

Final Year Project Report

Project Name Educational Quality Control System



Project Advisor:

Prof. Nabeel Sabir

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Submitted By:

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Session

2011-20165

University of Management and Technology

C-II Johar Town Lahore Pakistan

Dedication

We dedicate this to our loving parents for their magnificent, lovely and kind devotion to us, to our Teachers who taught us for making everything worthwhile and their courage and inspiration always cheered us up, to our siblings and to our lovely friends. In the end a little poetic dedication to our mentors.

Shall I compare myself to a bud in Easter-tide days?
Where art was more lovely and more temperate,
Strong winds do shake the buds of bray;
Sometimes too strong that the eyes of heaven shake.

You were like appall to us in the start,
Your raspy statements were irksome;
Later your existence turn to gratification,
"Your love", "Your affection", "Your sincerity"
Melt our hard hearts to the fullest.

Where nowhere was a sign of completion in dark monsoon,
You turn like a rainbow to sabbatical year;
Like Ikenga your good intentions achieved the success,
I took few words to describe your hard-work,
Which I am, sure is nothing in front of your endeavor;
Nothing in front of your long haul.

Like a parent, you and your people help us to the utmost,
You the mentor of humanity;
Without you we would have gone nowhere,
You taught us a moral.

After ALLAH, you turned this haze into verity;
You the one who planted a tree out of seed,
This small dedication
Dedication to my exalted teachers - Nabeel Sabir and Bilal Ghaffar
Who grew this plant into a big shady tree., the person who made our 4 y

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Final Approval

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It is certified that we have read this report submitted by Danyal Azam Chattha (110165066) and Ali Gulraiz (110165040) to complete the final project named as Educational Quality Control System at the University of Management and Technology, Lahore Pakistan to fulfill the requirement of the degree of the BS (SE) Software Engineering.

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Acknowledgment

We would like to acknowledge and extend our heartfelt gratitude to Almighty Allah, the most gracious, merciful and beneficent who help us in every field of life, by whose grace we have been able to complete this project successfully.

We feel great honor to express our sincere thanks and to pay our gratitude to respected, learned and reverend, Mr. Nabeel Sabir our project supervisor for his invaluable guidance, healthy criticism, deep concern and strong motivation regarding to our problem that we faced during our project. He guided us in critical times and helped us whenever we needed. This work would not have been possible without his guidance, kindness and encouragement.

We'd like to pay our sincere thanks to our Co-advisor, Mr. Hamza Jameel for his understanding and assistance. This project would have been impossible without his presence. He was always available for us.

We are also thankful to Mr. Shoaib Farooq, for guiding us the database tactics, Mr. Bilal HasanQA departmentMr. **** for assisting us in the data collection and providing necessary details, most especially to our families and friends, and again to God who made all these things possible.

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Project Title _____

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Educational Quality Control _____

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Objective _____

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Undertaken by _____

Supervised by _____

Starting Date _____

Completion Date _____

Tools Used _____

Operating System _____

Documentation _____

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Abstract

This project aims to provide the fast, time saving and reliable solution for the slow and manual evaluation system running in education sector. We are currently focusing on the structure of the universities. This system intends to provide a basic structure for the evaluation of teachers and education being provided. It will save the costs as well as time in multiple ways. Reliability is the top priority because what we expect from our system is the “reliable computed results”. It basically aims to implement a digital work place which is connected to a well maintained database, furthermore, it can become an online system. We intend to improve the quality of education by providing an efficient evaluation system. We are focusing on providing an easy pathway to the students for expressing their concerns related to the faculty. Our main goal is to implement a system which provides all above mentioned services and it will fit into approximately every higher educational institution. It will nearly eliminate a complete department of quality control running on paper based evaluations which are extremely time taking and sometimes inauthentic.

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REVISION CHART

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The document itself should be stored in revision control, and a brief description of each version should be entered in the Revision Control System. A brief description can be repeated in this section. Revisions need not be described elsewhere in the document, unless they explain the document.

Version	Primary Author(s)	Description of Version	Date Completed
Draft	Ali Gulraiz	Initial draft created for distribution and review comments Approval	(To be decided) TBD 28 th July 2015
Preliminary	TBD Danyal Azam Chattha	Second draft incorporating initial review comments, distributed for final review	15 th August 2015 TBD
Final	TBD Ali Gulraiz	First complete draft, which is placed under change control	TBD 26 th October 2015
Revision 1	Danyal Azam Chattha TBD	Revised draft, revised according to the change control process and maintained under change control	TBD 15 th November 2015
Revision 2	Danyal Azam Chattha TBD	Revised draft, revised according to the change control process and maintained under change control	7 th January 2016 TBD
Etc.	Ali Gulraiz TBD	TBD Revised according to the standards.	TBD 12 th January 2016

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~~PREFACE THE PREFACE CONTAINS AN INTRODUCTION TO THE DOCUMENT. IT IS OPTIONAL AND CAN BE DELETED IF DESIRED.~~

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LIST OF FIGURES

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1. Introduction

This section should describe the project and the software product being to be built. No text is necessary between the heading above and the heading below unless otherwise desired.

1.1 Project Overview

~~This document reflects the current requirements of the project (Educational Quality Control) as understood by the project team. This document presents an initial description of the various functionalities and services provided by the system. The document will also serve the basis for acceptance testing by the user.~~

1.2

~~1.3 Educational Quality Control system is alternative to the manual system of evaluating the teaching methods. It is offering a lot more features and flexibility compared to the previously implemented manual system and provides unbiased results at the end.~~

~~1.4 Our product will allow the users to:~~

~~1.5 Manage students, teachers and courses more effectively.~~

~~1.6 Manage the questionnaires against each course.~~

~~1.7 Allow the students to answer questionnaires against their respective courses.~~

~~1.8 Automatic evaluation of Answered Questionnaires.~~

~~1.9 Generate reports of evaluations.~~

~~1.10~~

~~1.11~~

~~1.12~~

Give a short summary of the project objective and the system to be analyzed

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Functional specifications are a description of needs or desires for a product. Identify and document what is really needed, in a form that clearly communicates to the client and to development team members. Define the requirements unambiguously, so that the risks are identified and there are no surprises when the product is finally delivered.

Following are the sample artifacts for this section:

- Problems or Overview Statement
- Customer
- Goals
- System functions
- System attributes

~~This document will explain the purpose and features of our product, its limitations, interface, and functionality of the system, constraints that affect the system functionality and also how the system will react to external stimuli. This document is intended for both the stake holder and the system developers.~~

•

1.13 Problem Statement

~~Without proper evaluation system no university can claim to provide the quality education. I would take the example of UMT here. UMT taught 1600 courses last semester. Each course had roughly 4 sections. Each section had at least 50 students. Straightly, UMT conducted 6,400 classes last semester. Each student filled the teacher evaluation questionnaire which means 320,000 questionnaires were filled. Three hundred and twenty thousand papers were taken care by department of quality assurance who processed these bundles manually. It took them whole semester to get evaluations from these papers. It was a too slow and hectic job. They calculated percentiles of each resource person by applying paper based formulas or by entering the collected values in their systems. Now such a hectic exercise can't produce accurate and reliable results. It doesn't generate reports too. The department is even unable to review the results because they can't save 320,000 questionnaires each semester hence we can't generate any kind of report after few semesters. Secondly, these figures point out another immense issue. If I portray that issue then it would be something like this, "A person enters in an ongoing class and breaks the momentum of the lecture by asking for 5 minutes for evaluation from recourse person. He passes on the questionnaires, only 20% students fill it sincerely and others just play tick/cross and like this whole process takes more than 15 minutes". Student's minds get diverted from the topic, it breaks the enthusiasm of the lecturer and majorly it wastes precious 20-25 minutes. Imagine this exercise disturbing 320,000 students and 6,400 teachers in 6,400 lectures; the picture is clear.~~

~~We are focusing on tackling this problem. Our database will work over the concepts of relational database so it will maintain all the relationships as a result of which university will be able to store their past results as well. It will generate reports about certain course or resource person as well. It will automatically compute the performance based percentiles after storing answers.~~

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The purpose of this project is to ...

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The problem statement should be brief, comprising of no more than 50 words

1.14 Customer

Current customer of this product is the University of Management and Technology. After the successful implementation and testing in UMT, this product will be ready to be used by other customers and institutions.

1.15 UMT is a chartered W4 category university situated in Lahore. UMT is currently using the manual system for the teacher evaluations, a paper based system which is highly hectic to perform and inaccurate. Institute seeks a better system which allows students to answer the questionnaires through a proper and faster channel. Institute wants the results to be generated themselves.

1.16 We are providing the customer with the best we can. Our system is extendable as well. It covers all the specifications specified by the Quality Assurance department of UMT.

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A brief description of the client. The organization, its products/services etc.

e.g.

Company X offers solutions for companies who want to establish a portal on the Trading Net and those who want to host portals for others. Company X was founded in 1992 and went public in 1998.

1.17 Affected Groups

1.18 This product has a wider scope. It directly affects the following groups:

1.19 Administrator

1.20 Students

1.21 Teachers

1.22 Quality Assurance Department

1.23

1.24 This product will be ran by the administrator. He will be the one making changes in the system. He will control the whole database through the C# built interface. Students will be counted as direct users as well. They will use the system for evaluating their respective courses. Thirdly, Teachers are the ones who basically get evaluated so it leaves important effects on them. Fourthly, Quality Assurance Department will be indirectly majorly affected by the system. It will reduce or nearly eliminate their work load.

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Those impacted by the deployment of the system. This can be a simple list as well as a bulleted one with short explanations.

e.g.

•Sales staff

•Cashiers

This may include users as well as support groups

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1.25 Assumptions

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1.26 This product is extendable. We intend to extend this product as well. It isn't online yet. We intend to make it online as well. Secondly, while implementing we will need cooperation by the Quality Assurance Department.

1.27 We will receive all support from Quality Assurance Department of UMT while implementing it.

1.28 After implementation our client will handle all the databases maintenance.

1.29 For online development phase, we will be provided time and all necessary resources.

1.30

1.31

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Things we assume will be true:

e.g.:

•We will receive all necessary technical support from the engineers at eMcRun, Select and Mellon Bank to help design the interfaces between their systems and enGyro.

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•All database maintenance will be handled by the client.

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•There will be no real-time interfacing with any accounting systems.

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1.32 Dependencies/ External Systems

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1.33 We are not majorly depending on any external systems. The systems which will be used or the systems on which the system will be depending are the ones used by our customer.

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Systems and/or products, this project depends upon for its completion.

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e.g:

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•Cyber Cash

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1.34 Definitions and Acronyms

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1.35

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Provide definitions or references to all the definitions of the special terms and acronyms used within this document.

1.36 Reference/ Source Documents

1.37 This all work was solely done by the project team i.e members

Provide references to all documents that have been consulted during the analysis phase.

1.38 Goals

Accuracy

1.39 Accuracy was the major concern because we needed the results to be accurately calculated. We assigned different weights to the options and through them we can accurately access the answers given by the users

Time Saving

Time saving was another major concern. The pervious system took almost a whole semester while calculating the results whereas this system will take seconds.

Cost saving

In previous system we need to hire a whole staff for going room to room. Seconedly, we printed a whole lot of paper and spend other resources as well. In this system it won't require a single penny.

User Friendly

1.40 The working environment of our system is very friendly. The user won't have to do much for giving feedback. He will just log in and give the feedback by opening desired feedback form. The Major goal behind this project is the accuracy and time saving. The old system ad many.

This brief section should focus on what the client wants to achieve. It must enumerate the objectives of the top management and what it hopes to accomplish from the proposed system.

STAKE HOLDERS

Administration

Quality Control Department

Teachers

Students

DOMAIN ANALYSIS

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System Functions/ Functional Requirements

2. Functional requirements of this project are deeply explained in the use case section.

This section is can be skipped, if Requirement Specifications document has been developed for the project. Otherwise this section is mandatory.

This section may contain

- end user, operator, support, or integration functions,
- performance requirements,
- design constraints,
- programming language, and
- interface requirements.

System functions are descriptions of what a system is supposed to do. They should be identified and listed in logical cohesive groups, with their category (priority) assigned. These system functions will be identified as a result of the requirement gathering process conducted with the client. However, in some cases, prior to the development of the Functional Specifications the requirements may already have been listed in a document: if this is so then a reference to the document may suffice.

To verify that some *X* is indeed a system function; it should make sense in the following sentence:

The system should do <*X*>

The table below gives an example of how system functions can be listed:

- The Functions column gives a brief one line description of the required functionality.
- The Category column refers to the status of the functionality for the proposed system. The options for the Category are defined below.
- The Attribute column defines the system characteristics. The Details and Constraints column specifies the conditions within which the attribute is applicable. Section 1.12 defines the default Attributes and the related Constraints. In case, the default conditions are to be over-riden then the conditions can be defined in this table.

Function Categories

Function-Category	Meaning
Evident	Should perform, and user should be cognizant that it is performed.
Hidden	Should perform, but not be visible to users. This is true of many underlying technical services, such as save information in a persistent storage mechanism. Hidden functions are often missed during the requirements gathering process.
Frill	Optional; adding it does not significantly affect cost or other functions.

Ref#	Functions	Category	Attribute	Details & Boundary Constraints
------	-----------	----------	-----------	--------------------------------

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RI.1	Record the underway sale the items purchased	Evident	System Response time	Price listing within 3 seconds Availability agreement in less than 10 sec
RI.2	Reduce inventory quantities when a sale is committed	Hidden	Concurrent user load	
---	---	---		

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~~System Attributes/ Nonfunctional Requirements~~

~~System attributes are nonfunctional system qualities such as ease of use. System attributes are characteristics of the system; they are not functions.~~

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~~System attributes have a possible set of Attribute Details, which tend to be discrete, fuzzy, symbolic values of the attribute, such as:~~

~~response time = psychologically appropriate~~

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~~interface metaphor = graphical, browser based~~

~~Some system attributes may also have Attribute Boundary Constraints, which are mandatory boundary conditions, usually on a numeric range of values of an attribute, such as:~~

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~~response time = five seconds maximum~~

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~~In this section the Category column indicates whether or not the attribute is critical for the operation of the system.~~

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~~The Category can take two options:~~

~~•Optional~~

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~~•Mandatory~~

Attribute	Details and Boundary Constraints	Category
Response time	(Boundary constraint) When recording a sold item, the description and price will appear within 5 seconds	Optional
Concurrent User Load	A minimum of 10 users connected simultaneously	Mandatory

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~~Non-Functional Requirements~~

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~~Performance Requirements~~

~~The system should be able to process and show the results of a query in a finite time based.~~

~~Safety Requirements~~

~~The software should preserve its data periodically to avoid any data loss~~

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~~System should save data offline in case of non-availability of network connection~~

Security Requirements

~~*The password should be at least 5 characters long and can contain both letters and numbers*~~

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Software Quality

~~*The system should be developed using a modular approach, which will allow easy integration of future add-ons and features*~~

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~~*The desktop software developed using C# should be testable.*~~

3. System Architecture

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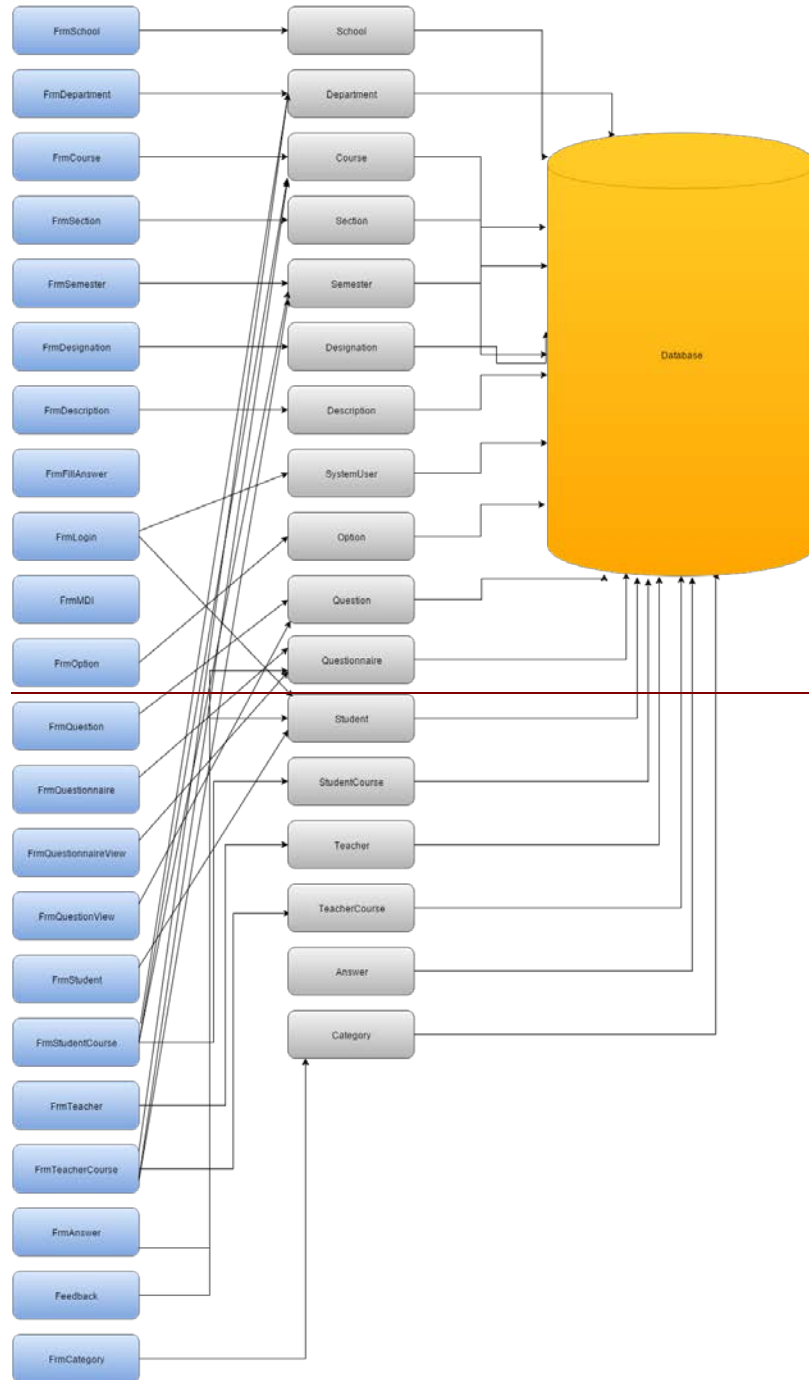
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Describe the system architecture, or simply provide the architecture diagram. For School system it may include web based front end, webservice, database etc. Don't worry too much about it just give a simple diagram of a typical web based project.

