

Final Year Project Report
Parents Teachers Academic Portal (PTAP)



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C-II Johar Town Lahore Pakistan

Dedication

We dedicate our project to the schools and the educational institutes which don't have financial capacity to upgrade their systems as online platform. It deserves to dedicate this project to the parents and the teachers of the schools who are really concerned for the better future of their children. We also dedicate our project to our professors who helped us to become software developers.

Final Approval

- **Head of Department**

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- **Director Final Year Projects**

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- **Supervisor**

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Acknowledgment

With the mercy of Almighty Allah we gained worth willing knowledge and experience from University of Management and Technology. We are grateful to Almighty Allah for granting us supreme abilities of learning and perceiving skilled knowledge. We are thankful to our supportive and dedicated advisor Dr. Amjad Hussain Zahid and our university professors who helped us in every means of our project and built supreme abilities in us and made us able to develop software and mobile applications.

Project Title:

Parents Teachers Academic Portal (PTAP)

Undertaken by :

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Supervised by:

Dr. Amjad Hussain Zahid

Starting Date:

15-NOV-2019

Completion Date:

28-SEP-2020

Tools Used:

- **Android Studio**
- **Firebase**
- **JAVA**
- **Operating System:**
- **Android**

Plagairism Report

University of Management and Technology, Lahore

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Moreover, I have also checked for the plagiarism beyond Turitin in the documentation and I am convinced that this documentation is not plagiarized.

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Abstract

Now-a-days everyone is dealing with the technology in different aspects of his/her life. While focusing on the Education system of Pakistan, we came to know that there is extreme lack of communication and consultancy between the parents and the teachers of the educational institute of their children. This lack of communication specially faces by schools and colleges. Under this consideration, we have designed an android application for the transparency of the education system in Pakistan. The application named PTAP (Parents Teachers Academic Portal) will provide a platform to the teachers and the parents where they can communicate and consult with each other regarding their students. The functionalities of this application are letting the students to be accountable in front of their parents and the teachers. We are hoping after creating a connection between the parents and the teachers might help a lot to those students whose education is affected due to the negligence of their parents and teachers.

REVISION CHART

Version	Main Author(s)	Details of Version	Date of Completion
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<i>Introductory</i>	Ahmad Hassan, Awais Nadeem, Dilpazeer Abid	Second draft fusing beginning survey remarks, disseminated for definite audit.	15 Feb 2019
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Acronyms and Definitions:

Table 1 below gives the information about Acronyms and Definitions of our project.

Table 1: Acronyms and Definitions

Acronym	Definition
UMT	University of Management and Technology
PTAP	Parents Teachers Academic Portal
DFD	Data Flow Diagrams
ERD	Entity Relationship Diagram
VUOTM	Virtual University Online Teaching Method

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Introduction

1.1 Motivations

Parents Teachers Academic Portal (PTAP) is an android based application. With the help of this application we are providing an easy platform between the teachers and the parents and it is also helping the students to improve themselves by having an overview of their daily reports basically this system has the ability to show the monthly record of the student which they can share with the parents and the management of the school on daily basis in a very simple way.

1.2 Project Overview

Parents Teachers Academic Portal (PTAP) is a portal that is connecting parents and teachers directly with each other. The teachers have the ability to generate comprehensive reports of the students and upload the report on the parent portal. Every parent has an individual profile against their children.

In a specific profile of the student the teacher can do the following actions:

- Mark Daily Attendance
- Make a daily/weekly/monthly/yearly Progress Report
- Can do Announcements

In a specific profile of the student the parents can do the following actions:

- See Progress Reports
- View Attendance
- Survey/Mail

Admin can perform the following actions:

- Add members(create parent account)
- Add notes
- Maintenance

1.3 Problem Statement

According to the research and different survey reports we came to know that lack of communication between teachers and parents is the biggest problem in schools these days. Everyone knows that all of us are living a very busy life due to which it's almost impossible for mostly parents to visit the school of their children for the consultancy and the progress report. This minor negligence leads to the serious educational psychological issues of the children.

1.4 Objectives

We have designed an application that has the following objectives. Basically our application is removing the gap between the teachers and the parents of school students. It is thoroughly updating the parents and the teachers about the academic record of the student both parents and teachers can provide their feedback against each other. All this can be performed with the help of the following features of the application:

- Student record
- Attendance record
- Lecture notes
- Snapshot of marked papers
- Snapshot of the board lectures

2. DOMAIN ANALYSIS

2.1 Customer

All the schools and academies and other educational institute are the customers of this application and teachers and parents are the main users in these institutes.

2.2 Stakeholders

School Management:

Who have the comprehensive reports of everything?

Concern Teacher:

He/she have a specific profile where he/she deals with concerned students and parents

Parents:

They have the specific access to see and react of their children report.

