

**Final Project Report**  
**School Management System**



**Project Supervisor**

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**Submitted By**

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# ACKNOWLEDGEMENT

I am grateful to almighty ALLAH, the most Gracious, Merciful and Beneficent WHO helps me in every field of life. By HIS grace I have been able to complete this project successfully. And countless Darood-u-Salam to Hazarat Muhammad Mustafa (PBUH) because of Him, ALLAH blessed me to achieve all that.

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I feel proud to be son of my parents, whose consideration boosts my moral to get higher education. Special thanks to my father Riaz Ahmed and my mother for remembering me all the time in their prayers, I cannot pay back for their kindness and humbles. In fact their prayers enable me to reach this stage and complete this project. I heartily express my thanks to my loving brothers and sisters for their love and care. I am much thankful to my friends for their co-operation and help particularly Muhammad Afzal.

My appreciations also go to all the people who participated by sharing their precious views and suggestions about the **School Management System**. Thanks a lot for all the time and effort they have given me, without their co-operation, I would not be able to do such stupendous work.

*Waqas Ahmed*

# PREFACE

This documentation is about the School Management System. The main objective behind all this work was to develop such a system that enhances not only the vision of its developers but also expand their vision about the vast field of system analysis and software development.

During this document preparation I am guided by my kind, respected, and experienced teacher Mr. Khurram Khan, who helped me a lot to refine my project and its concern document. He with his knowledge and experience told me the art of designing the system.

During this process I studied the present system and got information about this system by studying the existing documents, reports they prepared. On the basis of this information I tried my level best to fulfill the needs by designing the system. Various types of input screen were designed after studying the various types of alternatives present to solve this problem, which were identified in the result of initial investigation and feasibility study.

Finally, system development was done under guidance of my respected teachers.

# PROJECT BRIEF

PROJECT NAME: School Management System (SMS)

ORGANIZATION: Al-Saeed Educational System, Rahim Yar Khan.

UNDERTAKEN BY: Waqas Ahmed

SUPERVISED BY: Mr. Khurram Khan

DATE OF START: 08-05-2013

DATE OF COMPLETION: 08-09-2013

COMPUTER USED: Sony Vaio Core i3.

SOURCES LAGUAGES: C Sharp .Net

OPERATING SYSTEM: Windows 7

TOOLS USED: Visual Studio.Net, SQL Server 2000, MS PROJECT, Software Engineering, Microsoft Visio.

OTHERS: Adobe Photoshop 7.0, Corel Draw X5, Pacestar UML Diagrammer.

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# **CHAPTER 1**

Information Gathering & Analysis

## **1.1 Introduction**

The school is currently using file system, but this file system is facing problems in handling data which is increasing day-by-day. It takes lengthy development time and causes data redundancy and inconsistency.

The basic purpose of project is to design a solution that is cost effective, efficient, robust and secure. I am designing a Desktop base project named as “School Management System”. This project will fulfill the minimum needs of any School.

This project will help the principal and working staff to keep eye on student management and enrollment, class information management, teacher management, attendance control and reporting at the same time just by one click.

### **Project Title:**

“School Management System”

### **Project Overview Statement**

The goal is to design a solution that is cost effective, efficient, robust and secure. I am providing information about school examination and student information system.

### **Objectives:**

- 1- Fast access to school data.
- 2- High performance data management.
- 3- To provide proper management of school system

### **Project Success criteria:**

If the project meets the above mentioned objectives. It means it is successful.

### **Assumptions, Risks and Obstacles:**

If we are not able to fulfill these objectives.

### **Type of project:**

Development

### **Target End users:**

School management and staff.

### **Development Technology:**

Object Oriented.

## **1.2 High-level system component:**

Below are the high level systems components on which we will concentrated.

### **Student Profile:**

Educators can effortlessly view all accessible Student Records including parental information, contacts, and more!

**Teacher Information:**

In this section the information regarding teachers are being handled by their Id number, their names, their joining date [date on which they are hired], their phone no. through which they keep in touch with the school, teacher salary.

**Attendance Chart:**

A single click makes a student absent or present. It generates reports of every student's attendance reviewable at any time.

**Fees Collection:**

Records about fee collection are handled.

**Result Information:**

In this section the information regarding Student result are being handled. Position, performance remarks about student are discuss in Result Information

**Examination Records:**

Record of every examination conducted for each standard is maintained which makes referring past data very easy.