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3.1 System Architecture Diagram

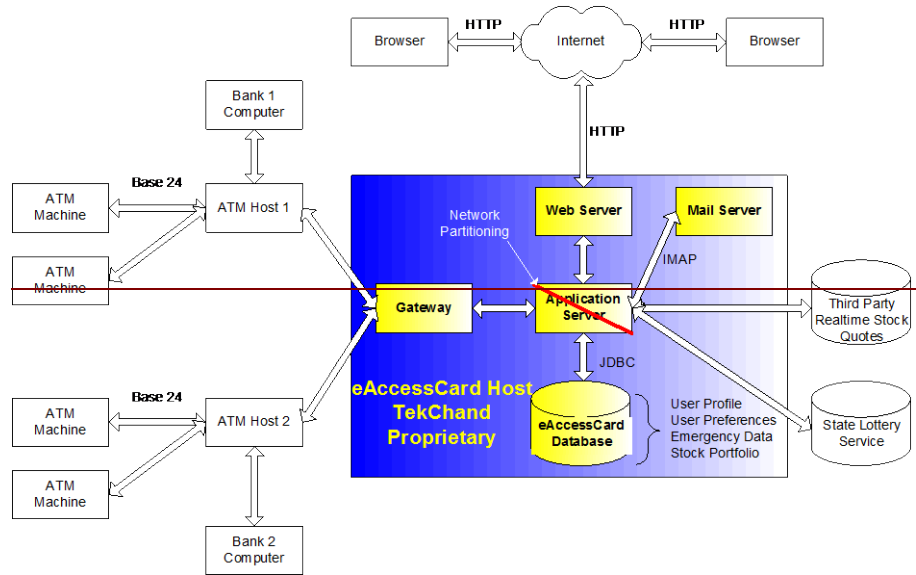


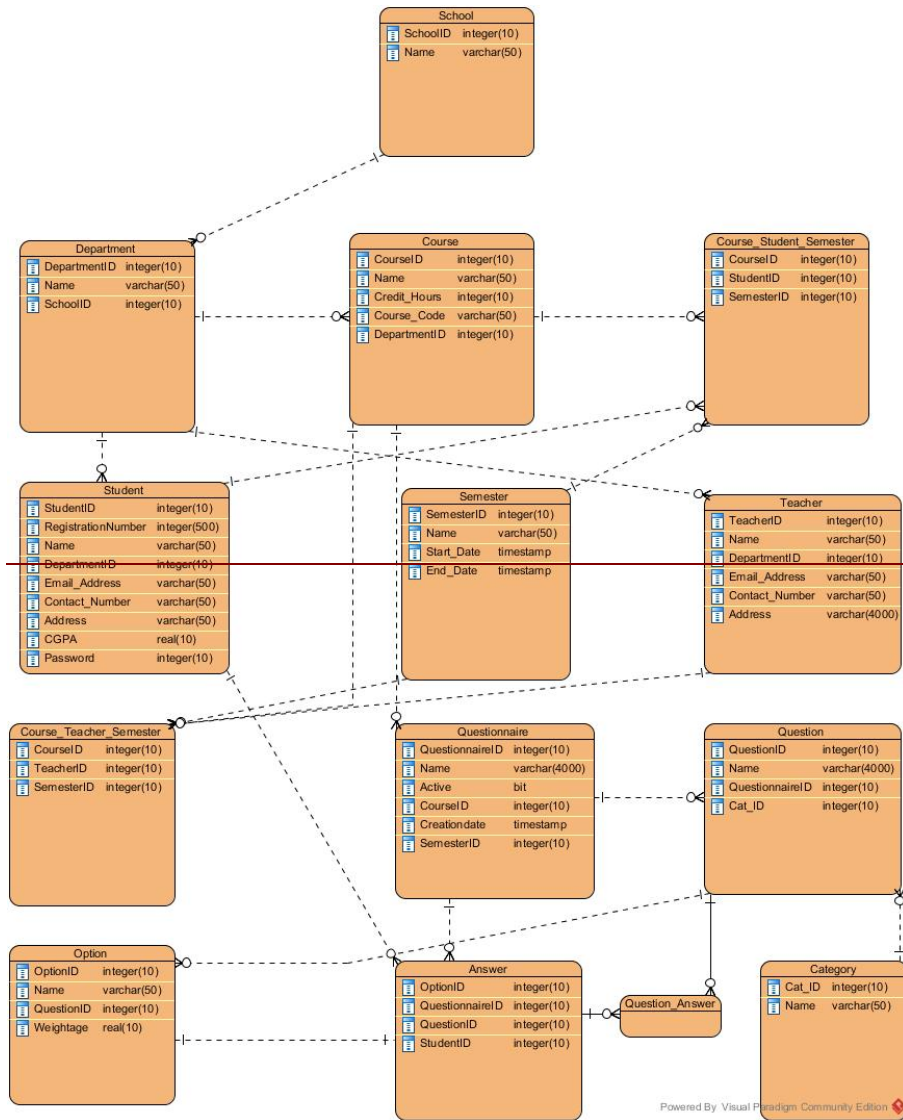
Figure 1 System Architecture

Entity relation diagram

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4. Data flow diagram

4.1 Data Flow Diagram Level 0

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~~4.2 Data Flow Diagram Level 1~~

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~~4.3 Data Flow Diagram Level 2~~

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~~5. Use Case Model~~

Describe the following items:

- ~~•Actors & use cases~~
- ~~•Use case diagrams~~
- ~~•High level, essential use cases~~

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~~5.1 List of Actors~~

~~5.2 The boundary of this system is not too wide. This system will be used by only two actors.~~

~~5.3 Administrator~~

~~5.4 Student~~

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~~Define the system boundary and list all actors with the use cases.~~

~~For example:~~

~~Cashier; this person performs all the financial activities~~

~~Account Manager; this person supervises all financial activities~~

~~5.5 List of Use Cases~~

~~5.6 There are total two actors. We have divided uses cases according to the actor.~~

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~~5.7 Administrator~~

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5.9

5.10 Login

5.11 Open Schools (Management)

5.12 View All Schools

5.13 Add Schools

5.14 Edit Schools

5.15 Delete Schools

5.16 Cancel Schools

5.17 Open Departments (Management)

5.18 View All Departments

5.19 View School wise Departments

5.20 Add Departments

5.21 Edit Departments

5.22 Delete Departments

5.23 Cancel Departments

5.24 Open Semesters (Management)

5.25 View All Semesters

5.26 Edit Semesters

5.27 Delete Semesters

5.28 Cancel Semesters

5.29 Open Courses (Management)

5.30 View All Courses

5.31 View Department wise Courses

5.32 Edit Courses

5.33 Delete Courses

5.34 Cancel Courses

5.35 Open Sections (Management)

5.36 View Sections

5.37 Edit Sections

5.38 Delete Sections

5.39 Cancel Sections

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[5.40 Open Teachers -> Manage \(Management\)](#)

[5.41 View All Teachers](#)

[5.42 View Department wise Teachers\(Manage\)](#)

[5.43 Add Teachers](#)

[5.44 Edit Teachers](#)

[5.45 Delete Teachers](#)

[Cancel Teachers \(Manage\)](#)

[Open Teachers -> Courses Assignment \(Management\)](#)

[View Department wise Teachers\(Courses Assignment\)](#)

[5.46 Assign Course to Teachers](#)

[5.47 Cancel List Teachers](#)

[5.48 Open Students -> Manage \(Management\)](#)

[View All Students](#)

[View Department wise Students\(Manage\)](#)

[Add Students](#)

[Edit Students](#)

[Delete Students](#)

[Cancel Students](#)

[Open Students -> Courses Assignment \(Management\)](#)

[View Department wise Students\(Courses Assignment\)](#)

[Assign Course to Students](#)

[Cancel List Students](#)

[Open Categories \(Management\)](#)

[5.49 View Categories](#)

[Add Categories](#)

[Edit Categories](#)

[Delete Categories](#)

[Cancel Categories](#)

[Open Description \(Management\)](#)

[View Description](#)

[Add Description](#)

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- ~~[Edit Description](#)~~
- ~~[Delete Description](#)~~
- ~~[Cancel Description](#)~~
- ~~[Open Designation \(Management\)](#)~~
- ~~[View Designation](#)~~
- ~~[Add Designation](#)~~
- ~~[Edit Designation](#)~~
- ~~**5.50** [Delete Designation](#)~~
- ~~**5.51** [Cancel Designation](#)~~
- ~~**5.52** [Open Manage Questionnaires -> Add \(Survey\)](#)~~
- ~~**5.53** [View All Questionnaires \(Add\)](#)~~
- ~~**5.54** [View Course wise Questionnaires \(Add\)](#)~~
- ~~**5.55** [View Semester Course wise Questionnaires \(Add\)](#)~~
- ~~**5.56** [Add Questionnaire](#)~~
- ~~**5.57** [Edit Questionnaire](#)~~
- ~~**5.58** [Delete Questionnaire](#)~~
- ~~**5.59** [Cancel Questionnaire](#)~~
- ~~**5.60** [Open Manage Questionnaires -> View \(Survey\)](#)~~
- ~~[View All Questionnaires \(View\)](#)~~
- ~~[View Course wise Questionnaires \(View\)](#)~~
- ~~[View Semester Course wise Questionnaires \(View\)](#)~~
- ~~**5.61** [Open Manage Questions -> Add \(Survey\)](#)~~
- ~~**5.62** -~~
- ~~**5.63** [Add Options to List](#)~~
- ~~[Add Questions with Options](#)~~
- ~~**5.64** [Cancel Questions](#)~~
- ~~**5.65** [Open Manage Questions -> View \(Survey\)](#)~~
- ~~**5.66** [View All Questions](#)~~
- ~~**5.67** [View Questionnaire wise Questions](#)~~
- ~~**5.68** -~~
- ~~**5.69** -~~

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~~5.70~~ REPORTS

~~5.71~~ Cancel (Cross)

~~5.72~~ Minimize (Screen)

~~5.73~~ Maximize (Screen)

~~5.74~~ Logout (File)

~~5.75~~ Exit (File)

~~5.76~~

~~5.77~~ Student

~~5.78~~

~~5.79~~ Login

~~5.80~~ Open Feedback (Give Feedback)

~~5.81~~ Select Course (Feedback)

~~5.82~~ Select Questionnaire (Feedback)

~~Fill the feedback~~

~~5.83~~

~~5.84~~

~~5.85~~

~~5.86~~

~~5.87~~

~~5.88~~

~~5.89~~

List all the use cases, with a brief description (should not exceed two lines):

Buy Item: captures a sale and its payment

Log In: allow user to provide account information and access the restricted services

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5.90 Use Case Diagram

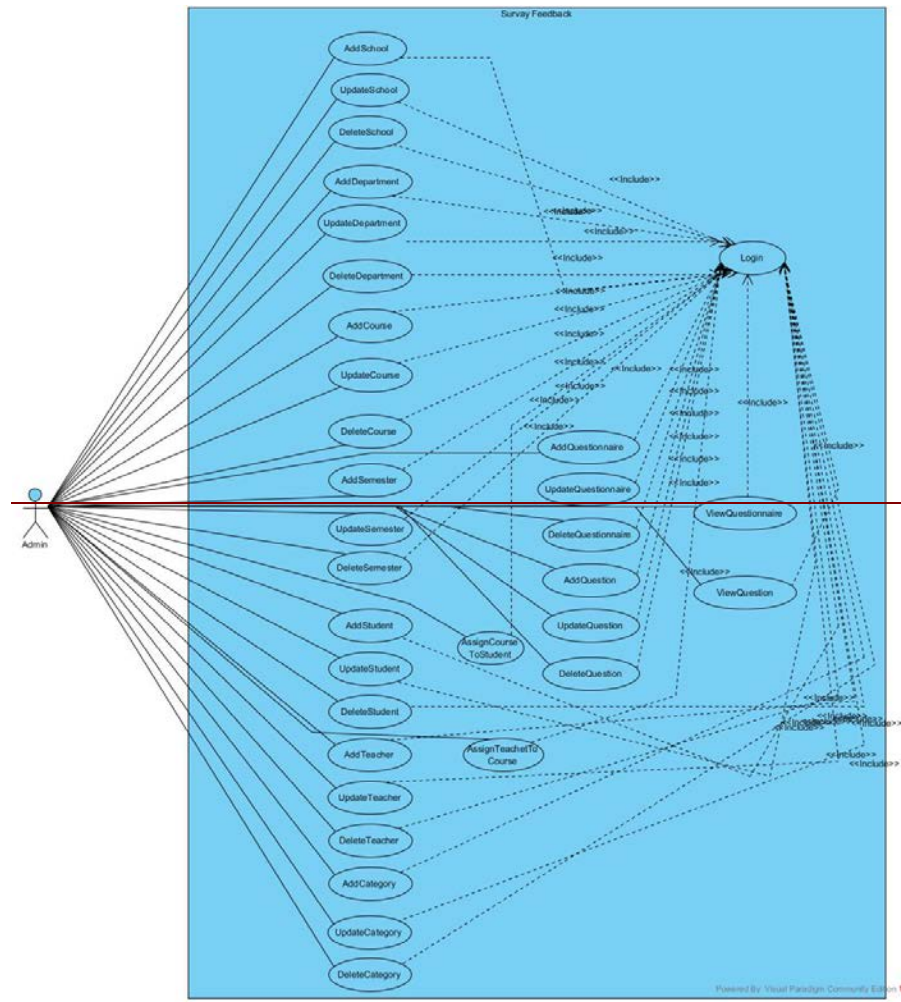
5.91

5.92 Admin Level

5.93

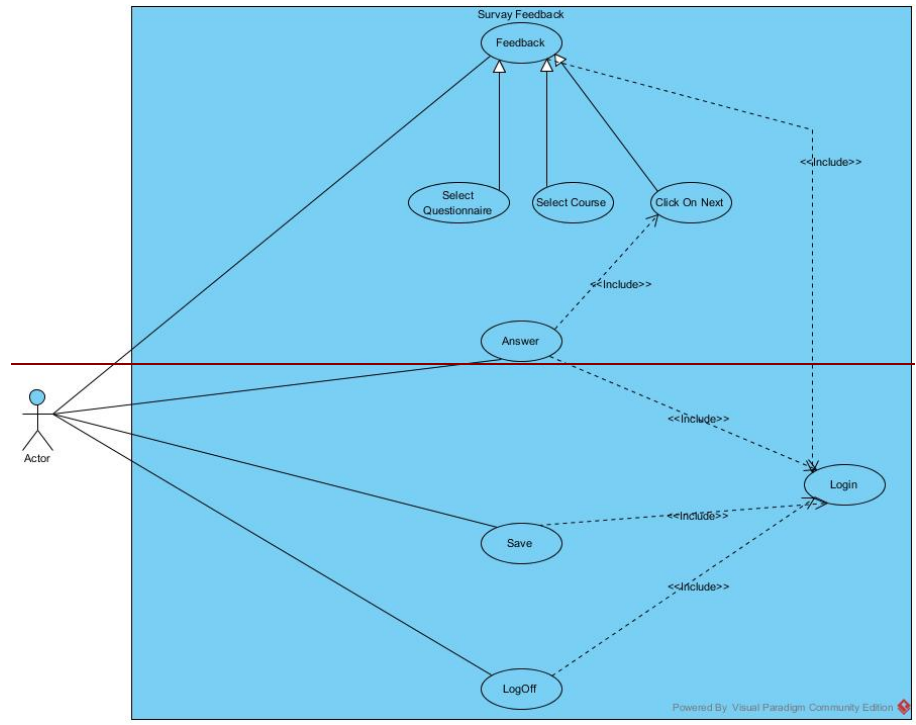
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Create the system level use case diagram



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Student Level



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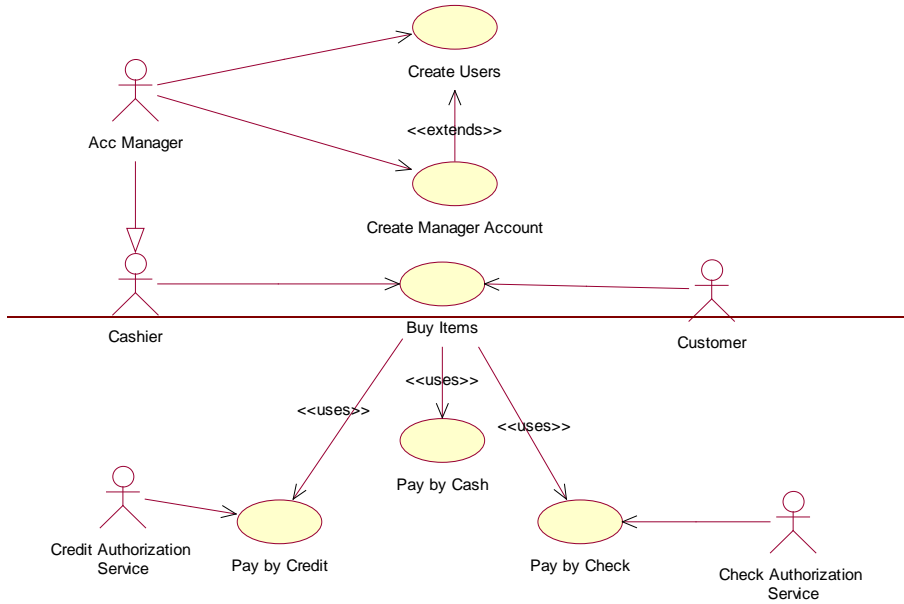


Figure 12 System Level Use Case Diagram

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~~5.94 Use Case Buy Item Descriptions~~

~~5.95 Administrator~~

~~5.96 Login~~

~~5.97~~

Identifier	7.2.1 (1) Login	
Purpose	Admin Login to software by entering login info (username, password)	
Priority	High	
Pre-conditions	Software is Open and connected to the server	
Post-conditions	Admin is Logged in	
Typical Course of Action		
S#	Actor Action	System Response
1	Open the login form/windows	
2		Login form opens
3	Enters valid username and password which belongs to the system user	
4		Login the admin and opens the main MDI form
Alternate Course of Action		
S#	Actor Action	System Response
1	Admin enters invalid username and password	
2		Displays an error message "Invalid username or password"

~~5.98~~

~~5.99~~

~~5.100~~

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~~5.106~~

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~~5.107~~

~~5.108~~

~~5.109~~ Open Schools (Management)

~~5.110~~

Identifier	7.2.1 (2) – Open Schools	
Purpose	Admin opens the school form for performing different actions/functions	
Priority	HighMedium	
Pre-conditions	Admin has logged in	
Post-conditions	Admin manages the school form	
Typical Course of Action		
S#	Actor Action	System Response
1	Admin Logs in	The main MDI form gets opened
2	Admin clicks on the Management list (Displayed in menu strip)	Management list opens
3	Admin clicks on the School (Menu Strip Item)	School is opened/displayed
4		
Alternate Course of Action		
S#	Actor Action	System Response
1	Admin enters invalid username and password	
2		Displays an error message "Invalid username or password"

~~5.111~~

~~5.112~~

~~5.113~~ View all Schools (Management)

~~5.114~~

Identifier	7.2.1 (3) – View all Schools
Purpose	To view all the Schools which exist in the system. (database)
Priority	Medium
Pre-conditions	School form is opened from the Management list.