2.3 Affected Groups with social or economic issues

Following groups that are directly or indirectly affecting with social or economic impacts:

- Other online schools systems
- Online educational platforms
- Google meet
- Google class
- Zoom applications

2.4 Dependencies/ External Systems

Following are the dependencies for the concern Project (PTAP)

- Android Service Application
- OS 7 to upward
- Entity framework
- Database Management

2.5 Reference Documents

2.5.1 Related Projects

- Beacon House Android Application
- Punjab College Attendance and online lecture Portal
- Concordia Android Software

2.5.2 Feature Comparison

Similar features of **PTAP** with different relevant software.

Table 2: Features Comparison

Sr. #	UMT Moodle	Virtual University Online Teaching Method
1	Teachers can make Announcement	Can create and Get notifications
2	Can upload assignments, quizzes and notes	Upload notes and assignments
3	Can interact with students only	Interact with students and teachers as well.

Table 3 above is showing the comparison of our project with the other projects that are relevant to them and are currently working in the market. Projects like UMT Moodle and Virtual University Online Teaching Method have some similar features regarding to our project so the table below will help us to compare the features of our project with the other relevant projects.

3. REQUIREMENTS ANALYSIS

3.1 Requirements

Following are some requirements that are necessary for our project.

System Requirement:

- Internet facility
- OS 7 to upward
- Android Version 4.5

Hardware Requirements:

- Minimum 8 Gigabytes ram
- Android mobile phone

Table 3: Function Requirements

Sr. No.	description	Category	Attribute	Details and Boundary Constraints
1	User Sign up to the System	Functional	Username, name, password, contact, number, email	System should be fast enough to response quickly
2	User log in to the System	Functional	Username, password, forget password	System should be fast enough to response quickly
3	User accept the request	Functional	Request	System will display that the accept is requested
5	Controller will add a new employee to the system	Functional	Username, name, password, contact, number	Generate new employee profile
6	Controller will be able to delete an employee in the system	Functional	Name, employee id, Delete	System will delete the rights of the employee
7	Search will be displayed and the relevant names	Functional	String	Display the suggestions
8	System should be fast quick and smooth	Non- Functional	Performance requirement	Quick response
9	System can be used on and android device	Non- Functional	Portability	Can be used in any operating system

Table 3 is showing the functional requirements of some of the functions of our project:

3.2 List of Actors

Following is the list of all the main actors that are performing main role in this application:

- Students
- Teachers
- Admin
- Parents
- Development team
- Institute

3.3 List of use cases

List of main use cases of the application that are performing vital in application are:

1. **Create Account:** Admin will create the account of child.
2. **Login:** User can login using their identification.
3. **Admin uploading notes:** Teacher will upload the notes of the relevant subjects.
4. **Parent checking results:** Parents will be able to see the results of their children.
5. **Teachers uploading results/parents:** Teacher will upload the result of the relevant students
6. **Rating/Feedback:** Rating will be use between teacher and patents.
7. **Students checking all papers and result:** Students will be able to see their results and papers

3.4 System Use Case diagram

Figure 1 is the Use Case diagram of the application PTAP that is elaborating the functionalities of main users of the application.