### **1.3 Existing System Business Organization:**

“The School” deals in following areas:

- Accounts
- Examination
- Administration of school

Following departments facilitates above mentioned business services:

**Accounts office:**

Admission office of the School responsible of accounts procedure of students. Traditionally manually processes of accounts are followed here.

**Examination office:**

Teachers submit the question papers in hand written form to this office and examination office has to print the question paper and it is responsible for delivering the question papers and answer sheets to the students during examination.

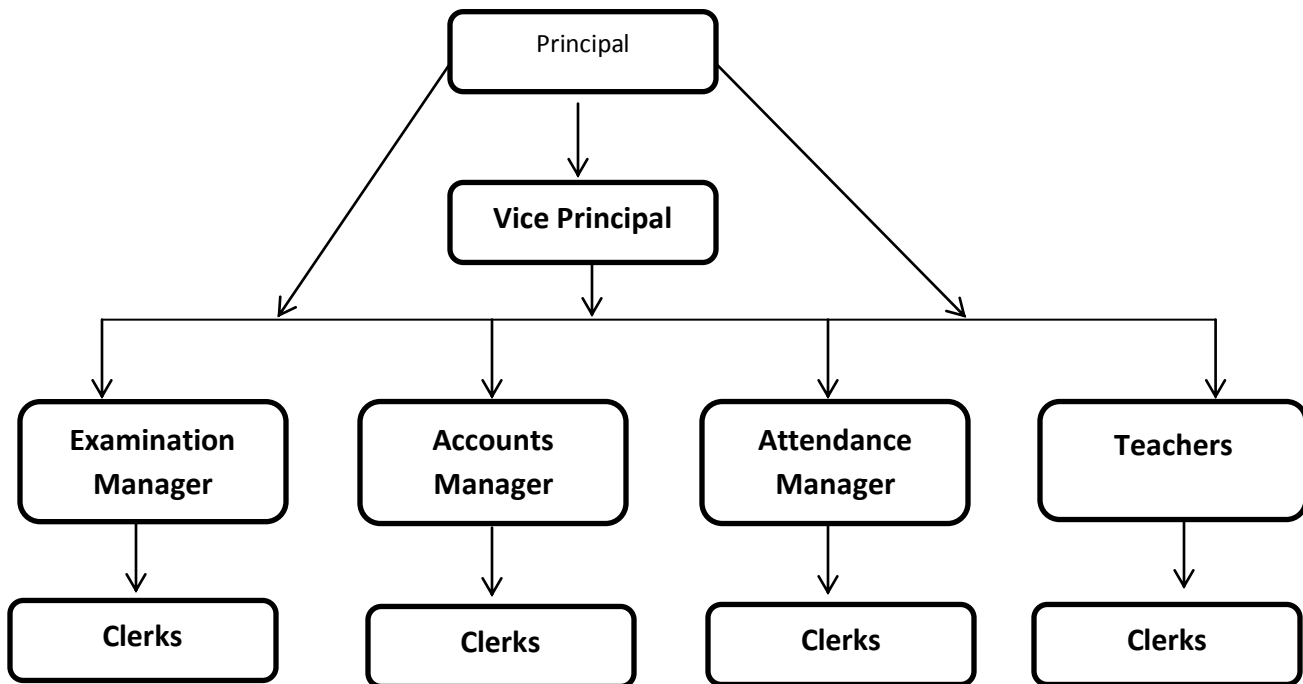
The result of students is prepared by the class teachers. This result includes term result and final result as well. Teachers submit the prepared result to examination office and from where parents have to get it.

### School Admin office:

Admin office deals with all administration and management of school. All news and circulars are issued from admin office. Admin office performs following activities.

- Scheduling of Time table
- Keeping the attendance record
- Academic plan for a year
- Vacation plan

### 1.4 Business Organization Chart:



## 1.5 Requirement Shell/Traceability Table

Requirement Shell		
<b>Requirement #:1</b>	<b>Requirement Type:</b> Admitting Student	<b>Use Case # 1</b>
<b>Description:</b>	Information of the student getting admission.	
<b>Source:</b>	User	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Complete information of the Student which is trying to get admission.	

Requirement Shell		
<b>Requirement #:2</b>	<b>Requirement Type:</b> Result Check	<b>Use Case # 2</b>
<b>Description:</b>	Entering Roll No. for result.	
<b>Source:</b>	User	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Roll No. of the Student which is trying to Check the result.	