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Post-conditions	<u>List of all the existing schools is displayed in Grid Contents</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Admin clicks on the Management list (Displayed in menu strip)</u>	<u>Management list opens</u>
<u>3</u>	<u>Admin clicks on the School (Menu Strip Item)</u>	<u>School form is opened/displayed</u>
<u>4</u>	<u>Admin looks at the Grid Contents</u>	<u>List of all schools is already displayed</u>

~~5.115~~

~~5.116~~

~~5.117~~ Add Schools (Management)

Document each use case. This can be completed using the tables provided below:

Identifier	<u>7.2.1 (4) Add Schools</u>	
Purpose	<u>To add the new schools in the database for later usage.</u>	
Priority	<u>High</u>	
Pre-conditions	<u>School form is opened</u>	
Post-conditions	<u>New School is added in the database</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logins</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Opens the School form</u>	<u>School form is displayed</u>
<u>3</u>	<u>Fills the "name" text field.</u>	<u>Text Field takes the input successfully</u>
<u>4</u>	<u>Click on the save button</u>	<u>It saves the new school and displays it on Grid Contents</u>

Edit Schools (Management)

Identifier	<u>7.2.1 (5) Edit Schools</u>	
Purpose	<u>To edit the existing school data</u>	
Priority	<u>High</u>	

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Pre-conditions	<u>Schools have been added in the database</u>	
Post-conditions	<u>New edited school data will be saved</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>Main MDI form opens</u>
<u>2</u>	<u>Opens the School form</u>	<u>School form is displayed</u>
<u>3</u>	<u>Clicks on the "edit" box shown in front of School name in Grid</u>	<u>Name of selected school is displayed in "Name" field.</u>
<u>4</u>	<u>Changes the name and click on "Save" button</u>	<u>School name is changed and shown in Grid</u>
Alternate Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Does not change the name of School and saves the same</u>	<u>That same School Name is displayed in Grid again</u>
<u>2</u>		
<u>Delete Schools</u>		
Identifier	<u>7.2.1 (6) Delete Schools</u>	
Purpose	<u>To Delete the existing school data</u>	
Priority	<u>High</u>	
Pre-conditions	<u>Schools are saved in the database</u>	
Post-conditions	<u>Selected Schools will deleted</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>Main MDI form opens</u>
<u>2</u>	<u>Opens the School form</u>	<u>School form is displayed</u>
<u>3</u>	<u>Clicks on the "Delete" box shown in front of School name in Grid</u>	<u>School name is highlighted</u>
<u>4</u>	<u>Clicks on the save button</u>	<u>School name is deleted and updated School names are shown in Grid</u>
Alternate Course of Action		

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S#	Actor Action	System Response
<u>1</u>	<u>Clicks on the "Delete" box shown in front of School name in Grid</u>	<u>School name is highlighted</u>
<u>2</u>	<u>Clicks on the cancel button</u>	<u>School isn't deleted</u>

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Cancel Schools

Identifier	<u>7.2.1 (7) – Cancel Schools</u>
Purpose	<u>To Cancel the action which admin was going to perform</u>
Priority	<u>Low</u>
Pre-conditions	<u>School form is opened</u>
Post-conditions	<u>Action is cancelled</u>

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Typical Course of Action

S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>Main MDI form opens</u>
<u>2</u>	<u>Opens the School form</u>	<u>School form is displayed</u>
<u>3</u>	<u>Clicks on the Delete or edit</u>	<u>School name is highlighted and shown in Name field.</u>
<u>4</u>	<u>Clicks on the Cancel button</u>	<u>Name field is cleared and action is cancelled</u>

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Alternate Course of Action

S#	Actor Action	System Response
<u>1</u>	<u>Types the data in the fields</u>	<u>Typed data is shown in the fields</u>
<u>2</u>	<u>Clicks on the cancel button</u>	<u>Fields are cleared</u>

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Open Departments

Identifier	<u>7.2.1 (8) – Open Departments</u>
Purpose	<u>Admin opens the Department form for performing different actions/functions</u>

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Priority	<u>Medium</u>	
Pre-conditions	<u>Admin has logged in</u>	
Post-conditions	<u>Admin manages the Department form</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Admin clicks on the Management list (Displayed in menu strip)</u>	<u>Management list opens</u>
<u>3</u>	<u>Admin clicks on the Department (Menu Strip Item)</u>	<u>Department is opened/displayed</u>
<u>4</u>		

View All Departments

Identifier	<u>7.2.1 (9) View all Departments</u>	
Purpose	<u>To view all the Schools which exist in the system. (database)</u>	
Priority	<u>Medium</u>	
Pre-conditions	<u>Department form is opened from the Management list.</u>	
Post-conditions	<u>List of all the existing departments is displayed in Grid Contents</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Admin clicks on the Management list (Displayed in menu strip)</u>	<u>Management list opens</u>
<u>3</u>	<u>Admin clicks on the Department (Menu Strip Item)</u>	<u>Department form is opened/displayed</u>
<u>4</u>	<u>Admin looks at the Grid Contents</u>	<u>List of all Departments is already displayed</u>

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View School wise Departments

Identifier	<u>7.2.1 (10) – View School wise Departments</u>	
Purpose	<u>To view all the Departments which exist in the Selected School.</u>	
Priority	<u>Low</u>	
Pre-conditions	<u>Department form is opened from the Management list.</u>	
Post-conditions	<u>List of all the departments in particular School is displayed in Grid Contents</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Admin clicks on the Management list (Displayed in menu strip)</u>	<u>Management list opens</u>
<u>3</u>	<u>Admin clicks on the Department (Menu Strip Item)</u>	<u>Department form is opened/displayed</u>
<u>4</u>	<u>Click on the School Combo Box</u>	<u>Combo List is opened</u>
<u>5</u>	<u>Click on the desired School</u>	<u>Departments stored against that school are displayed</u>

Add Departments

Identifier	<u>7.2.1 (11) – Add Departments</u>	
Purpose	<u>To add the new departments in the database for later usage.</u>	
Priority	<u>High</u>	
Pre-conditions	<u>Department form is opened</u>	
Post-conditions	<u>New Department is added in the database</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logins</u>	<u>The main MDI form gets opened</u>

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<u>2</u>	<u>Opens the SchoolDepartment form</u>	<u>DepartmentSchool form is displayed</u>
<u>3</u>	<u>Fills the "name" text field.</u>	<u>Text Field takes the input successfully</u>
<u>4</u>	<u>Chooses the relevant School from the combo box</u>	<u>School is selected</u>
<u>5</u>	<u>Click on the save button</u>	<u>It saves the new department and displays it on Grid Contents</u>

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Edit Departments

Identifier	<u>7.2.1 (5) – Edit Departments</u>
Purpose	<u>To edit the existing department data</u>
Priority	<u>High</u>
Pre-conditions	<u>Departments have been added in the database</u>
Post-conditions	<u>New edited department data will be saved</u>

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Typical Course of Action

S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>Main MDI form opens</u>
<u>2</u>	<u>Opens the department form</u>	<u>Department form is displayed</u>
<u>3</u>	<u>Clicks on the "edit" box shown in front of Department name in Grid</u>	<u>Data of selected Department is displayed in fields.</u>
<u>4</u>	<u>Changes the data and click on "Save" button</u>	<u>Department data is changed and shown in Grid</u>

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Alternate Course of Action

S#	Actor Action	System Response
<u>1</u>	<u>Does not change the data of Department and saves the same</u>	<u>That same Department is displayed in Grid again</u>
<u>2</u>		

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Delete Departments

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Identifier	<u>7.2.1 (13) — Delete Departments</u>
Purpose	<u>To Delete the existing department data</u>
Priority	<u>High</u>
Pre-conditions	<u>Departments are saved in the database</u>
Post-conditions	<u>Selected Departments will be deleted</u>

Typical Course of Action

S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>Main MDI form opens</u>
<u>2</u>	<u>Opens the Department form</u>	<u>Department form is displayed</u>
<u>3</u>	<u>Clicks on the “Delete” box shown in front of Department data in Grid</u>	<u>Department data is highlighted</u>
<u>4</u>	<u>Clicks on the save button</u>	<u>Department is deleted and updated Departments are shown in Grid</u>

Alternate Course of Action

S#	Actor Action	System Response
<u>1</u>	<u>Clicks on the “Delete” box shown in front of Department in Grid</u>	<u>Department is highlighted</u>
<u>2</u>	<u>Clicks on the cancel button</u>	<u>Department isn't deleted</u>

Cancel Schools

Identifier	<u>7.2.1 (14) — Cancel Departments</u>
Purpose	<u>To Cancel the action which admin was going to perform</u>
Priority	<u>Low</u>
Pre-conditions	<u>Department form is opened</u>
Post-conditions	<u>Action is cancelled</u>
Typical Course of Action	

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<u>S#</u>	<u>Actor Action</u>	<u>System Response</u>
<u>1</u>	<u>Admin Logs in</u>	<u>Main MDI form opens</u>
<u>2</u>	<u>Opens the Department form</u>	<u>Department form is displayed</u>
<u>3</u>	<u>Clicks on the Delete or edit</u>	<u>Department data is highlighted and shown in respective fields.</u>
<u>4</u>	<u>Clicks on the Cancel button</u>	<u>fields are cleared and action is cancelled</u>

Alternate Course of Action

<u>S#</u>	<u>Actor Action</u>	<u>System Response</u>
<u>1</u>	<u>Types the data in the fields</u>	<u>Typed data is shown in the fields</u>
<u>2</u>	<u>Clicks on the cancel button</u>	<u>Fields are cleared</u>

Open Semesters

<u>Identifier</u>	<u>7.2.1 (15) – Open Semesters</u>
<u>Purpose</u>	<u>Admin opens the Semester form for performing different actions/functions</u>
<u>Priority</u>	<u>Medium</u>
<u>Pre-conditions</u>	<u>Admin has logged in</u>
<u>Post-conditions</u>	<u>Admin manages the Semester form</u>

Typical Course of Action

<u>S#</u>	<u>Actor Action</u>	<u>System Response</u>
<u>1</u>	<u>Admin Logs in</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Admin clicks on the Management list (Displayed in menu strip)</u>	<u>Management list opens</u>
<u>3</u>	<u>Admin clicks on the Semester (Menu Strip Item)</u>	<u>Semester is opened/displayed</u>
<u>4</u>		

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View All Semester

Identifier	<u>7.2.1 (16) – View all Semesters</u>	
Purpose	<u>To view all the Semesters which exist in the system. (database)</u>	
Priority	<u>Medium</u>	
Pre-conditions	<u>Semester form is opened from the Management list.</u>	
Post-conditions	<u>List of all the existing Semesters is displayed in Grid Contents</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Admin clicks on the Management list (Displayed in menu strip)</u>	<u>Management list opens</u>
<u>3</u>	<u>Admin clicks on the Semester (Menu Strip Item)</u>	<u>Semester form is opened/displayed</u>
<u>4</u>	<u>Admin looks at the Grid Contents</u>	<u>List of all Semesters is already displayed</u>

Add Semesters

Identifier	<u>7.2.1 (17) – Add Semesters</u>	
Purpose	<u>To add the new Semesters in the database for later usage.</u>	
Priority	<u>High</u>	
Pre-conditions	<u>Semester form is opened</u>	
Post-conditions	<u>New Semester is added in the database</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logins</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Opens the Semester form</u>	<u>Semester form is displayed</u>
<u>3</u>	<u>Fills the “name” text field.</u>	<u>Text Field takes the input successfully</u>
<u>4</u>	<u>Click on the save button</u>	<u>It saves the new Semester and displays it on Grid Contents</u>

Edit Semesters

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		<u>Semester names are shown in Grid</u>
<u>Alternate Course of Action</u>		
<u>S#</u>	<u>Actor Action</u>	<u>System Response</u>
<u>1</u>	<u>Clicks on the "Delete" box shown in front of Semester name in Grid</u>	<u>Semester name is highlighted</u>
<u>2</u>	<u>Clicks on the cancel button</u>	<u>Semester isn't deleted</u>

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Cancel Semesters

<u>Identifier</u>	<u>7.2.1 (20) – Cancel Semesters</u>
<u>Purpose</u>	<u>To Cancel the action which admin was going to perform</u>
<u>Priority</u>	<u>Low</u>
<u>Pre-conditions</u>	<u>Semester form is opened</u>
<u>Post-conditions</u>	<u>Action is cancelled</u>

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Typical Course of Action

<u>S#</u>	<u>Actor Action</u>	<u>System Response</u>
<u>1</u>	<u>Admin Logs in</u>	<u>Main MDI form opens</u>
<u>2</u>	<u>Opens the Semester form</u>	<u>Semester form is displayed</u>
<u>3</u>	<u>Clicks on the Delete or edit</u>	<u>Semester name is highlighted and shown in Name field.</u>
<u>4</u>	<u>Clicks on the Cancel button</u>	<u>Name field is cleared and action is cancelled</u>

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Alternate Course of Action

<u>S#</u>	<u>Actor Action</u>	<u>System Response</u>
<u>1</u>	<u>Types the data in the fields</u>	<u>Typed data is shown in the fields</u>
<u>2</u>	<u>Clicks on the cancel button</u>	<u>Fields are cleared</u>

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Open Courses

<u>Identifier</u>	<u>7.2.1 (21) – Open Courses</u>
<u>Purpose</u>	<u>Admin opens the Course form for performing different</u>

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	<u>actions/functions</u>	
Priority	<u>Medium</u>	
Pre-conditions	<u>Admin has logged in</u>	
Post-conditions	<u>Admin manages the Course form</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Admin clicks on the Management list (Displayed in menu strip)</u>	<u>Management list opens</u>
<u>3</u>	<u>Admin clicks on the Course (Menu Strip Item)</u>	<u>Course is opened/displayed</u>
<u>4</u>		
 <u>View All Courses</u>		
Identifier	<u>7.2.1 (22) – View all Courses</u>	
Purpose	<u>To view all the Courses which exist in the system. (database)</u>	
Priority	<u>Medium</u>	
Pre-conditions	<u>Course form is opened from the Management list.</u>	
Post-conditions	<u>List of all the existing Courses is displayed in Grid Contents</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Admin clicks on the Management list (Displayed in menu strip)</u>	<u>Management list opens</u>
<u>3</u>	<u>Admin clicks on the Course (Menu Strip Item)</u>	<u>Courseform is opened/displayed</u>
<u>4</u>	<u>Admin looks at the Grid Contents</u>	<u>List of all Courses is already displayed</u>
 <u>View Depaartment wise Courses</u>		

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Identifier	<u>7.2.1 (23) – View Department wise Courses</u>	
Purpose	<u>To view all the Courses which exist in the Selected Department.</u>	
Priority	<u>Low</u>	
Pre-conditions	<u>Course form is opened from the Management list.</u>	
Post-conditions	<u>List of all the Courses in particular Department is displayed in Grid Contents</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Admin clicks on the Management list (Displayed in menu strip)</u>	<u>Management list opens</u>
<u>3</u>	<u>Admin clicks on the Course (Menu Strip Item)</u>	<u>Course form is opened/displayed</u>
<u>4</u>	<u>Click on the Department Combo-Box</u>	<u>Combo List is opened</u>
<u>5</u>	<u>Click on the desired Department</u>	<u>Courses stored against that school are displayed</u>

Add Courses

Identifier	<u>7.2.1 (24) – Add Courses</u>	
Purpose	<u>To add the new Courses in the database for later usage.</u>	
Priority	<u>High</u>	
Pre-conditions	<u>Course form is opened</u>	
Post-conditions	<u>New Course is added in the database</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logins</u>	<u>The main MDI form gets opened</u>
<u>2</u>	<u>Opens the Course form</u>	<u>Course form is displayed</u>
<u>3</u>	<u>Fills all text field.</u>	<u>Text Fields take the input successfully</u>
<u>4</u>	<u>Chooses the relevant Department from the combo box</u>	<u>Department is selected</u>
<u>5</u>	<u>Click on the save button</u>	<u>It saves the new Course and displays it on Grid Contents</u>

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Edit Courses

Identifier	<u>7.2.1 (25) – Edit Courses</u>	
Purpose	<u>To edit the existing Course data</u>	
Priority	<u>High</u>	
Pre-conditions	<u>Courses have been added in the database</u>	
Post-conditions	<u>New edited Course data will be saved</u>	
Typical Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Admin Logs in</u>	<u>Main MDI form opens</u>
<u>2</u>	<u>Opens the Course form</u>	<u>Course form is displayed</u>
<u>3</u>	<u>Clicks on the “edit” box shown in front of Course name in Grid</u>	<u>Data of selected Course is displayed in fields.</u>
<u>4</u>	<u>Changes the data and click on “Save” button</u>	<u>Course data is changed and shown in Grid</u>
Alternate Course of Action		
S#	Actor Action	System Response
<u>1</u>	<u>Does not change the data of Course and saves the same</u>	<u>That same Course is displayed in Grid again</u>
<u>2</u>		

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Delete Courses

Identifier	<u>7.2.1 (26) – Delete Courses</u>	
Purpose	<u>To Delete the existing Course data</u>	
Priority	<u>High</u>	
Pre-conditions	<u>Courses are saved in the database</u>	
Post-conditions	<u>Selected Course will deleted</u>	

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Section: Main

Name: Buy Item

Actors: Customer, Cashier

Purpose: Capture a sale and its payment.

Description: A customer arrives at a checkout with items to purchase. The cashier records the purchase items and collects a payment. On completion, the customer leaves with the items.

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<i>Cross References:</i>	Functions: R1.1, R1.2			Formatted: Justified
	Use Cases: Cashier must have completed the Log In use case. This is a reference to the System Functions as described in Section 1.10			Formatted: Normal
<i>Pre-Conditions</i>	Assumption about the state of the system before execution of the operation			Formatted: Normal
<i>Successful Post Conditions</i>	State of the system after completion of the operation.			Formatted: Normal
<i>Failure Post Conditions</i>	State of the system after completion of the operation.			Formatted: Normal
Typical Course of Events				Formatted: Normal
Actor Action		System Response		Formatted: Normal
1	This use case begins when a customer arrives at the Point of Sale checkout with items to purchase.			Formatted: Normal
2	The cashier records each item	3	Determines the item price and adds the item information to the running sales transaction.	Formatted: Normal
4	...	5	...	Formatted: Normal
7	Customer selects payment type: a.If cash payment, see section Pay by Cash b.If credit payment, see section Pay by Credit			Formatted: Normal
		8	Logs the completed sale	Formatted: Normal, No bullets or numbering
		9	Updates inventory levels	Formatted: Normal
		10	Generates a receipt	Formatted: Normal
11	Cashier gives the receipt to the customer			Formatted: Normal
12	The customer leaves with the items purchased			Formatted: Justified
Alternative Course				Formatted: Normal
<i>Step 2:</i>	Invalid item identifier entered. Indicate error.			Formatted: Justified
<i>Step 7:</i>	Customer could not pay. Cancel sales transaction			Formatted: Normal
Section: Pay by Cash				Formatted: Normal
Typical Course of Events				Formatted: Normal
Actor Action		System Response		Formatted: Normal
1	The customer makes a cash payment			Formatted: Justified, Tab stops: 6", Right
2	The cashier records the cash tendered	3	Presents the balance due back to the customer, if any.	Formatted: Font: 10 pt
4	The Cashier deposits the cash received and extracts the			Formatted: Font: 10 pt

balance owing and gives it to the customer

Alternative Courses

Step 1: Customer does not have sufficient cash, may cancel sale or initiate another payment method.

Step 4: Cash drawer does not contain sufficient cash to pay balance.

3.4.54.4.1 Use Case Add Item (to sale)

Document each use case. This can completed using the tables provided below:

Section: Main

Name: Add Item (to sale)

Actors: Students, Stakeholders and Interest: What are these?

Purpose: Add an Item on website to sale it.

Description: A customer arrives at a checkout with items to purchase. The cashier records the purchase items and collects a payment. On completion, the customer leaves with the items.

Cross References: Functions: R1.1, R1.2

Use Cases: Cashier must have completed the Log In use case. This is a reference to the System Functions as described in Section 1.10

Pre Conditions Assumption about the state of the system before execution of the operation

Successful Post Conditions State of the system after completion of the operation.

Failure Post Conditions State of the system after completion of the operation.

Typical Course of Events

Actor Action		System Response	
1	This use case begins when a customer arrives at the Point of Sale checkout with items to purchase.		
2	The cashier records each item	3	Determines the item price and adds the item information to the running sales transaction.
4	...	5	...
7	Customer selects payment type: e. If cash payment, see section Pay by Cash d. If credit payment, see section Pay by Credit		

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		8	Logs the completed sale
		9	Updates inventory levels
		10	Generates a receipt
11	Cashier gives the receipt to the customer		
12	The customer leaves with the items purchased		

Alternative Course

Step 2: Invalid item identifier entered. Indicate error.

Step 7: Customer could not pay. Cancel sales transaction

Section: Pay by Cash

Typical Course of Events

Actor Action		System Response	
1	The customer makes a cash payment		
2	The cashier records the cash tendered	3	Presents the balance due back to the customer, if any.
4	The Cashier deposits the cash received and extracts the balance owing and gives it to the customer		

Alternative Courses

Step 1: Customer does not have sufficient cash, may cancel sale or initiate another payment method.