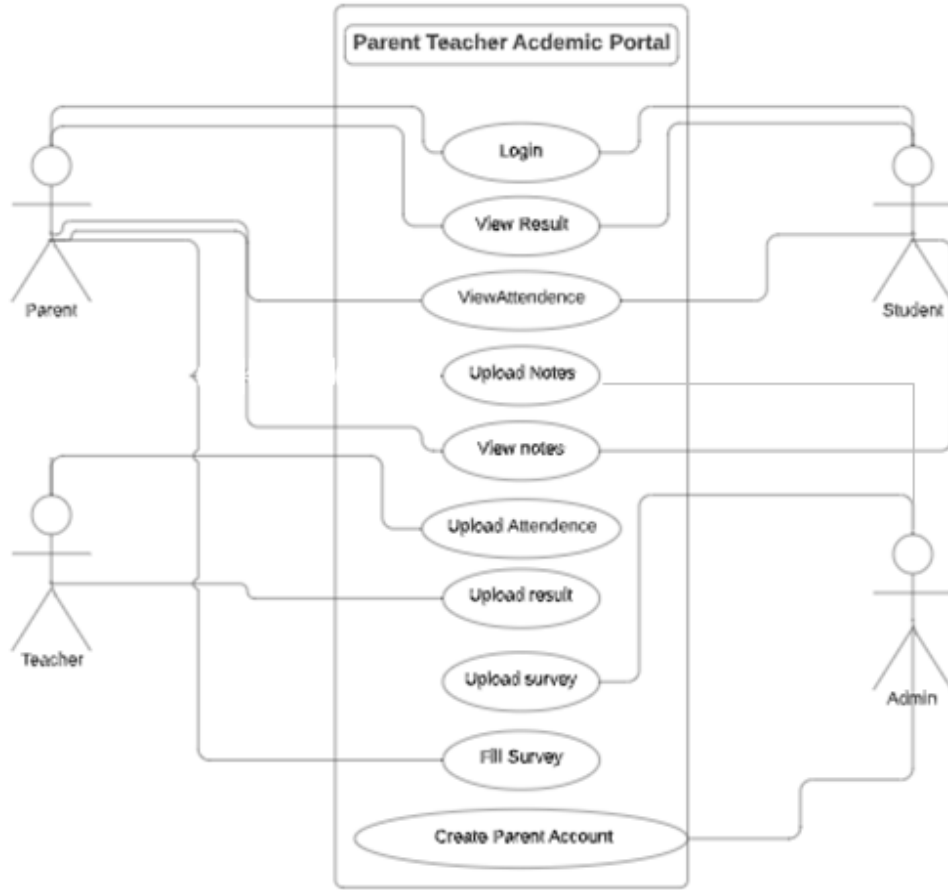


Figure 1: System use Case Diagram

3.5 Expanded Use Cases

Table 4: Login

ID	U-4
Name	Login
Created by	Last updated by: Ahmad Hassan
Design date	Last Revision date: 15 DEC 2019
Actors	Admin, teacher, parent and student
Details	All users enter username and password to login
Trigger	Firstly create accounts
Preconditions	These are the preconditions <ul style="list-style-type: none"> • Enter name and password • Parent must have its child's Authorized ID • Move to normal flow
Post Conditions	These are post conditions <ul style="list-style-type: none"> • It move to Parent panel • Perform all activities according to normal flow
Normal flow	User actions <ul style="list-style-type: none"> • User can enter username • User can enter password • User can enter student ID System actions <ul style="list-style-type: none"> • System checks username in database • System checks password in database • After matching move to authorize page
Alternative Flows:	If there are errors <ul style="list-style-type: none"> • If username mismatch system prompt a message • If password incorrect system generating a message and move to login page
Exceptions:	If username and password not found 3 times then system produce a message "Create Account"
Includes:	There are use case that's may be include might be Students, Teachers, Admin, Parent
Frequency of Use	On demand
Special Requirements:	Username and password are the special requirement And user account
Assumptions:	May be parent sent request to teacher or not
Notes and Issues:	There are some Issues May we include more requirement etc.

Table 4 is showing the all functionality of login panel. If a person enters wrong username or wrong password then a message will generate. If the person forgets the password the admin will generate another password for that person.

Table 5: Create Parent Account

Use case ID	U-5
Use case name	Create Parent Account
Created by	Last updated by: Awais Nadeem
Date created	Last Revision date: 15 DEC 2019
Actors	Parent, Admin
Description:	Parent will enter user name ,relevant student Id and password
trigger	Firstly create email
Preconditions	These are the preconditions <ul style="list-style-type: none"> • Admin will create the account of parent
Post Conditions	These are post conditions <ul style="list-style-type: none"> • After Successful adding requirement have account and move to login page
Normal flow	User actions <ul style="list-style-type: none"> • User can enter username • User can enter password System actions <ul style="list-style-type: none"> • System check the email and save the username and password for login
Alternative Flows:	If there are errors <ul style="list-style-type: none"> • If username mismatch system prompt a message • If password incorrect system generating a message and move to login page
Exceptions:	If username and password not found 3 times then system produce a message "Create Account"
Includes:	There are use case that may be include might be Students, Teachers, Admin, Parent
Frequency of Use	On demand
Special Requirements:	Username and password are the special requirement And user account
Assumptions:	May be parent sent request to teacher or not
Notes and Issues:	There are some Issues May we include more requirement etc.

Table 5 shows all basic requirements to create account in PTAP. The basic requirements from the user will be required. After receiving all the information the admin will generate an account and the user will use that profile created by the admin.

Table6: View Result

ID	U-6
Name	View Result
Designed by	updated by: Dilpazeer Abid
Completion date	Review date: 15 DEC 2019
Actors	Parent and teachers
Details:	Parent will have access to view the results uploaded by the teacher
trigger	Initiate the student and parent
Preconditions	These are the preconditions <ul style="list-style-type: none"> • Must be login
Post Conditions	These are post conditions <ul style="list-style-type: none"> • Must click on the view result option
Normal flow	User actions <ul style="list-style-type: none"> • User will see the result
Alternative Flows:	If there are errors <ul style="list-style-type: none"> • If there is no result then the system will show no results found
Exceptions:	No expectations
Includes:	There are use case that may be include might be Students, Teachers, Admin, Parent
Frequency of Use	On demand
Special Requirements:	Must rate the value of stars
Assumptions:	May be rating available or not
Notes and Issues:	There are some Issues May we include more requirement etc.

Table 6 shows view result option of the application in which the parent is having the authority in its profile to access the results of their children uploaded by the teachers on the weekly or monthly bases.