Requirement Shell		
<b>Requirement #:</b> 3	<b>Requirement Type:</b> Login User	<b>Use Case #</b> 3
<b>Description:</b>	Enter the User Id & Password	
<b>Source:</b>	User	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	User Id ,Password and User Level who is trying to Login.	
Requirement Shell		
<b>Requirement #:</b> 4	<b>Requirement Type:</b> Add User	<b>Use Case #</b> 4
<b>Description:</b>	Enter the User Name, Password & User Level	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	User Name, Password and User Level.	

Requirement Shell		
<b>Requirement #:</b> 5	<b>Requirement Type:</b> Edit User	<b>Use Case #</b> 5
<b>Description:</b>	Enter the User Name & Password	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	User Name, Password and User Level.	

Requirement Shell		
<b>Requirement #:6</b>	<b>Requirement Type:</b> Edit/update Faculty and Staff	<b>Use Case # 6</b>
<b>Description:</b>	Enter the Details of Faculty and Staff e.g. Name, NIC, Qualification etc.	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Faculty e.g. Name, NIC, Qualification etc.	

Requirement Shell		
<b>Requirement #:7</b>	<b>Requirement Type:</b> Add Faculty and Staff	<b>Use Case # 7</b>
<b>Description:</b>	Enter the Details of Faculty and Staff e.g. Name, NIC, Qualification etc.	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Faculty e.g. Name, NIC, Qualification etc.	

Requirement Shell		
<b>Requirement #:8</b>	<b>Requirement Type:</b> Edit/Update Student Record	<b>Use Case # 8</b>
<b>Description:</b>	Enter the Details of Student e.g. Name, Bay form, DOB etc.	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Details of Student e.g. Name, Bay form, DOB etc.	

Requirement Shell		
<b>Requirement #:9</b>	<b>Requirement Type:</b> Add Student Record	<b>Use Case # 8</b>
<b>Description:</b>	Enter the Details of Student e.g. Name, Bay form, DOB etc.	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Details of Student e.g. Name, Bay form, DOB etc.	

Requirement Shell		
<b>Requirement #:10</b>	<b>Requirement Type:</b> Add Result	<b>Use Case # 9</b>
<b>Description:</b>	Enter the Details of Marks of Students.	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Details of Marks of Students.	

Requirement Shell		
<b>Requirement #:11</b>	<b>Requirement Type:</b> Edit Result	<b>Use Case # 10</b>
<b>Description:</b>	Enter the Details of Marks of Students.	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Details of Marks of Students.	

Requirement Shell		
<b>Requirement #:12</b>	<b>Requirement Type:</b> Enforce Fee	<b>Use Case # 11</b>
<b>Description:</b>	Enter all Details about fee. Enforce Monthly Fee	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Details of Student e.g. Name , Class , Monthly fee etc.	

Requirement Shell		
<b>Requirement #:13</b>	<b>Requirement Type:</b> Add Expenses	<b>Use Case # 12</b>
<b>Description:</b>	Enter the Expenses and Salary of staff.	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Expense Detail and Detail of Staff for salary.	

Requirement Shell		
<b>Requirement #:14</b>	<b>Requirement Type:</b> Logout	<b>Use Case # 13</b>
<b>Description:</b>	Press the logout button	
<b>Source:</b>	Admin	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Logout button.	

Requirement Shell		
<b>Requirement #:15</b>	<b>Requirement Type:</b> Print Student Card	<b>Use Case # 14</b>
<b>Description:</b>	Information of the student has been admitted for printing.	
<b>Source:</b>	Database	
<b>Satisfaction:</b>	Yes	<b>Dissatisfaction:</b>
<b>Dependencies:</b>	Information Storing System to provide appropriate data.	
<b>Supporting Materials:</b>	Complete information of the Student which is trying to get print the Student Card.	

## 1.6 Use case Scenarios:

### Use Case 1: Student Admission

Actor	Admin
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. Administrator should be authenticated for login.</li><li>3. Open the Add Student Form.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. Enter Student information.</li></ol>
<b>Main Successful scenario</b>	If the Admin enters the correct info and submit it, he will see the successful message.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. Systems ask the user to re-enter the student information.</li></ol>

### Use Case 2: Result

Actor	User
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. User must open the result form.</li><li>3. User must enter the roll#.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. A form is opened</li><li>2. User can view complete Result of student</li></ol>
<b>Main Successful scenario</b>	If the user enters right Roll No he can view the result.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. Systems ask the user to re-enter the student Exam Detail.</li></ol>