Step 4: Cash drawer does not contain sufficient cash to pay balance.

5.118 System Sequence Diagrams

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5.120 Assign Course to Students

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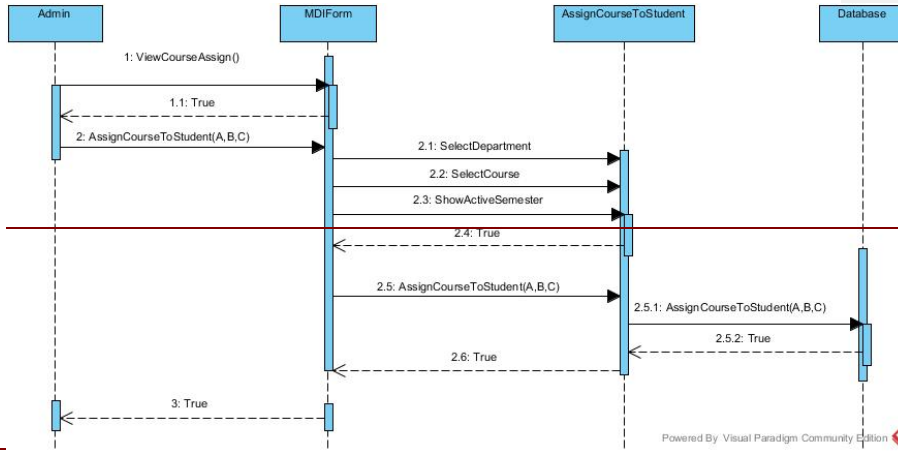
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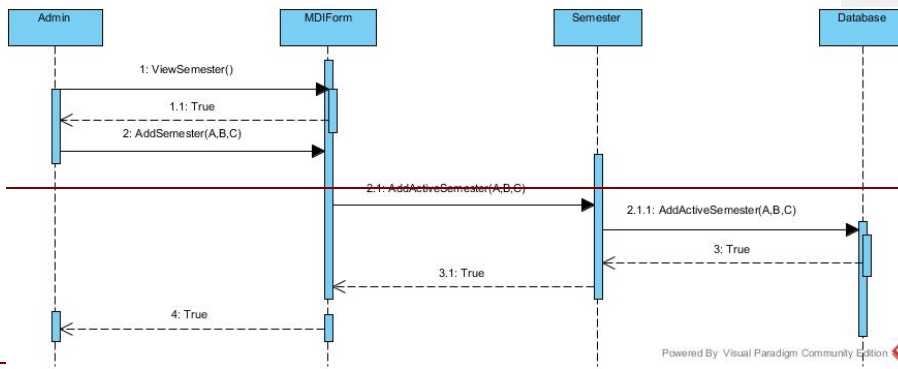
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~~5.124~~ Add Semester

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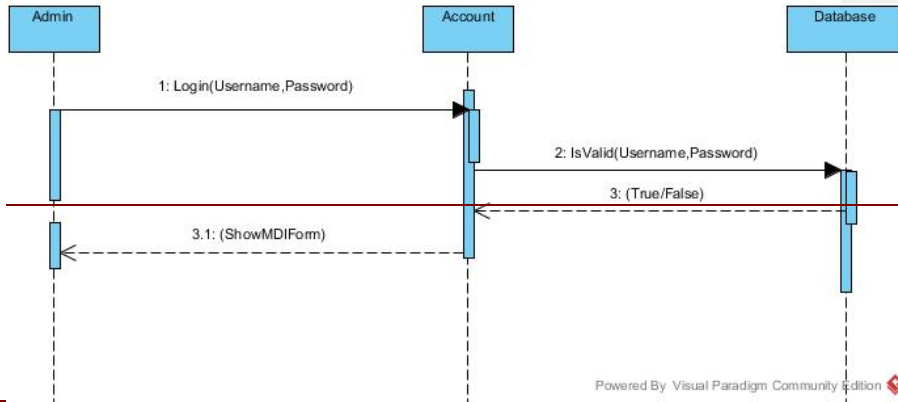
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~~5.130~~ Admin Login

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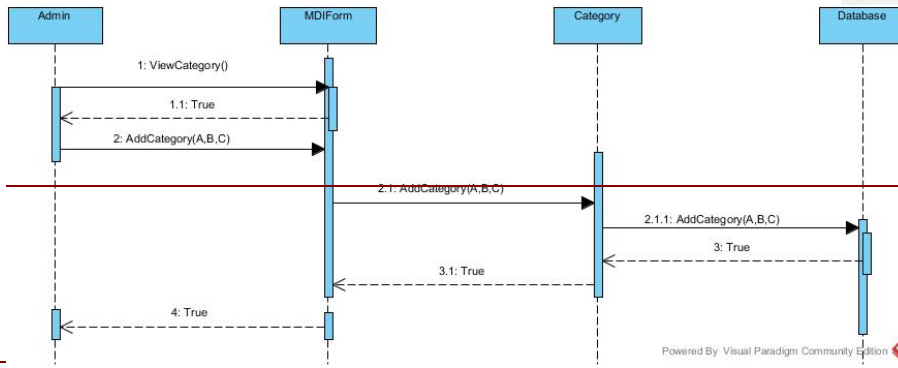
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~~5.135~~ Add Category

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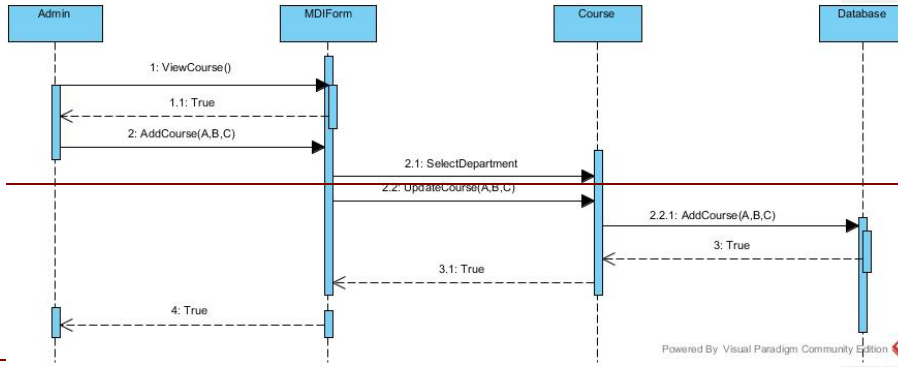
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~~5.139~~ Add Course

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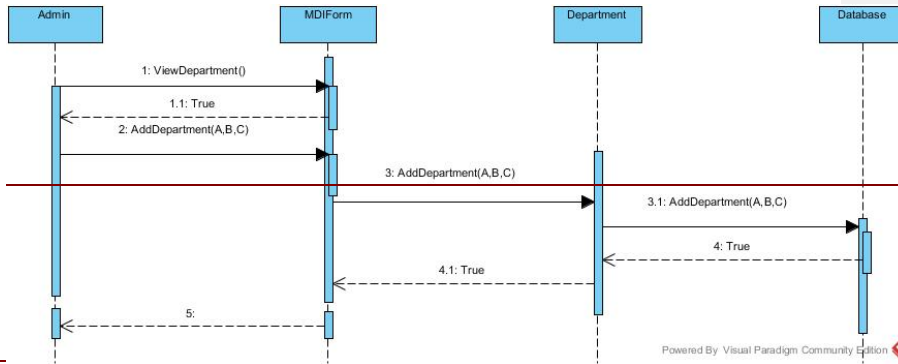
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~~5.144~~ Add Department

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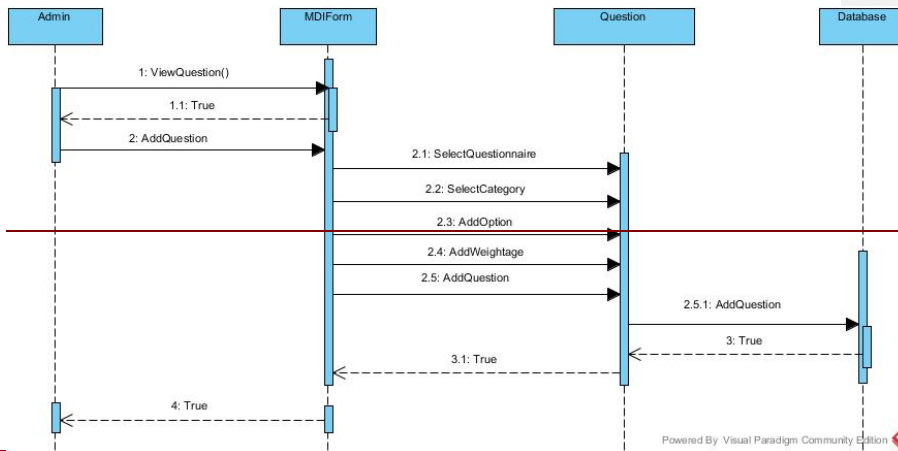
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~~5.155~~ Add Question

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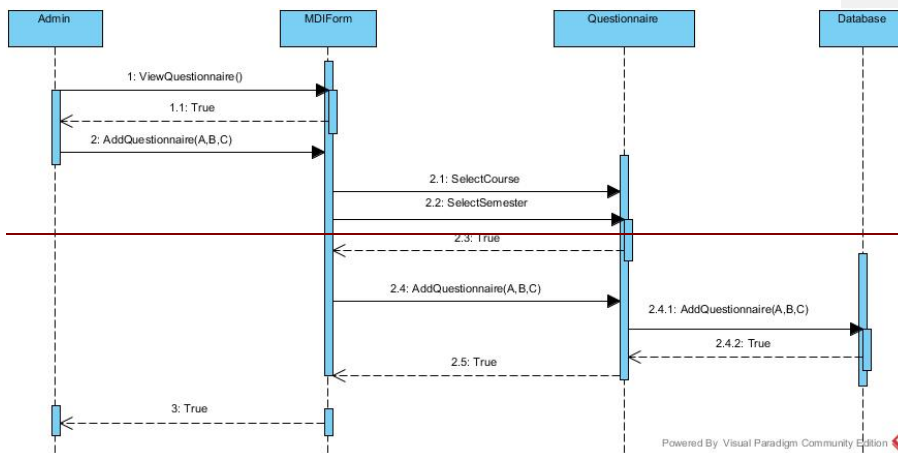
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~~5.161~~ Add Questionnaire

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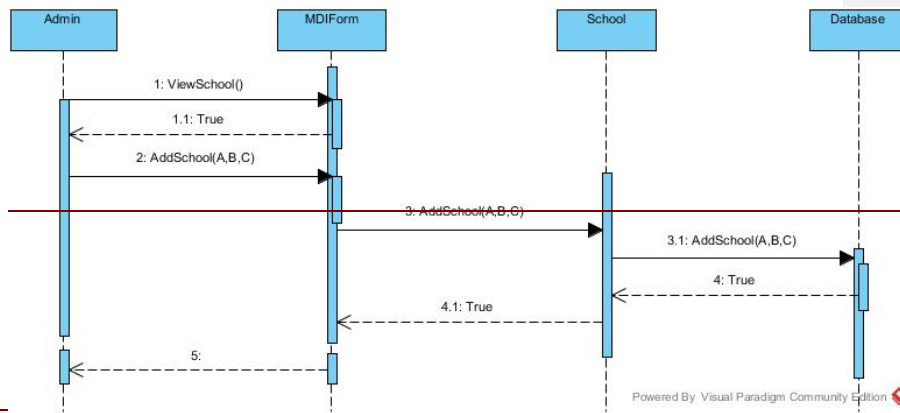
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~~5.168~~ Add School

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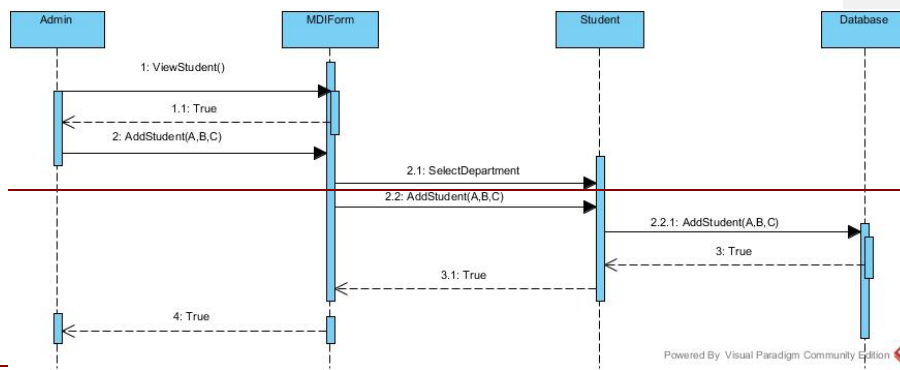
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~~5.173~~ Add Student

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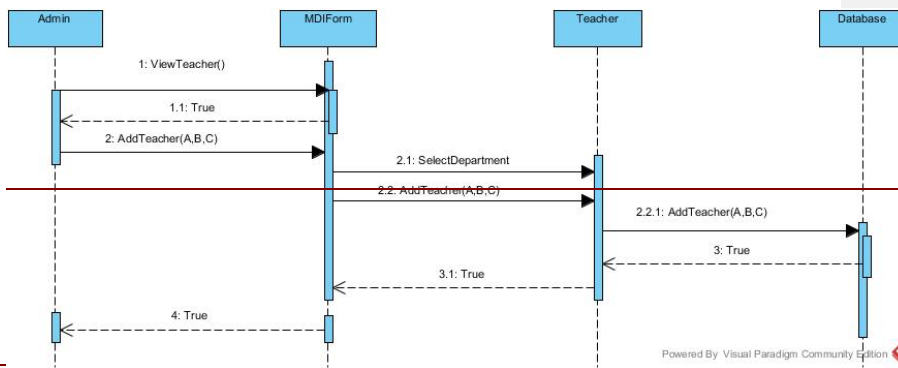
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~~5.184~~ Add Teacher

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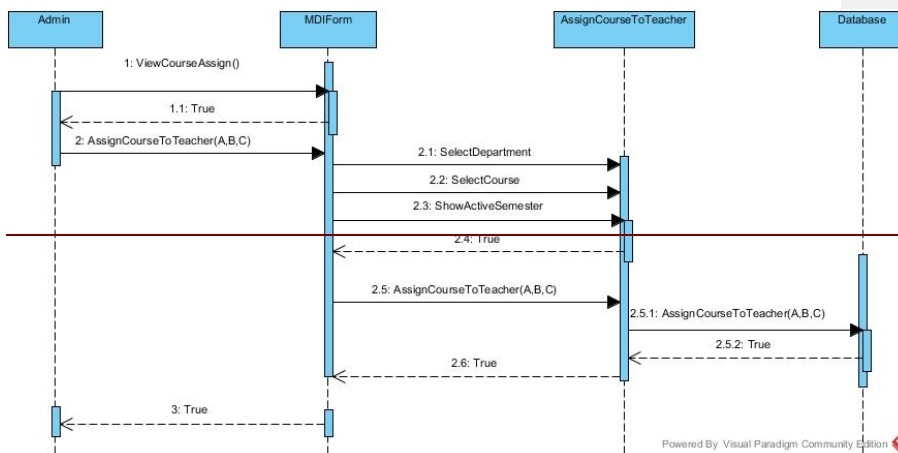
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~~5.189~~ Assign Course to Teachers

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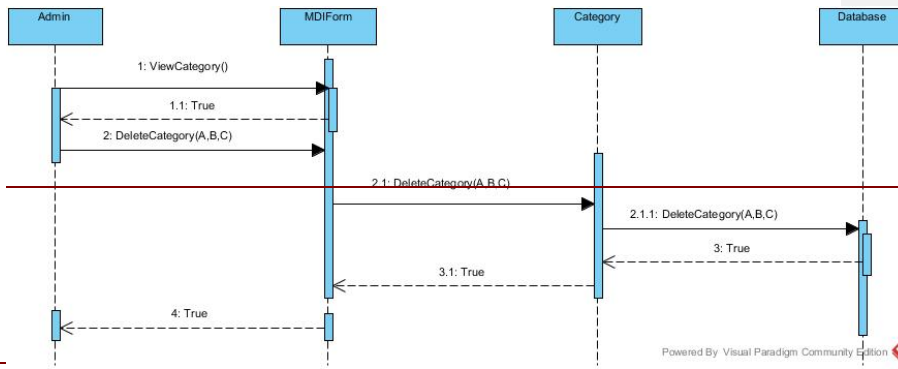
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~~5.197~~ Delete Category

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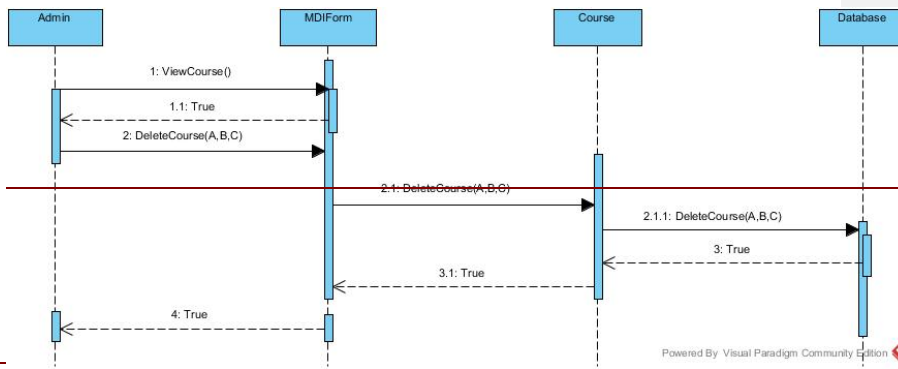
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~~5.203~~ Delete Course

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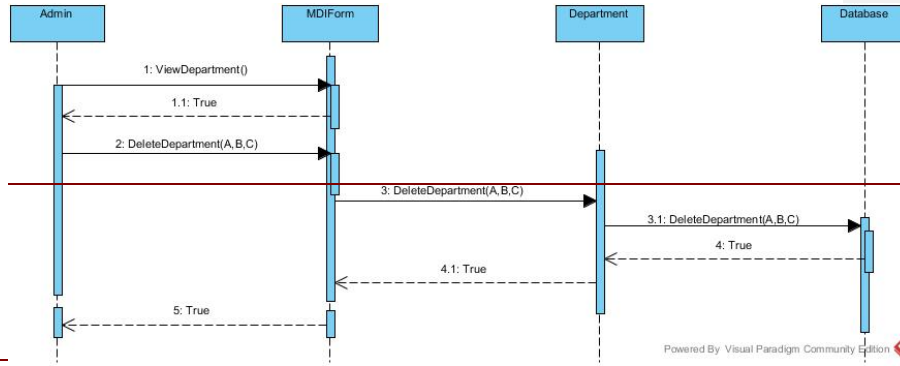
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~~5.215~~ Delete Department