Table 7: View Attendance

ID	U-7
Name	View Attendance
Design by	updated by: Ahmad Hassan
Completion date	Review date: 15 DEC 2019
Actors	Student, Parent
Details:	Parent and students view the attendance
trigger	Initiate student and parent
Preconditions	These are the preconditions Must be login
Post Conditions	These are post conditions <ul style="list-style-type: none">• Must click on the view attendance option
Normal flow	User actions <ul style="list-style-type: none">• View attendance of student System actions <ul style="list-style-type: none">• System can provide the attendance of student• System will accept the requests and show the attendance
Alternative Flows:	If there are errors <ul style="list-style-type: none">• If there is no attendance then the system also show the absence of the student
Exceptions:	No expectations
Includes:	There are use case that may be include might be Students, Teachers, Admin, Parent
Frequency of Use	On demand
Special Requirements:	Must mark the attendance
Assumptions:	May be attendance available or not
Notes and Issues:	There are some Issues May we include more requirement etc.

Table 7 shows the structure of the online attendance functionality. The attendance is generated by the teachers in the pdf file and uploaded in the attendance section which is accessible by the parents on daily basis

Table 8: Upload Attendance

Use case ID	U-8
Use case name	Use case of uploading the attendance
Design by	updated by: Awais Nadeem
Completion Date	Review date: 15 DEC 2019
Actors	Teacher
Details :	This is providing the student attendance
trigger	Teacher is mark daily attendance of student and uploads the application.
Preconditions	These are the preconditions Must be login
Post Conditions	These are post conditions <ul style="list-style-type: none"> • Must mark and upload the attendance • Perform all steps according to normal flow
Normal flow	User actions <ul style="list-style-type: none"> • User will login to its portal • Must mark and upload the attendance System actions <ul style="list-style-type: none"> • System will give access to the user • System will update the attendance
Alternative Flows:	If there are errors <ul style="list-style-type: none"> • User click on attendance button and system can generate the attendance of the student
Exceptions:	No exceptions
Includes:	This may include attendance of the student
Frequency of Use	On demand
Special Requirements:	No special requirements because admin has all the authorities to tackle the systemic problems
Assumptions:	Admin may control one or more schools at a time
Notes and Issues:	There are some Issues May we include more requirement etc.

Table 8 shows the structure of the online attendance functionality. The attendance is generated by the teachers in the pdf file and uploaded in the attendance section which is accessible by the parents on daily basis.

Table 9: Upload Notes

ID	U-9
Name	Upload Notes
Designed by	updated by: Dilpazeer Abid
Completion Date	Review date: 15 DEC 2019
Actors	Admin
Details:	Admin will upload the relevant notes
trigger	Automatically notified when user receive any notes
Preconditions	These are the preconditions <ul style="list-style-type: none"> • Must be login • Must have notes material
Post Conditions	These are post conditions <ul style="list-style-type: none"> • Must upload notes material
Normal flow	User actions <ul style="list-style-type: none"> • User must be online • User must upload notes System actions <ul style="list-style-type: none"> • System will upload notes on the parents and student portal
Alternative Flows:	If there are errors <ul style="list-style-type: none"> • May have internet connection error
Exceptions:	No exception required
Includes:	This may include Teacher, student, admin, parent
Frequency of Use	On demand
Special Requirements:	Must be online
Assumptions:	Admin may control one or more schools at a time
Notes and Issues:	There are some Issues May we include more requirement etc.

Table 9 shows the functionalities of uploading notes by the authorized admin of the application. Those uploaded note are being accessible by both the teachers and the parents along with their portals.

Table 10: Upload Result

ID	U-10
Name	Upload Result
Designed by	Updated by: Ahmad Hassan
Completion Date	Review date: 15 DEC 2019
Actors	Teacher
Details:	Teacher upload result also upload weekly and monthly results of the students
trigger	Teacher
Preconditions	These are the preconditions <ul style="list-style-type: none"> • Login first • Move to normal flow
Post Conditions	These are post conditions <ul style="list-style-type: none"> • Move to the teacher panel • Do activities according to the normal flow
Normal flow	After login it can perform action User actions: <ul style="list-style-type: none"> • User can give report • User can do announcements- System actions: <ul style="list-style-type: none"> • System can generate report • System can make announcements and show to the parents and student
Alternative Flows:	If there are errors <ul style="list-style-type: none"> • If any error occurs system generate a suitable message for that error • May be adding lecture which are videos so system generating a message.
Exceptions:	<ul style="list-style-type: none"> • If any error occurs system generate a suitable message for that error • May be adding lecture which are videos so system generating a Message.
Includes:	There are use case that may be include might be Students, Teachers, Parent
Frequency of Use	On demand
Special Requirements:	Teacher make announcement and mark the attendance
Assumptions:	Teacher generate reports for one and more than one student
Notes and Issues:	There are some Issues May we include more requirement etc.

Table 10 shows the authorities of teachers in PTAP and the functionalities by which the teachers are uploading the results of the students in the form of the progress report of their students. These results are accessible by the parents through their profile.