### Use Case 3: Add User

Actor	Admin
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. Administrator must be logged in.</li><li>3. Add user form must be opened.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. Enter the information of new User</li><li>2. User has all access of his level.</li></ol>
<b>Main Successful scenario</b>	If the Admin enters the correct info and submit it, he will see the successful message.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. Systems ask the user to re-enter the User Detail.</li></ol>

#### Use Case 4: View User

Actor	Admin
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. Administrator must be logged in.</li><li>3. View user form must be opened.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. Enter the Name of User</li><li>2. He can select and update any user.</li></ol>
<b>Main Successful scenario</b>	If the Admin enters the correct info and submit it, he will see the successful message.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. If the Admin enters the incorrect info and submit it, he will see the error message.</li><li>2. Systems ask the user to re-enter the User Detail.</li></ol>

#### Use Case 5: Edit User

Actor	Admin
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. Administrator must be logged in.</li><li>3. Edit Admin Form must be opened.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. Change the information of admin.</li><li>2. Click Update Button.</li></ol>
<b>Main Successful scenario</b>	If the Admin enters the correct info and submit it, he will see the successful message.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. If the Admin enters the incorrect info and submit it, he will see the error message.</li><li>2. Systems ask the user to re-enter the User Detail.</li></ol>

#### Use Case 6: Add Faculty/Staff

Actor	Admin
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. Administrator should be authenticated for login.</li><li>3. Administrator must log onto the System.</li><li>4. Database of teacher profiles should exist.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. Enter the information of new faculty.</li></ol>
<b>Main Successful scenario</b>	If the Admin enters the correct info and submit it, he will see the successful message.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. Systems ask the user to re-enter the User Detail.</li></ol>

**Use Case 7: Edit Faculty/Staff**

<b>Actor</b>	<b>Admin</b>
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. Administrator should be authenticated for login.</li><li>3. Administrator must log onto the System.</li><li>4. Database of teacher profiles should exist.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. An authenticated person should be login successfully.</li><li>2. System will display information successfully.</li><li>3. Administrator will update Faculty or staff successfully.</li></ol>
<b>Main Successful scenario</b>	If the Admin enters the correct info and submit it, he will see the successful message.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. If the Admin enters the incorrect info and submit it, he will see the error message.</li><li>2. Systems ask the user to re-enter the detail.</li></ol>

**Use Case 8: Edit Student Record**

<b>Actor</b>	<b>Admin</b>
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. Administrator must be logged in.</li><li>3. Edit student Form must be opened.</li><li>4. Database of Student profiles should exist.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. Change the information of student</li><li>2. Administrator will update student successfully</li></ol>
<b>Main Successful scenario</b>	If the Admin enters the correct info and submit it, he will see the successful message.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. Systems ask the user to re-enter the User Detail.</li></ol>

### Use Case 9: Edit Result

Actor	User
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. User must be logged in.</li><li>3. Edit result form must be opened.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. Change the information of result</li><li>2. It will update record in database.</li></ol>
<b>Main Successful scenario</b>	If the Admin enters the correct info and submit it, he will see the successful message.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. If the Admin enters the incorrect info and submit it, he will see the error message.</li><li>2. Systems ask the user to re-enter the detail.</li></ol>

### Use Case 10: Print Student Card

Actor	User
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. User must be logged in.</li><li>3. Print student Card must be opened.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. Add Details.</li><li>2. Student Card will Printed</li></ol>
<b>Main Successful scenario</b>	If the User enters the correct info and submit it, he will see the successful message.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. If the Admin enters the incorrect info and submit it, he will see the error message.</li><li>2. Systems ask the user to re-enter the detail.</li></ol>

### Use Case 12: Logout

Actor	User
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. User must be logged in.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. Click the logout</li></ol>
<b>Main Successful scenario</b>	If the User enters the correct info, then he will reach at the login page where he can again login.
<b>Alternate Path</b>	No Alternative. System must logout

### Use Case 13: Enforce Fee

Actor	User
<b>Preconditions</b>	<ol style="list-style-type: none"><li>1. System is up and running.</li><li>2. User must open the fee form page and must select.</li><li>3. User must enter the information.</li><li>4. Database of Student profiles and fee details should exist.</li></ol>
<b>Post conditions</b>	<ol style="list-style-type: none"><li>1. Add details to database.</li></ol>
<b>Main Successful scenario</b>	If the Admin enters the correct info and submit it, he will see the successful message.
<b>Alternate Path</b>	<ol style="list-style-type: none"><li>1. If the Admin enters the incorrect info and submit it, he will see the error message.</li><li>2. Systems ask the user to re-enter the detail.</li></ol>