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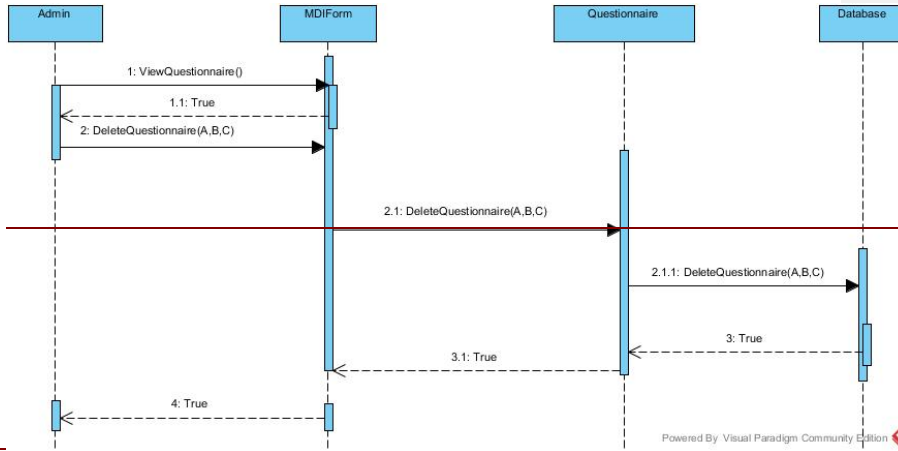
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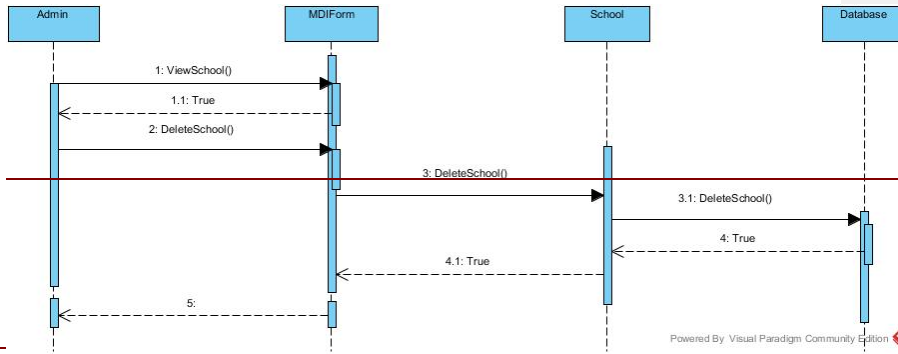
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~~5.233~~ Delete School

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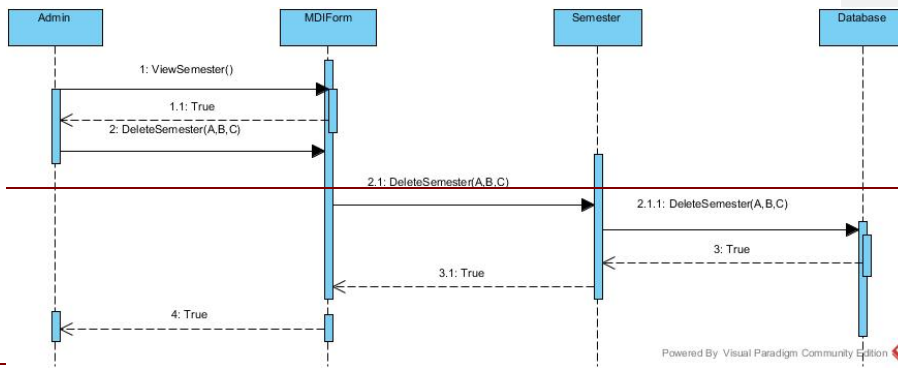
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5.240 Delete Semester

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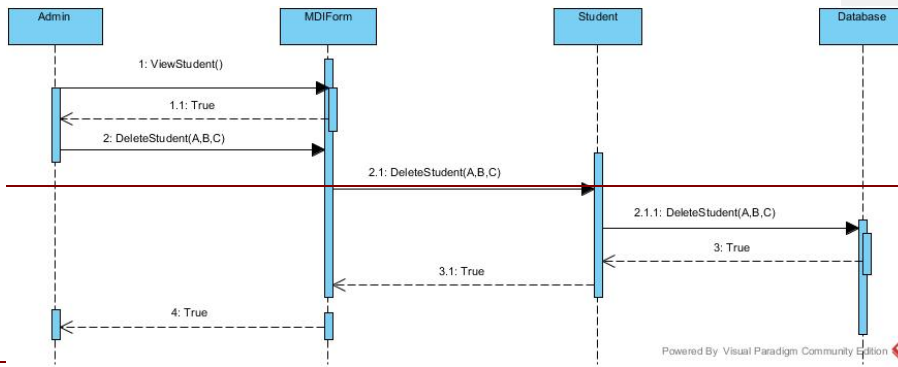
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5.261 Delete Student

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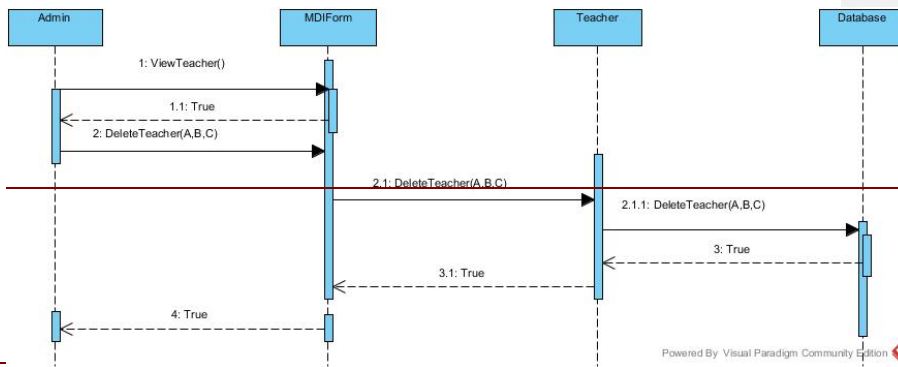
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~~5.267~~ Delete Teacher

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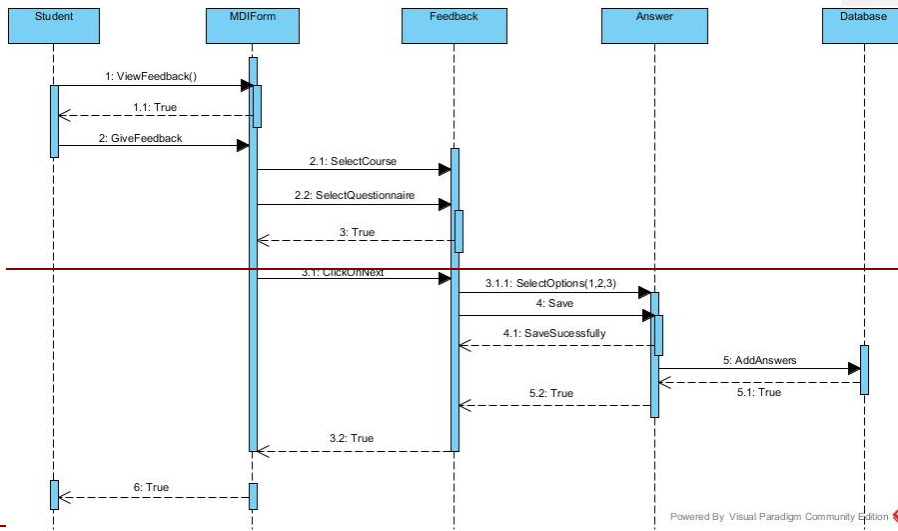
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~~5.288~~ Feedback

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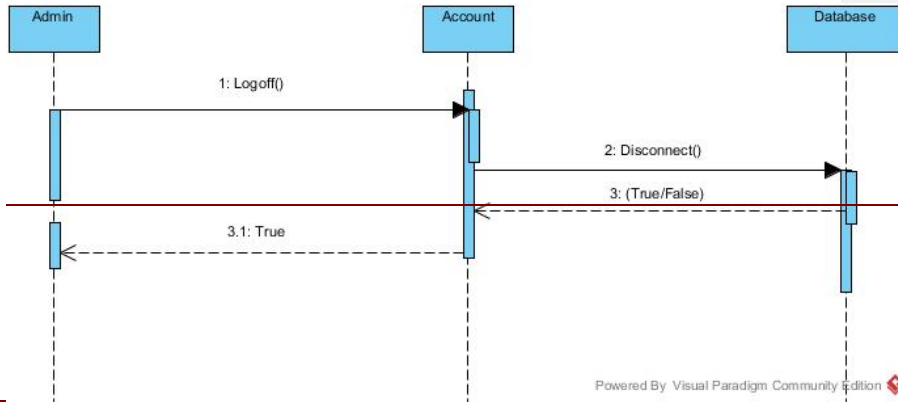
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~~5.293~~ Log off

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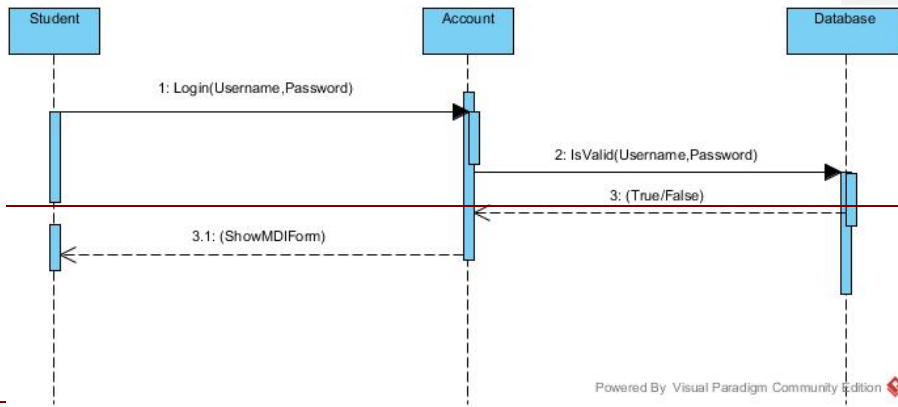
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~~5.300~~ Student Login

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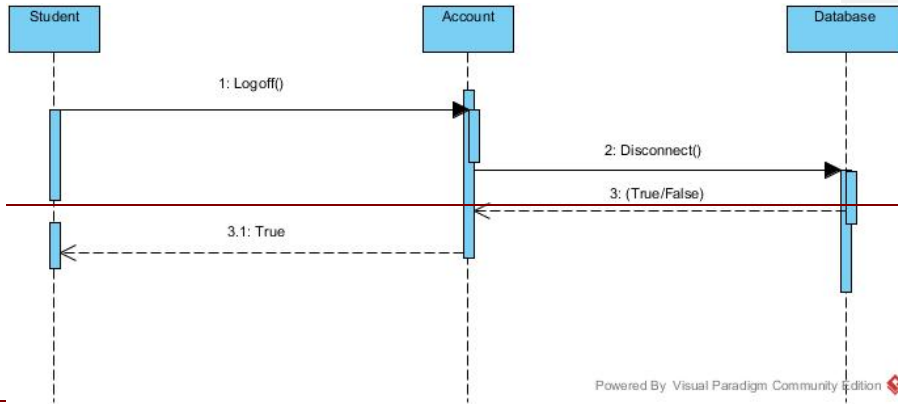
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~~5.306~~ Student Log off

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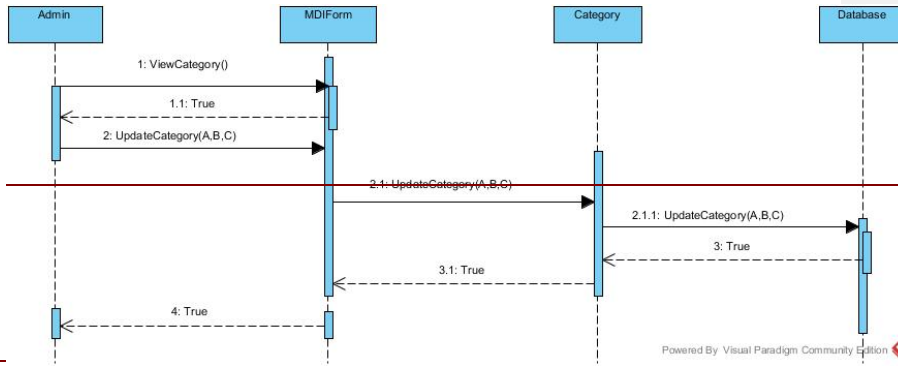
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~~5.315~~ Update Category

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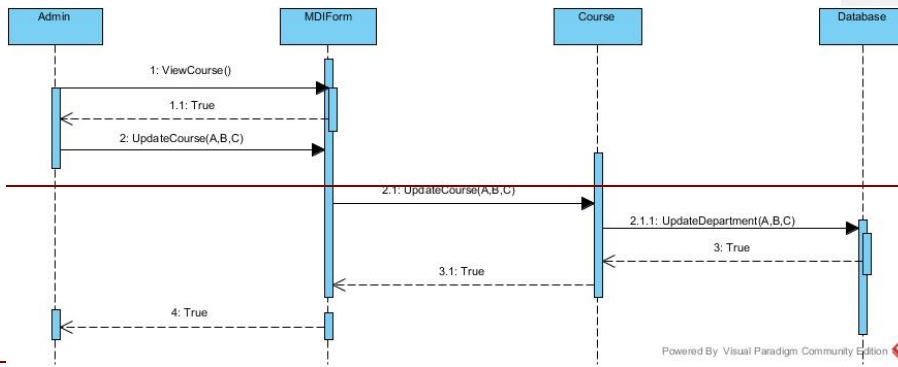
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~~5.320~~ Update Course

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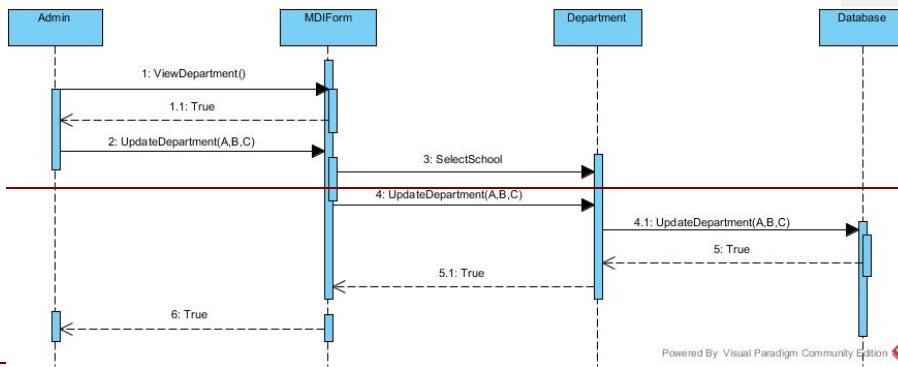
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~~5.332~~ Update Department

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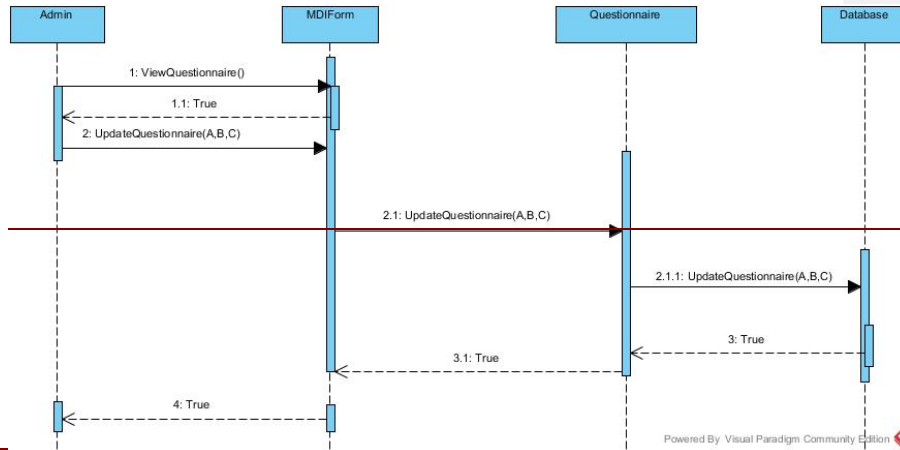
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~~5.338~~ Update Questionnaire

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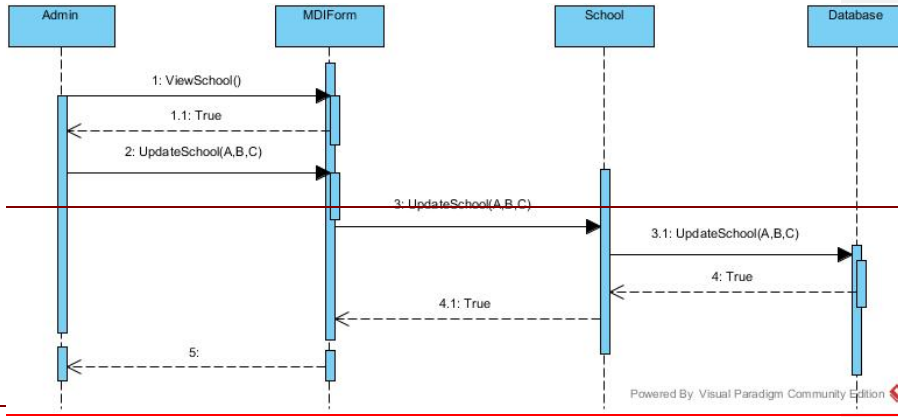
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~~5.347~~ Update School

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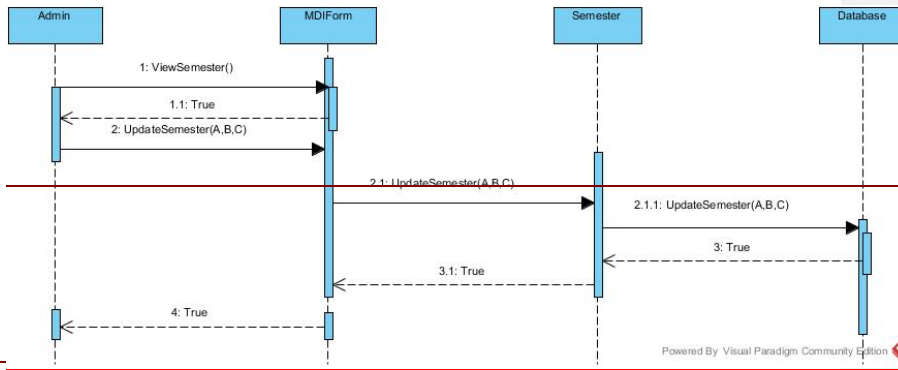
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~~5.353~~ Update Semester

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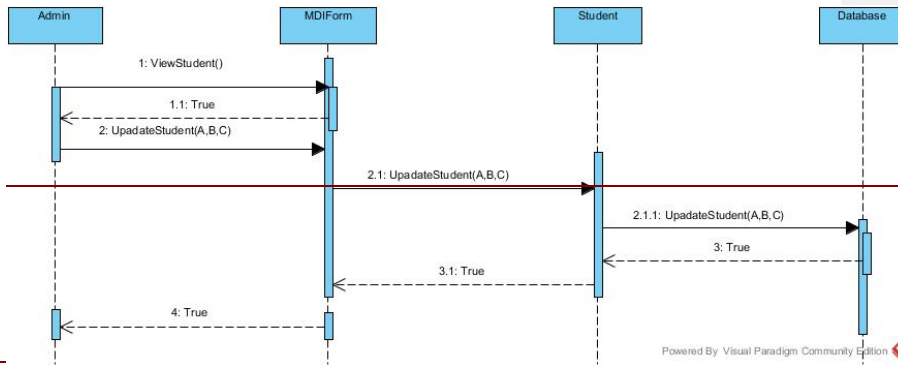
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~~5.364 Update Semester~~

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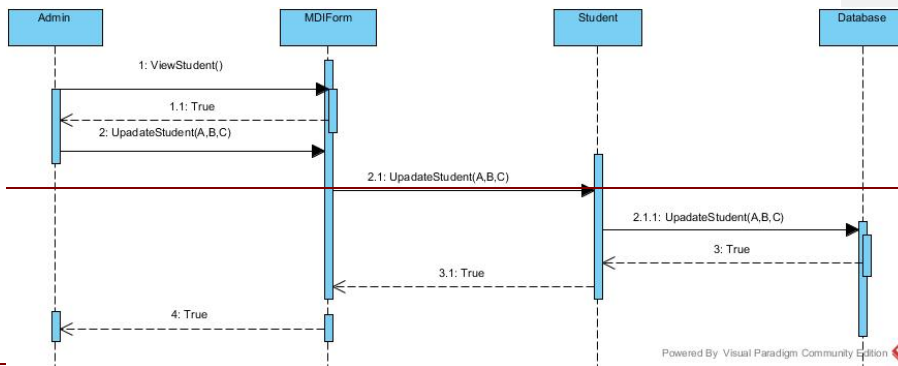
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~~5.371 Update Student~~