Table 11: View Notes

ID	U-11
Name	View notes
Designed by	Updated by: Awais Nadeem
Completion Date	Review date: 15 DEC 2019
Actors	Parents and students
Details:	Parent and student view up loaded notes by the Teacher
Preconditions	These are the preconditions <ul style="list-style-type: none">• Open the uploaded Notes
Post Conditions	These are post conditions <ul style="list-style-type: none">• Download and view the notes
Normal flow	After login it can perform action User actions: <ul style="list-style-type: none">• User will open the notes System actions: <ul style="list-style-type: none">• System will give access to view the notes
Exceptions:	No exception required
Includes:	There are use case that may be include might be Students, Teachers, Parent, Admin
Frequency of Use	On demand
Special Requirements:	No special requirements required
Assumptions:	May be one word or many words
Notes and Issues:	There are some Issues May we include more requirement etc.

Table 11 shows the functionalities of uploading notes by the authorized admin of the application. Those uploaded note are being accessible by both the teachers and the parents along with their portals.

3.6 User Interface of Application

Figure 2 is the user interface screenshot of our application

User Interface: (P1) Sign in a new member.

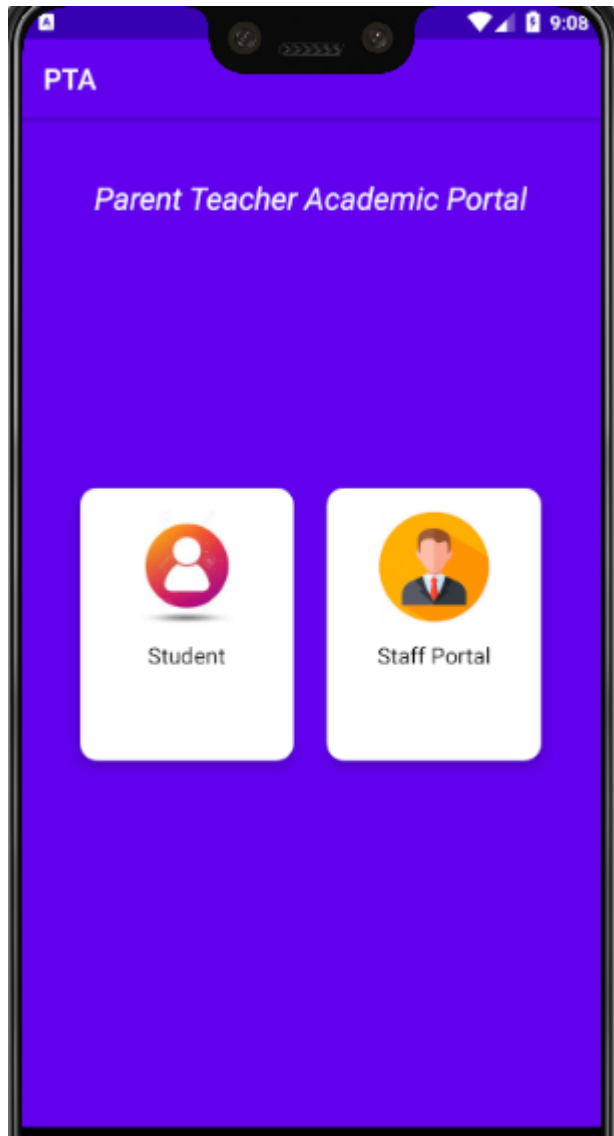


Figure 2: User Interface 1

User Interface: (P2) Almost cover the major functionalities of application.