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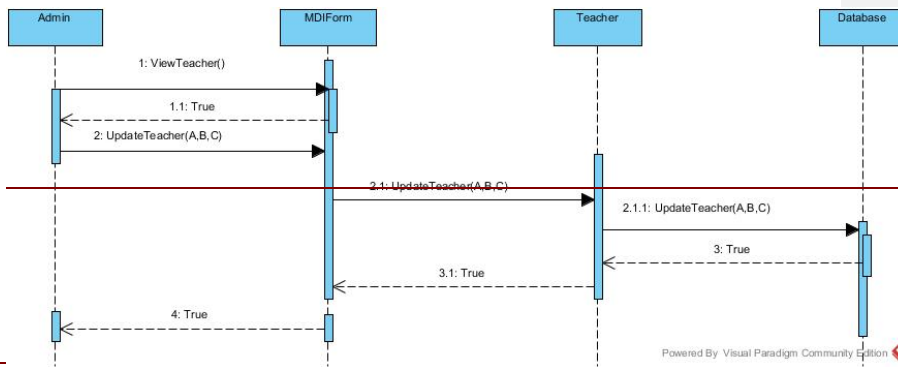
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~~5.381~~ Update Teacher

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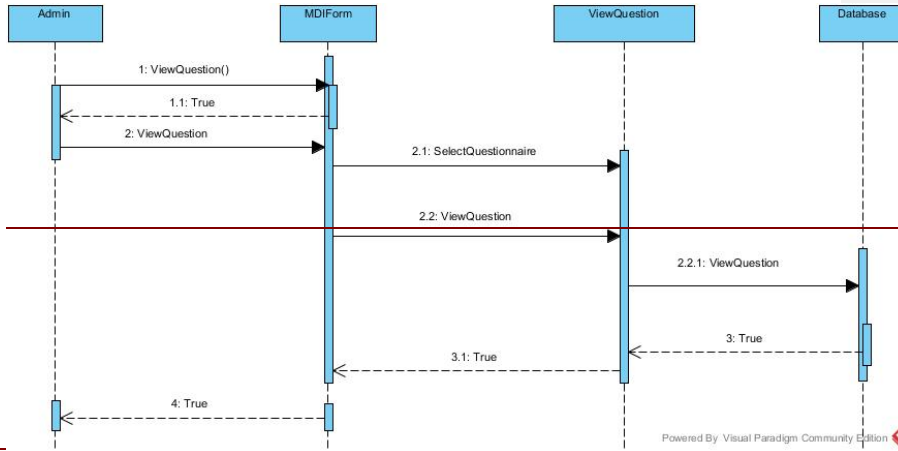
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~~5.389~~ View Question

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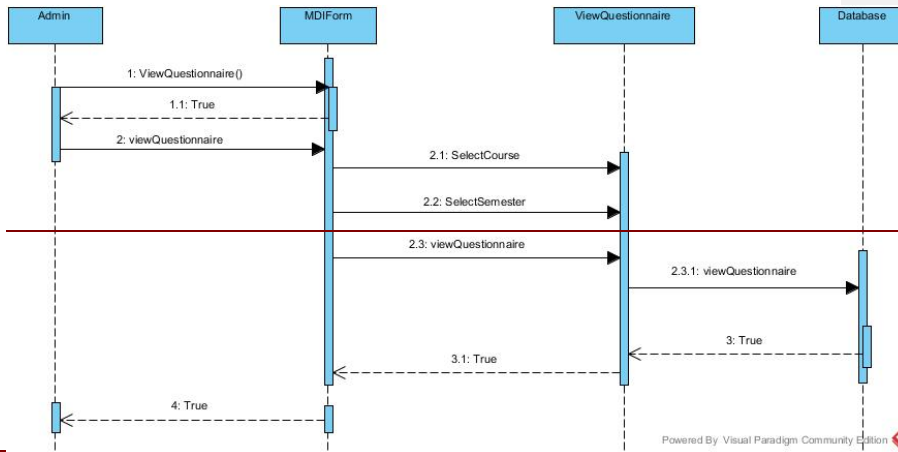
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~~This is an optional section. It may help when the Typical Course Of Events (Section 3.4) is too detailed to clarify the flow properly.~~

~~A system sequence diagram is a picture that shows, for a particular scenario of a use case, the events that external actors generate, their order, and intersystem events. All systems are treated as a black box; the emphasis of the diagram is events that cross the system boundary from actor to systems.~~

~~A system sequence diagram should be completed for the typical course of events of the use case, and possibly others, for the most interesting alternative courses.~~

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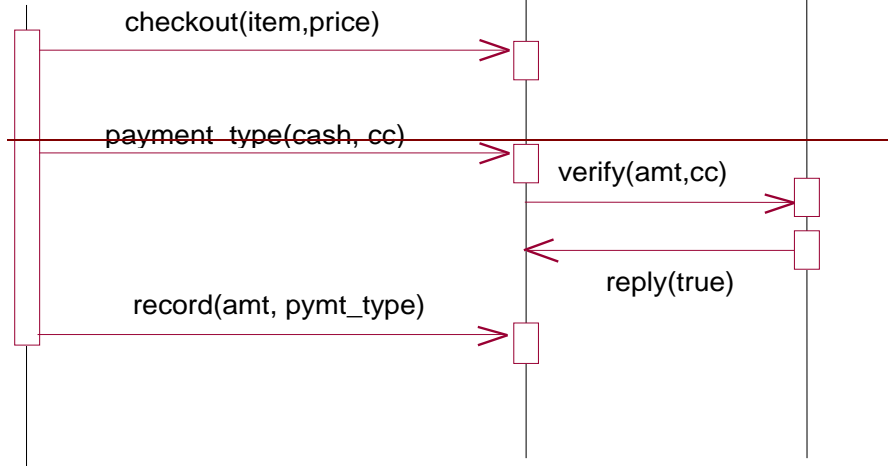
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: System Administrator

:System

:Verification System



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System Collaboration Diagrams

~~5.438 User Interface~~

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~~5.440 Login~~

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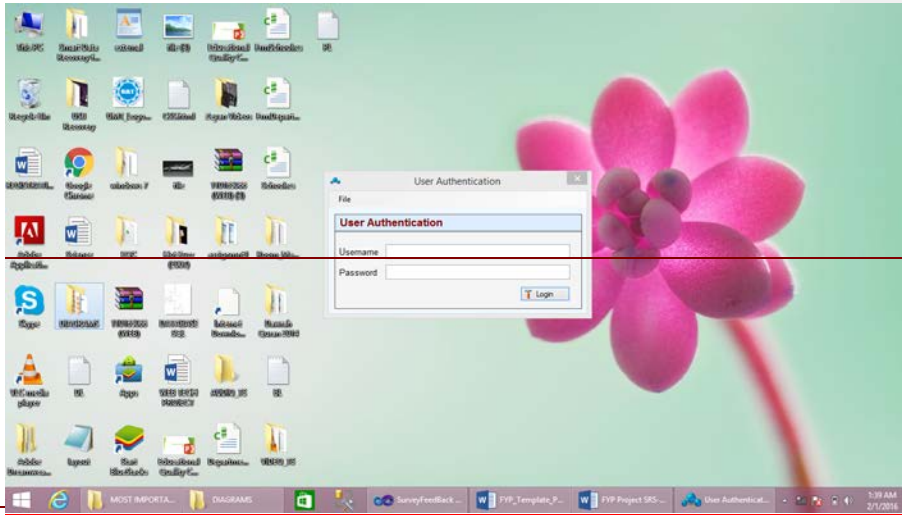
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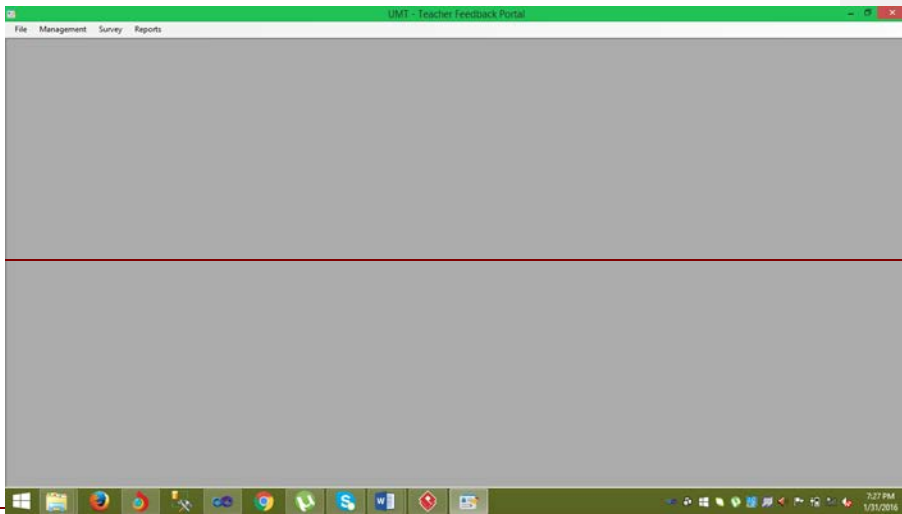
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~~5.444~~ Main MDI form



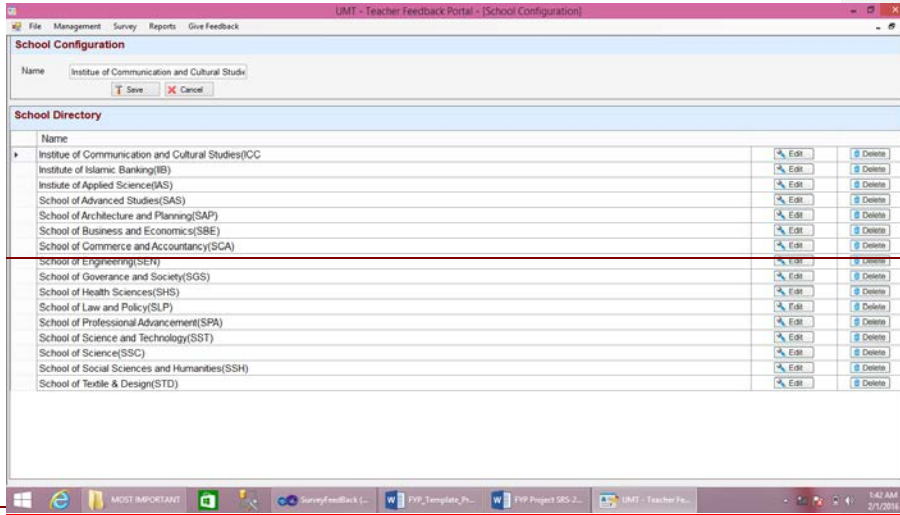
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~~5.446~~ Note: Background sliding images will be added before demo!

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~~5.448~~ School

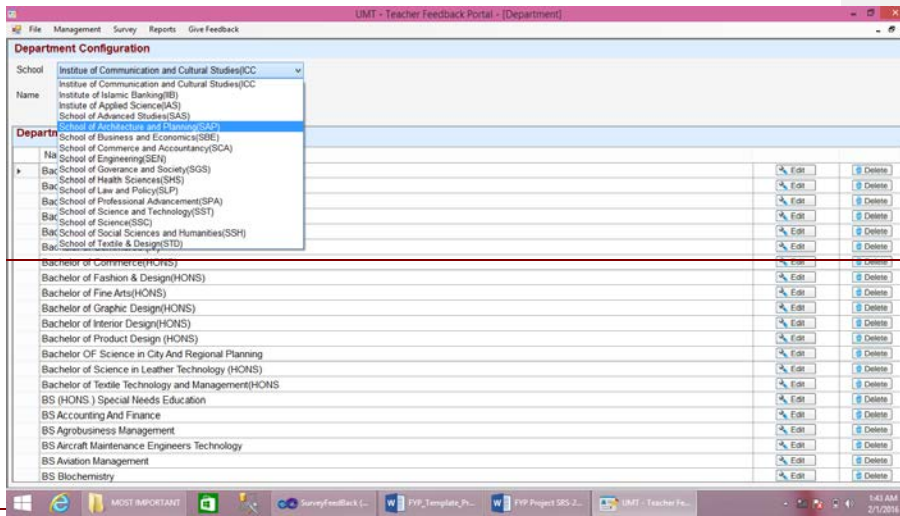
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~~5.451~~ Department



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~~5.455~~ Semester

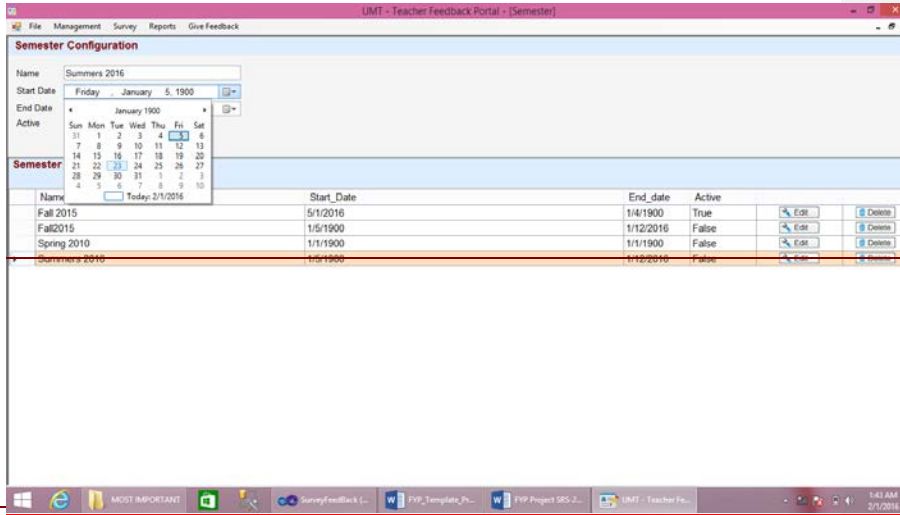
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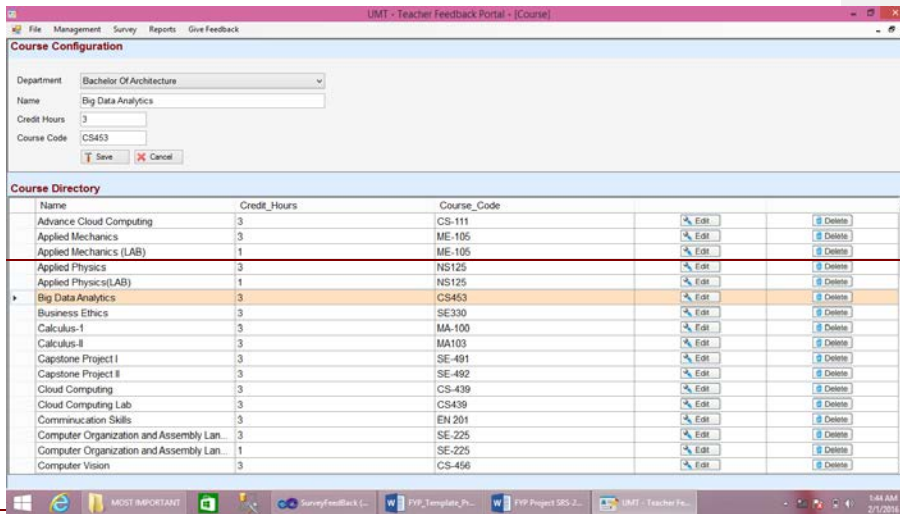


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~~5.458~~ Course

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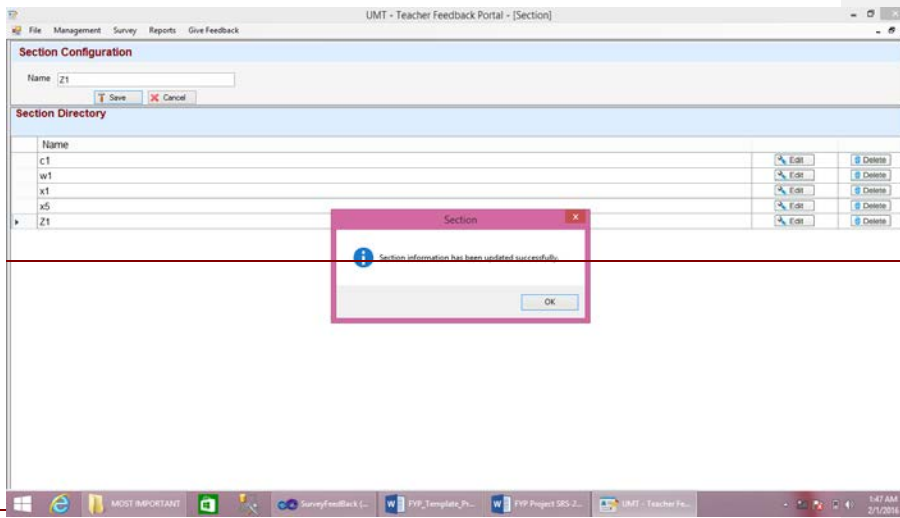
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~~5.466~~ Section

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~~5.471~~ Teacher

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~~5.474~~ Manage

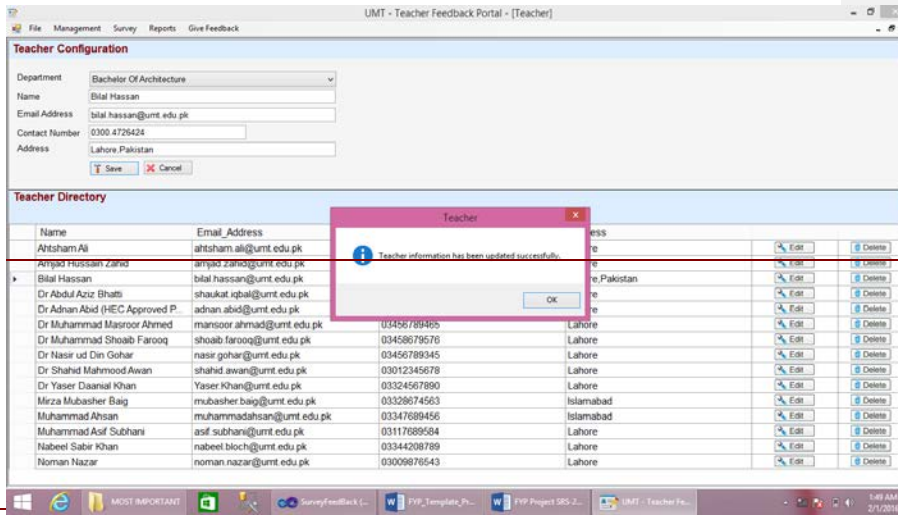
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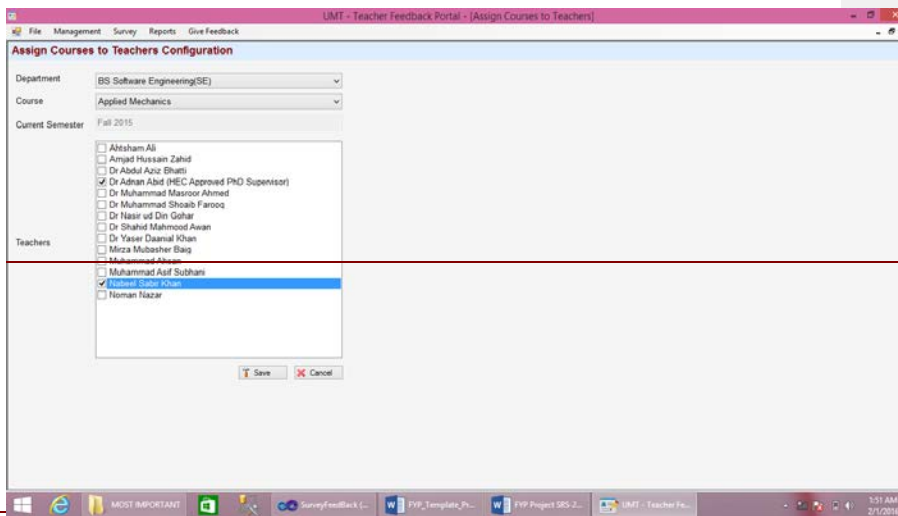


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~~5.477~~ Course Association

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~~5.481~~ Student

~~5.482~~ Manage

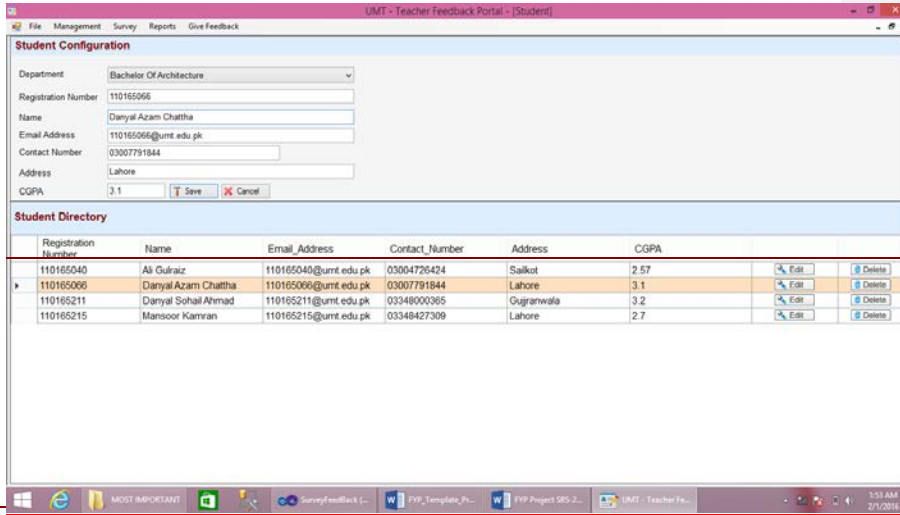
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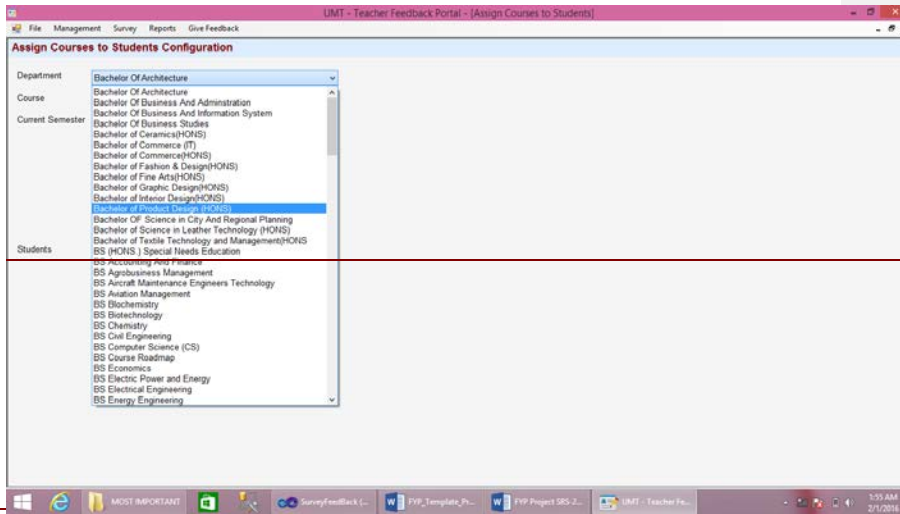
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~~5.486~~ Course Association

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~~5.490~~ Category

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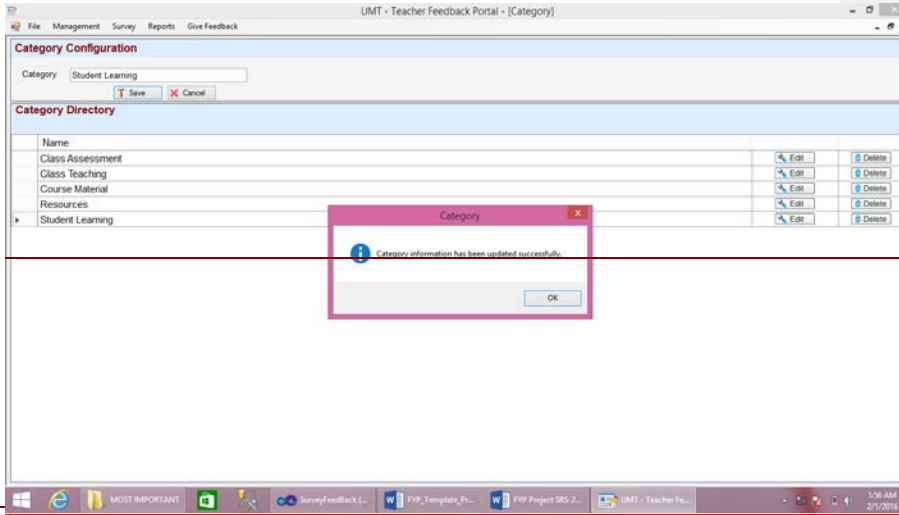
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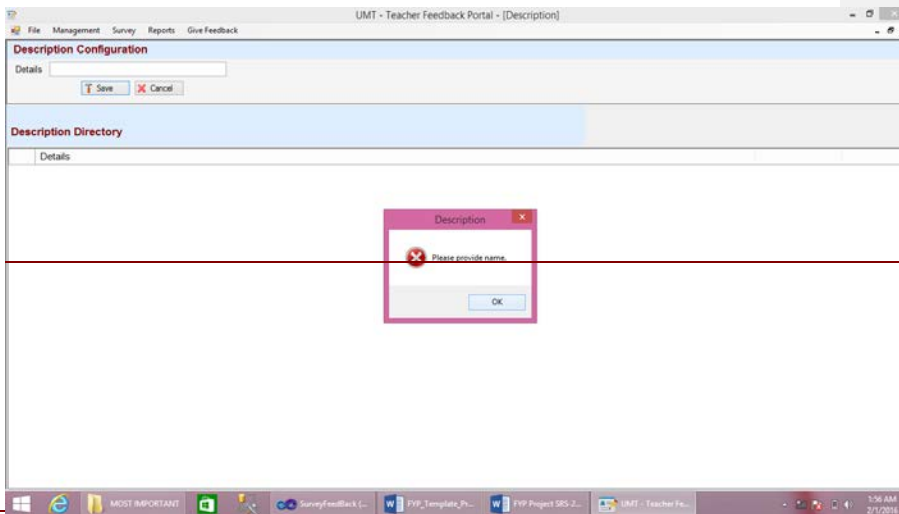
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~~5.496~~ Description



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~~5.500~~ Designation

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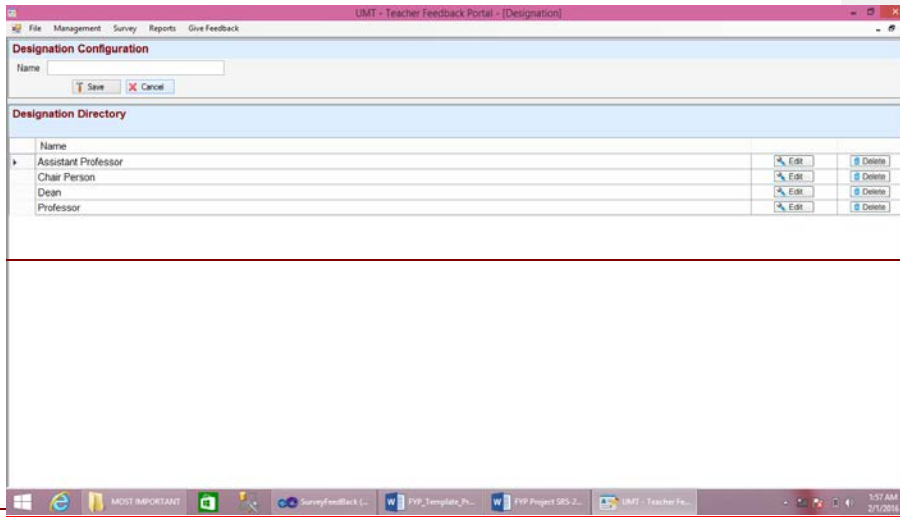
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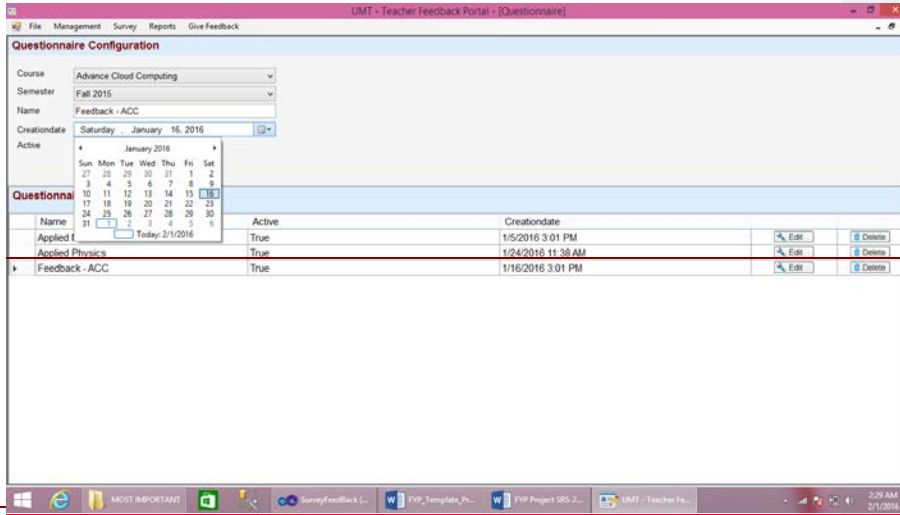
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~~5.507~~ Manage Questionnaire

~~5.508~~ Add

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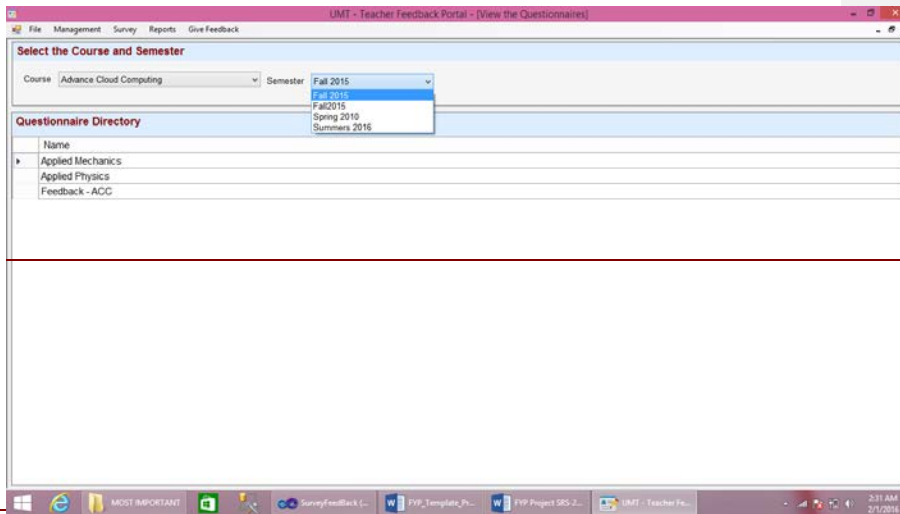


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~~5.512~~ View

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~~5.516~~ Manage Questions

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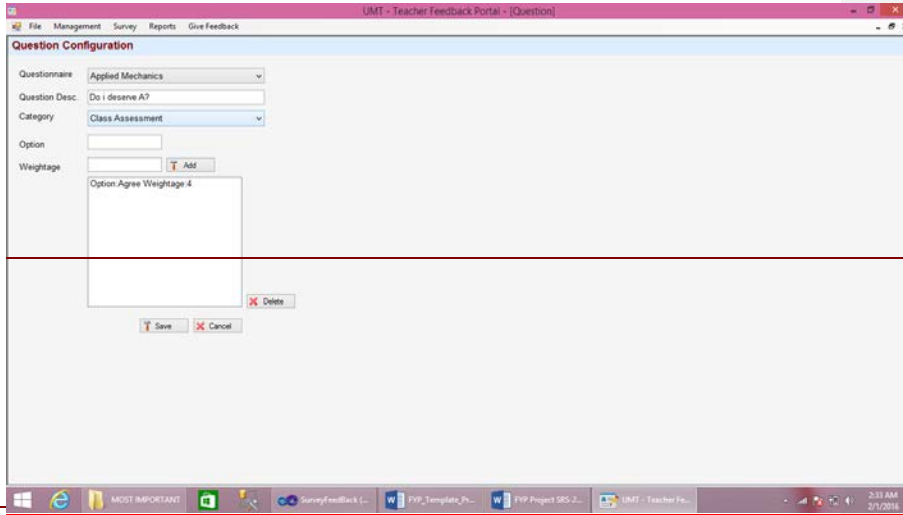
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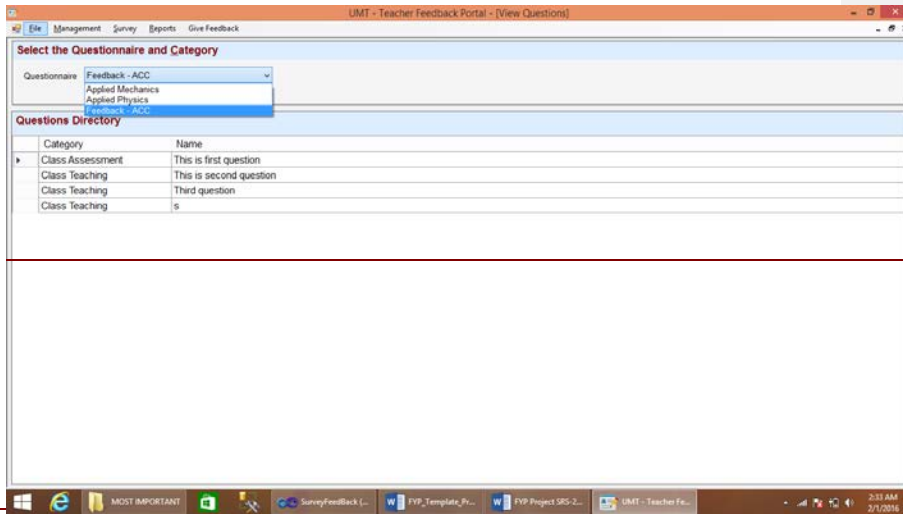
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~~5.526~~ STUDENT MDI

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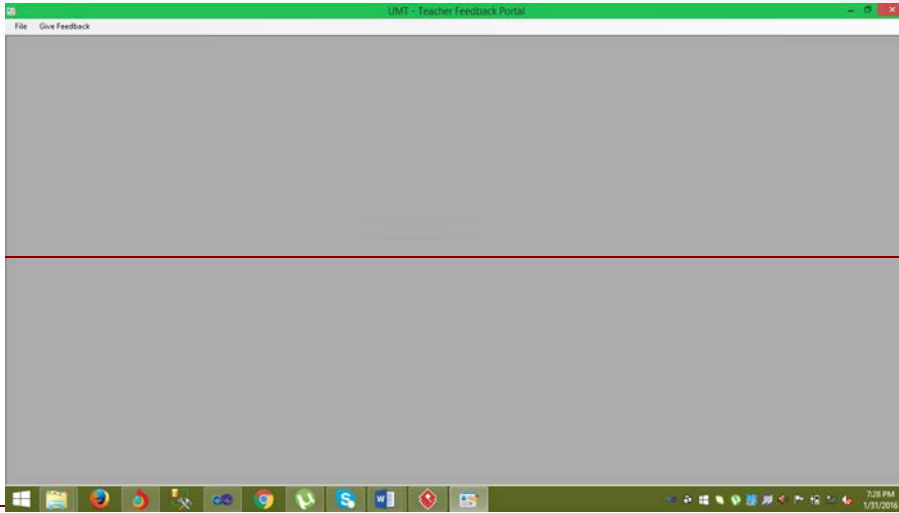
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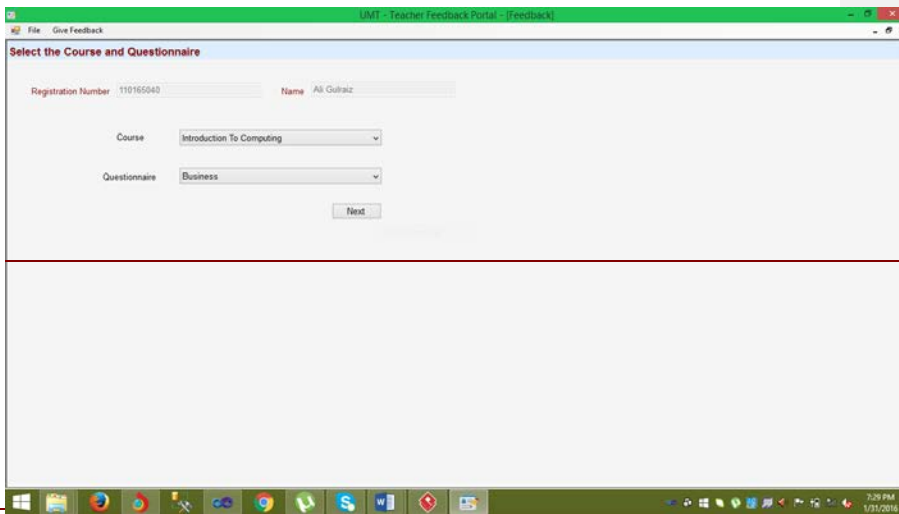


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~~5.531~~ Feedback



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~~5.536~~ Feedback form

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Registration :110165215 Name :Mansoor Kamran
Course Title :Applied Mechanics (LAB) Questionnaire : Test3

Student Learning

Teacher made the sessions interesting and informative to explain the concepts. 1 2 3 4 5

My comprehension has improved and will help me in my career plan 1 2 3 4 5

My oral written communication ability have improved. 1 2 3 4 5

My Thinking skills (analytical critical) and mindset have improved. 1 2 3 4 5

Save

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Registration :110165215 Name :Mansoor Kamran
Course Title :Applied Mechanics (LAB) Questionnaire : Test3

Student Learning

Teacher made the sessions interesting and informative to explain the concepts. 1 2 3 4 5