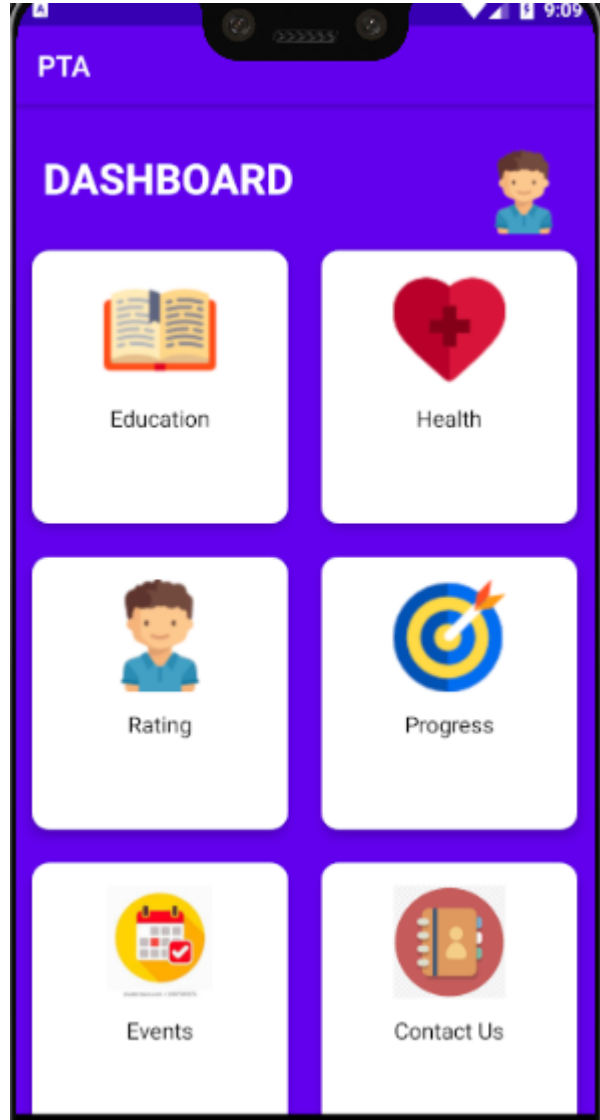


Figure 3: User Interface 2

User Interface: (P3) Teacher Login User Interface

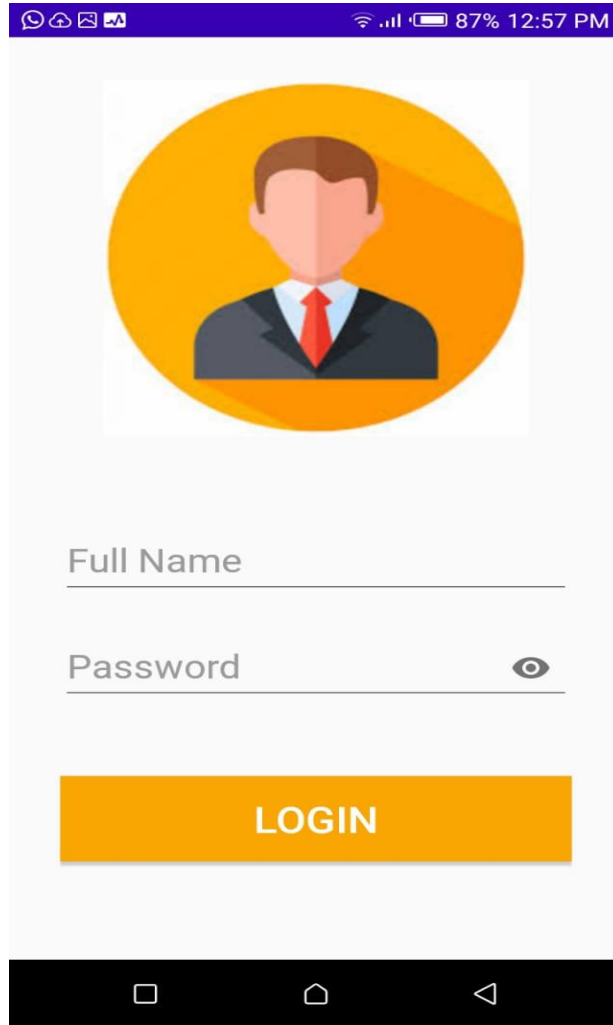


Figure 4: Login User Interface 3

User Interface: (P4) User Interface of all subjects and their notes



Figure 5: User Interface of all subjects and their notes

User Interface: (P5) Rating and Feedback User Interface

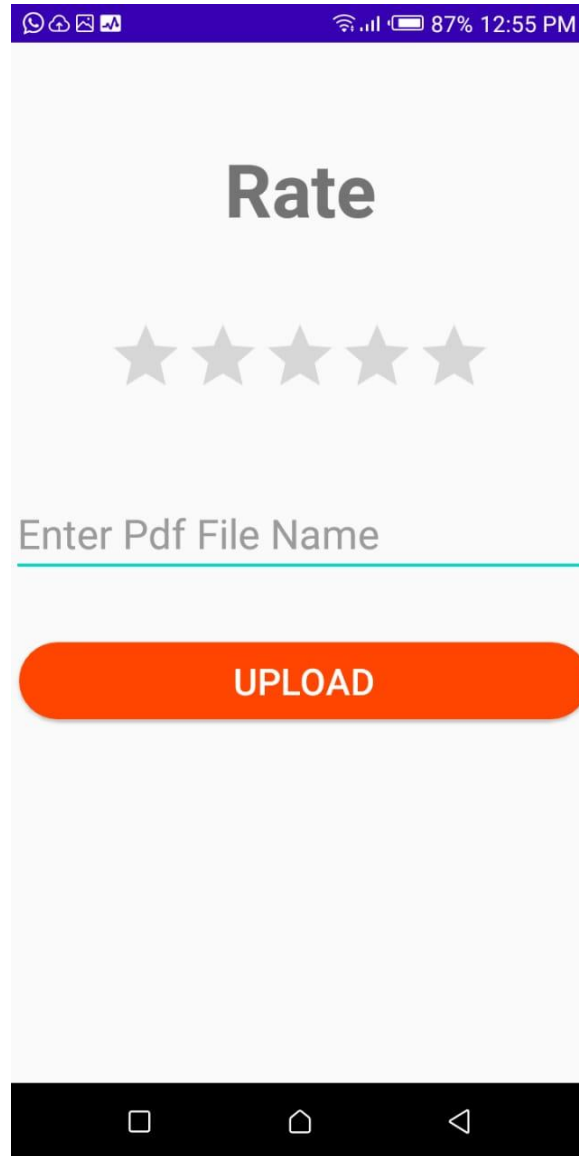


Figure 6: Rating and Feedback User Interface

User Interface: (P6) User Interface of Events and Calendar

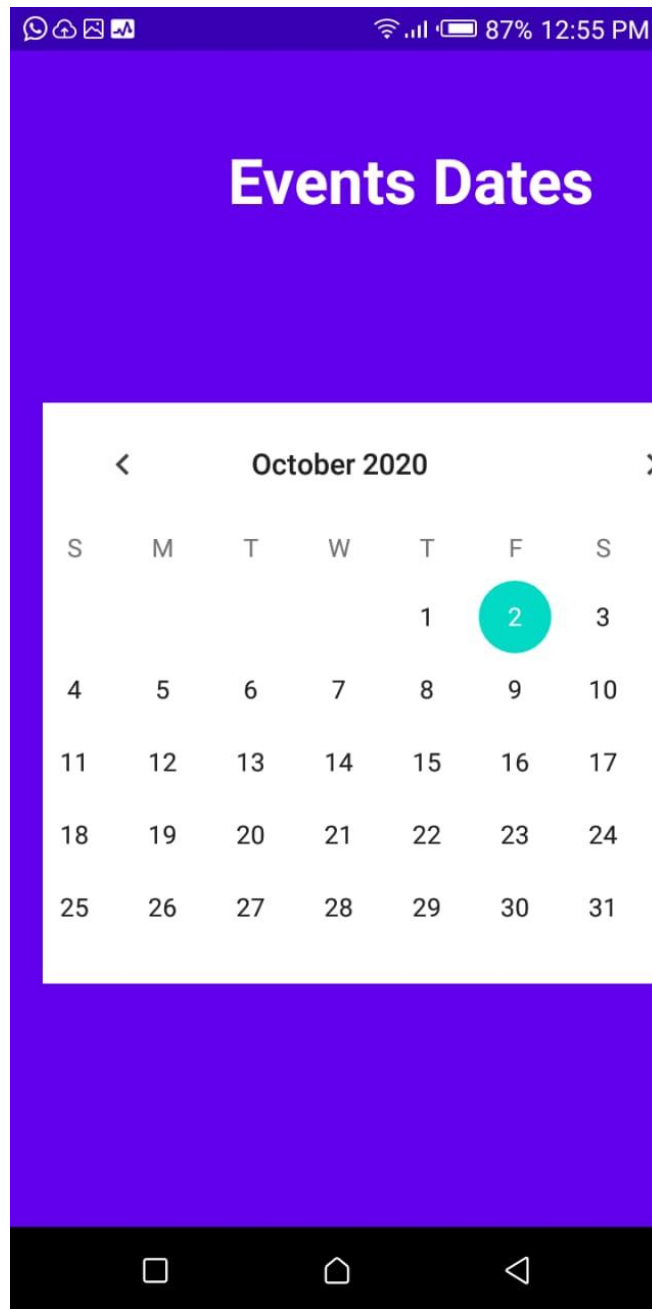