My comprehension has improved and will help me in my career plan 1 2 3 4 5

My oral written communication ability have improved. 1 2 3 4 5

My Thinking skills (analytical critical) and mindset have improved. 1 2 3 4 5

Save

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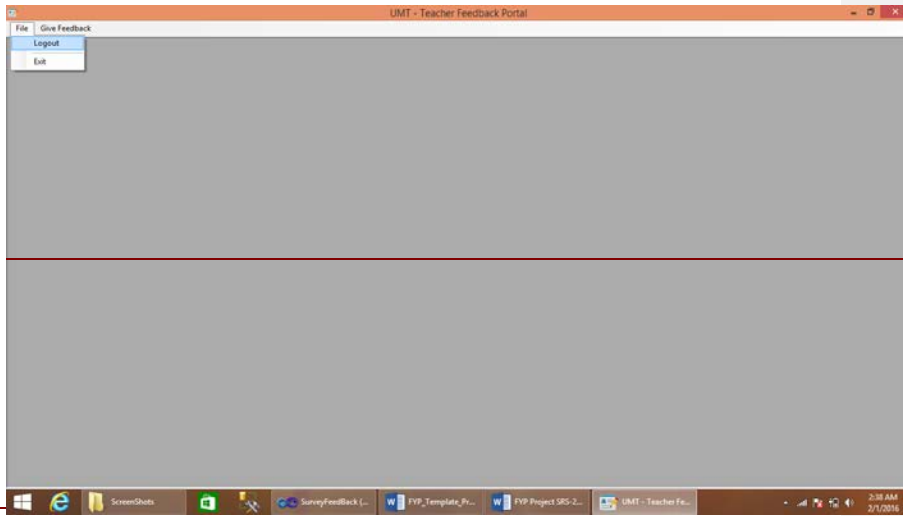
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~~5.547 Logout & Exit~~

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~~This section may be used to provide screenshots of the application to give an idea of how the GUI will appear.~~

~~5.571 Data Dictionary~~

~~This section may be used to provide the details of interface elements that are present on the screenshots.~~

Element Name	Type	Validation	Mandatory	Remarks

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~~6. Conceptual Model Component diagram~~

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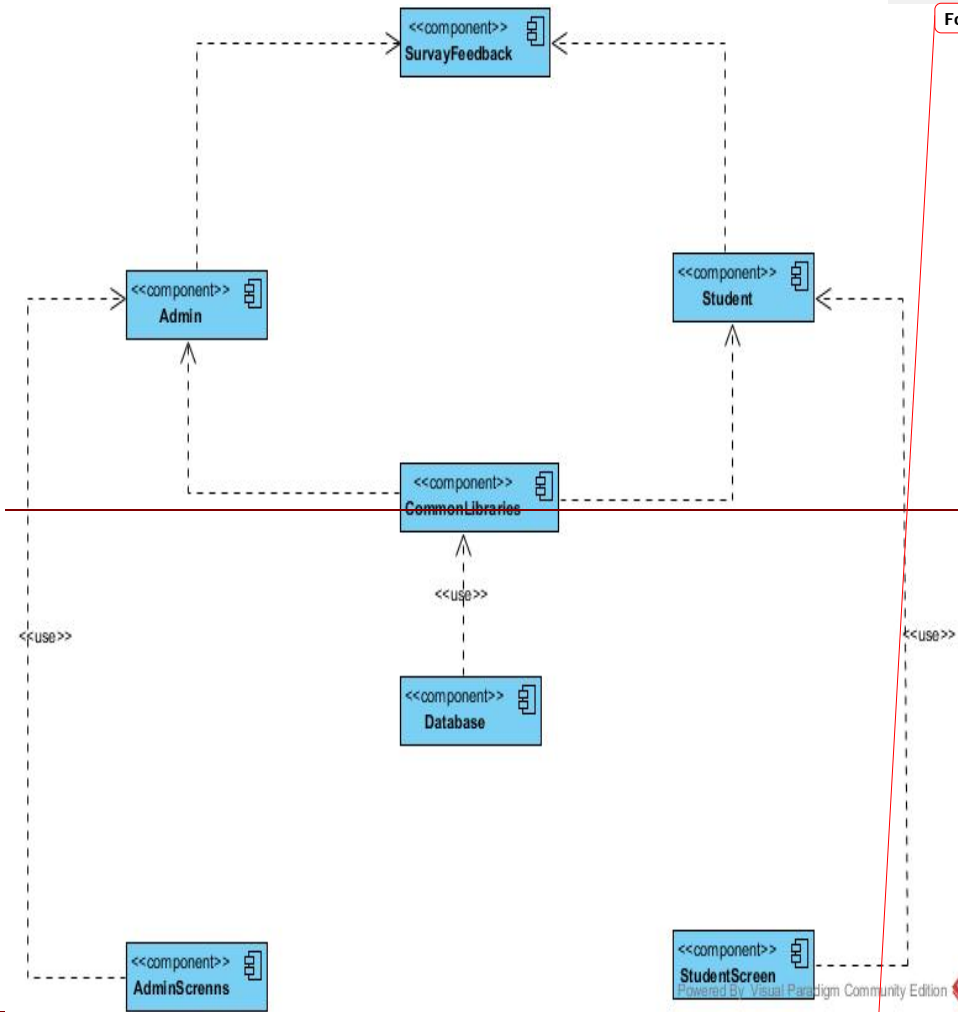
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8.-

Draw your conceptual model after writing all your use cases. This is an optional section, which will be applicable when there are a large number of entities.

A Conceptual model is a representation of concepts in a problem domain. It is illustrated with a set of static structure diagrams. It can represent the following:

- Concepts
- Associations between concepts
- Attributes of concepts

A new example consistent with the Accounting System example used in this document should be provided.

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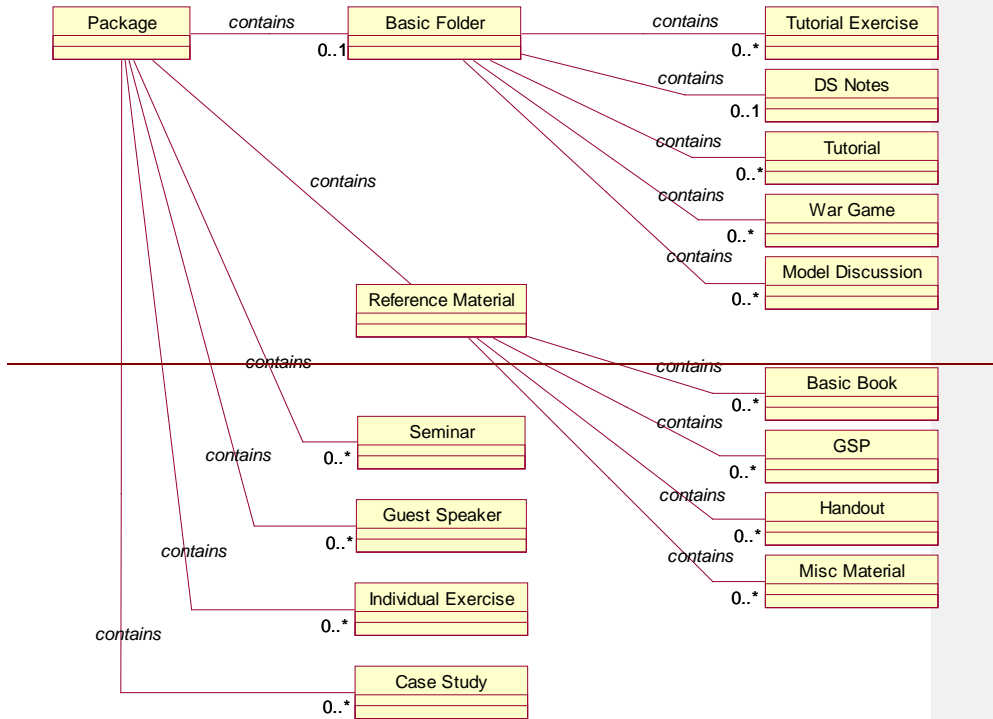


Figure 3 Conceptual Model

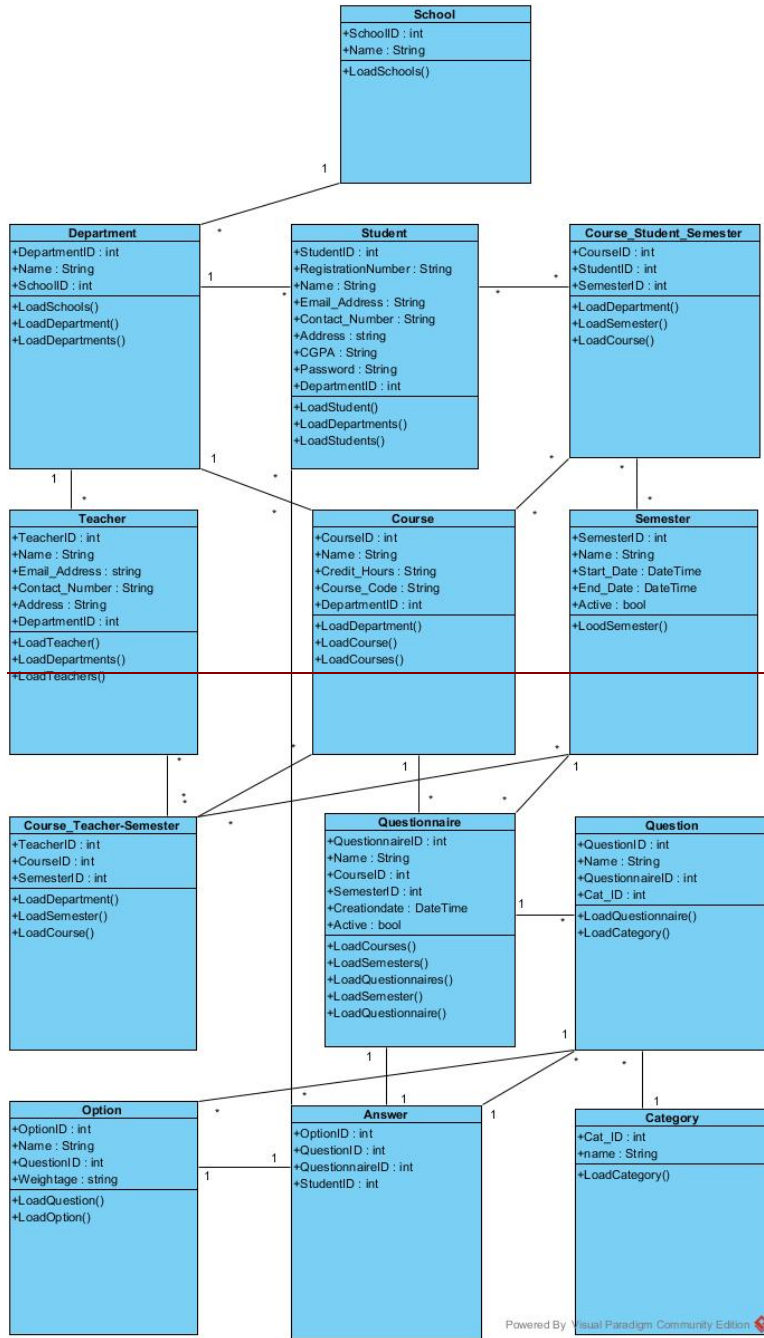
concept reacts differently to events depending on their state, it is considered as state dependent concept or type. Create state diagrams only for state dependent concepts with complex behavior.

A relevant example needs to be inserted here.

CLASS DIAGRAM

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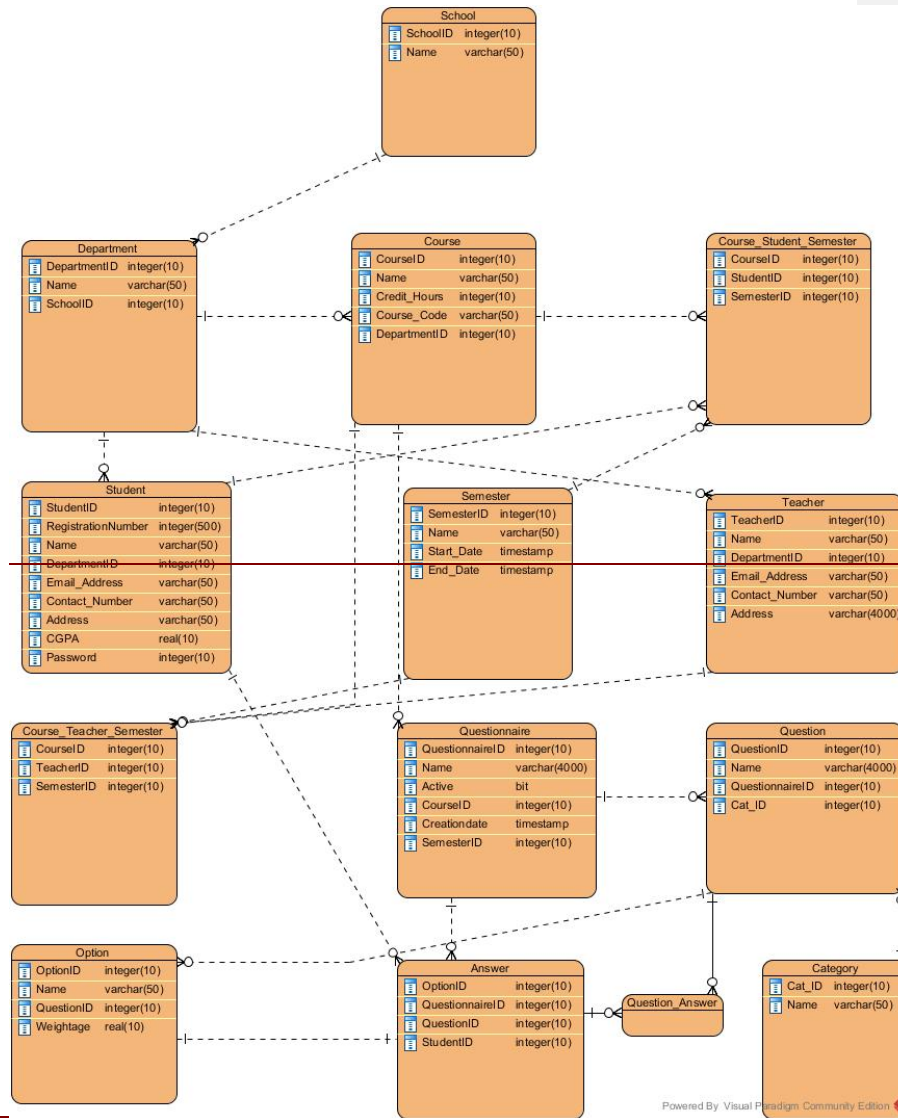


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Entity relation diagram



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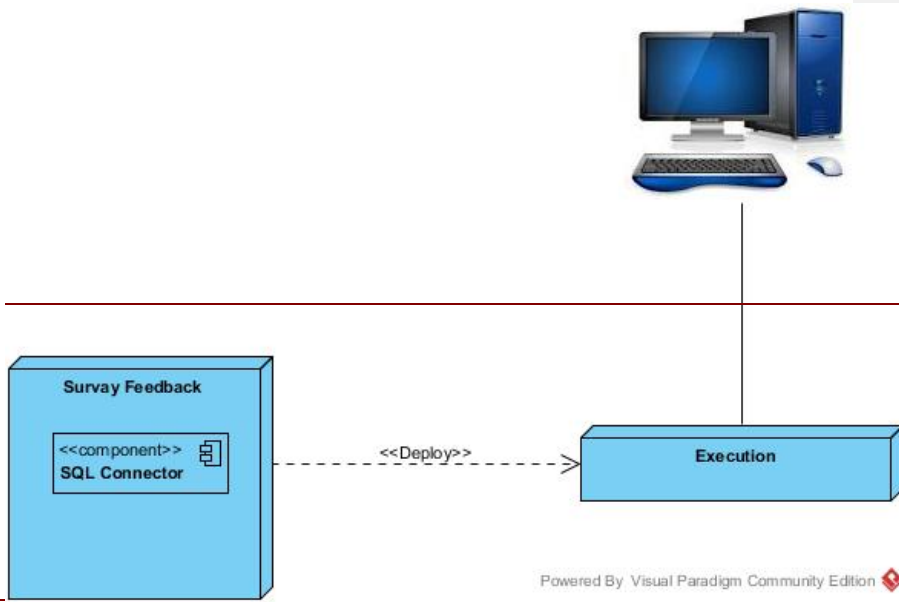
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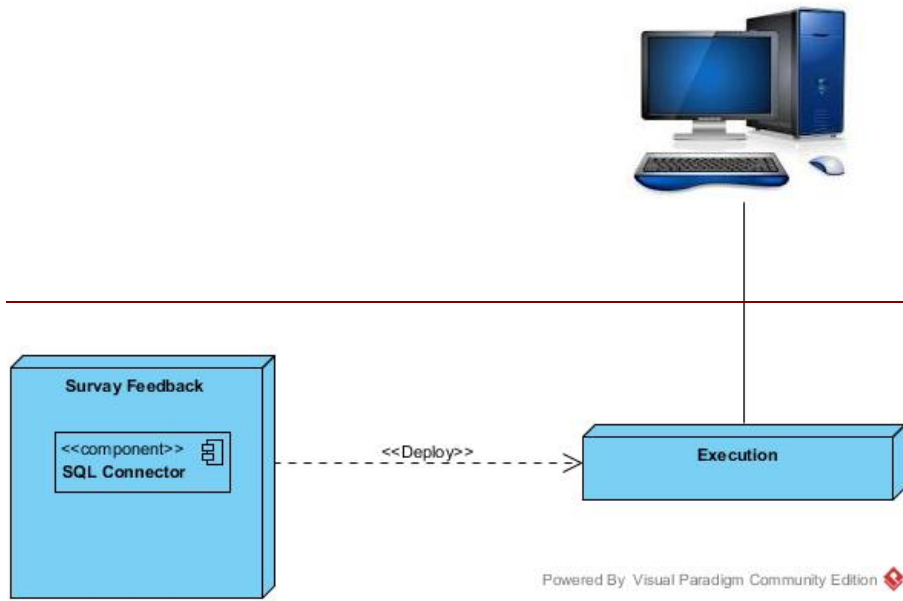
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Deployment diagram



Deployment diagram

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9.

10. Function Point Analysis

11. Implementation

11.1 Prototypes (UID vs PID)

11.2 Descriptions (PID vs DID)

11.3 Traceability matrix (UID vs PID)

12. Testing

12.1 Test Cases

12.2 TID template

12.3 Decision Table

12.4 Traceability Matrix (TID vs UID)

13. Results/Output/Statistics

13.1 %completion

13.2 %accuracy

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~~13.3 %correctness~~

~~Conclusion~~

~~This product is fully functional. It can be implemented in university and it is dynamic enough to be implemented in any university. We have written extra tables in the database which can start working whenever called. All other code is currently working up to the mark.~~

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~~This product will save the time of the students. Students will be able to freely give the feedback against every course they would be studying. It will put the job of quality assurance department to a real ease. The processing of results is really fast. Feedback given against any teacher will be calculated within fraction of second. It will save the costs of the university.~~

~~14. Students need to get familiar to this system before giving feedback. It will ease the job of administration. Otherwise it has a user friendly interface which a university student can understand easily. Student simply needs to enter his username and password, he will click on "give feedback" then he will attempt the given questionnaires against each subject.~~

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~~Future work~~

~~We intend to go online with this product of ours. It is currently a desktop application and limited to the desktop functional areas. In near future we will extend our work and it will reshape as an online web application.~~

~~Students will be able to give feedback from anywhere in the world. It will be a web application. We will use ASP.NET in our front end though we intend to use the same database for web application too. Before developing our desktop application we had this thing in our mind that we will go for web application real soon. So, while keeping this in view, we constructed a database which is feasible for both web and desktop applications.~~

~~15. In future, we will simply change the presentation and business layer of our project. The data layer will remain the same. Concept will be the same as this desktop application. Only difference will be the major amount of ease for the users. It will be the cause of ease for users when it will be shifted from desktop platform to web platform.~~

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~~16. Bibliography~~

~~17. Appendix~~

~~Code:~~

~~17.1 Glossary of terms~~

~~17.2 Environmental setup~~

~~17.3 Experimental setup~~

~~17.4 Assumptions~~

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~~17.5 Pre-requisites~~

~~17.6 Data sets/test data~~

~~8.~~

~~To do~~

~~1) Add functional requirement and non functional requirement under heading 2~~

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