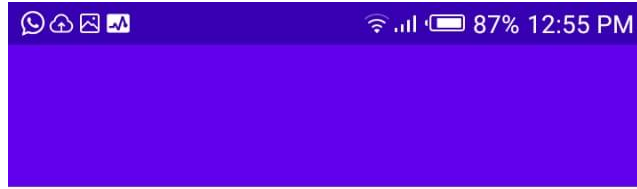


Figure 7: User Interface of Events and Calendar

User Interface: (P7) User Interface of Contact Information



CONTACT US:

ptap001@gmail.edu.pk

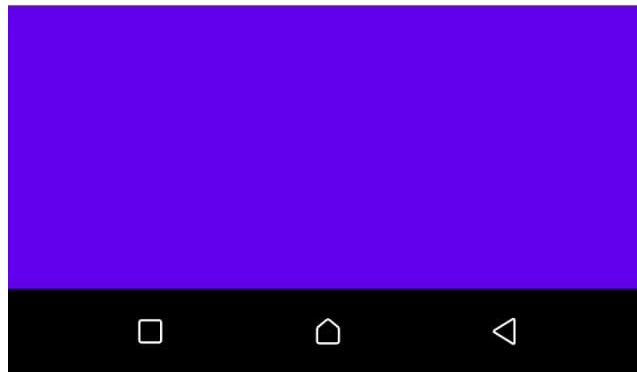


Figure 8: User Interface of Contact Information

4. DATA FLOW DIAGRAM

4.1 Data Flow Diagram Level 0

Figure 9 shows the circulation of data in level 0 Admin have all Login information which is created the admin of the Institutes. After successfully login PTAP give the information according to the actors.

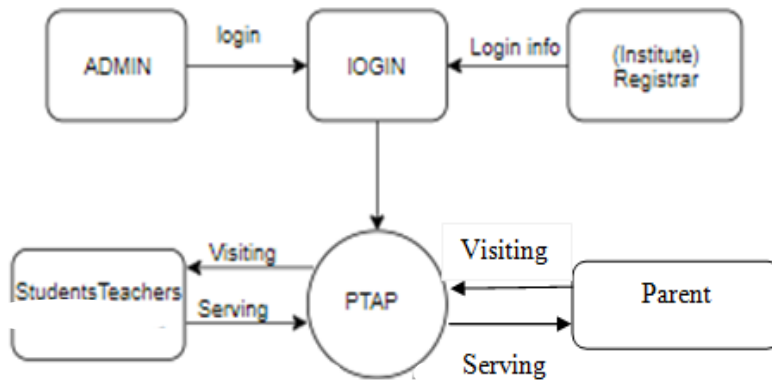


Figure 9: Data Flow Diagram Level 0

4.2 Data Flow Diagram Level 1

Figure 10 shows the circulation of data in level 1 Admin has all the login information which is created by the admin of the institutes. After successful login PTAP give the information according to the actors. Actors move to the data store and check all information which may be stored on database of the PTAP.

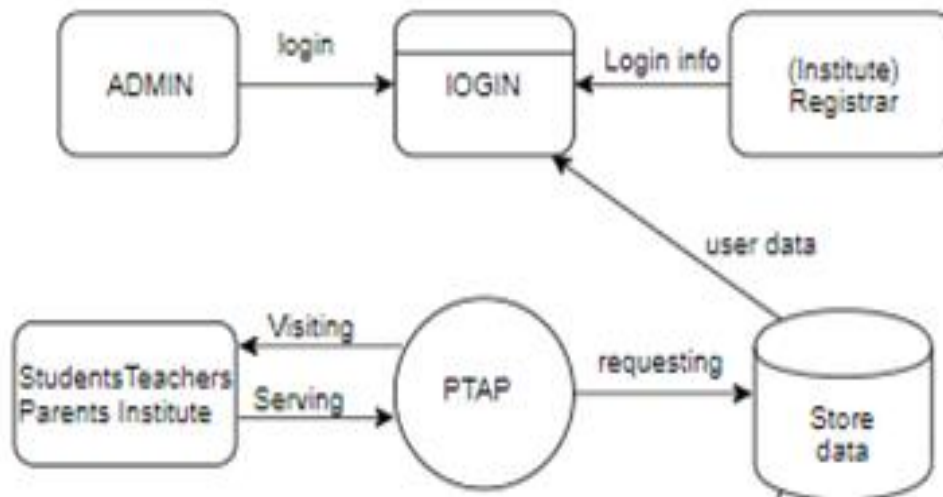


Figure 10: Data flow diagram Level 1

4.3 Data Flow Diagram Level 2

Figure 11 shows the circulation of data in level2 Admin have all the login information which is created be the admin of the institutes. After successful login PTAP give the information according to the actors. Actors move to the data store and check all information which may be stored on database of the PTAP.

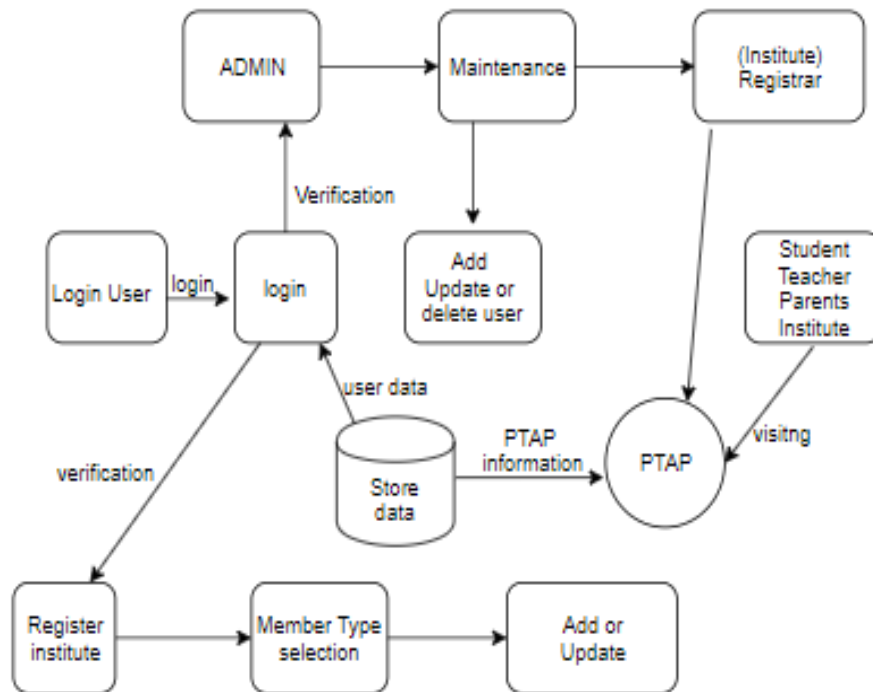


Figure 11: Data Flow Diagram Level 2

5. SYSTEM DESIGNING

5.1 Architecture Diagram of System

Figure 12 is clearly defining that how the admin, teachers, parents and students are interacting with each other in the application.

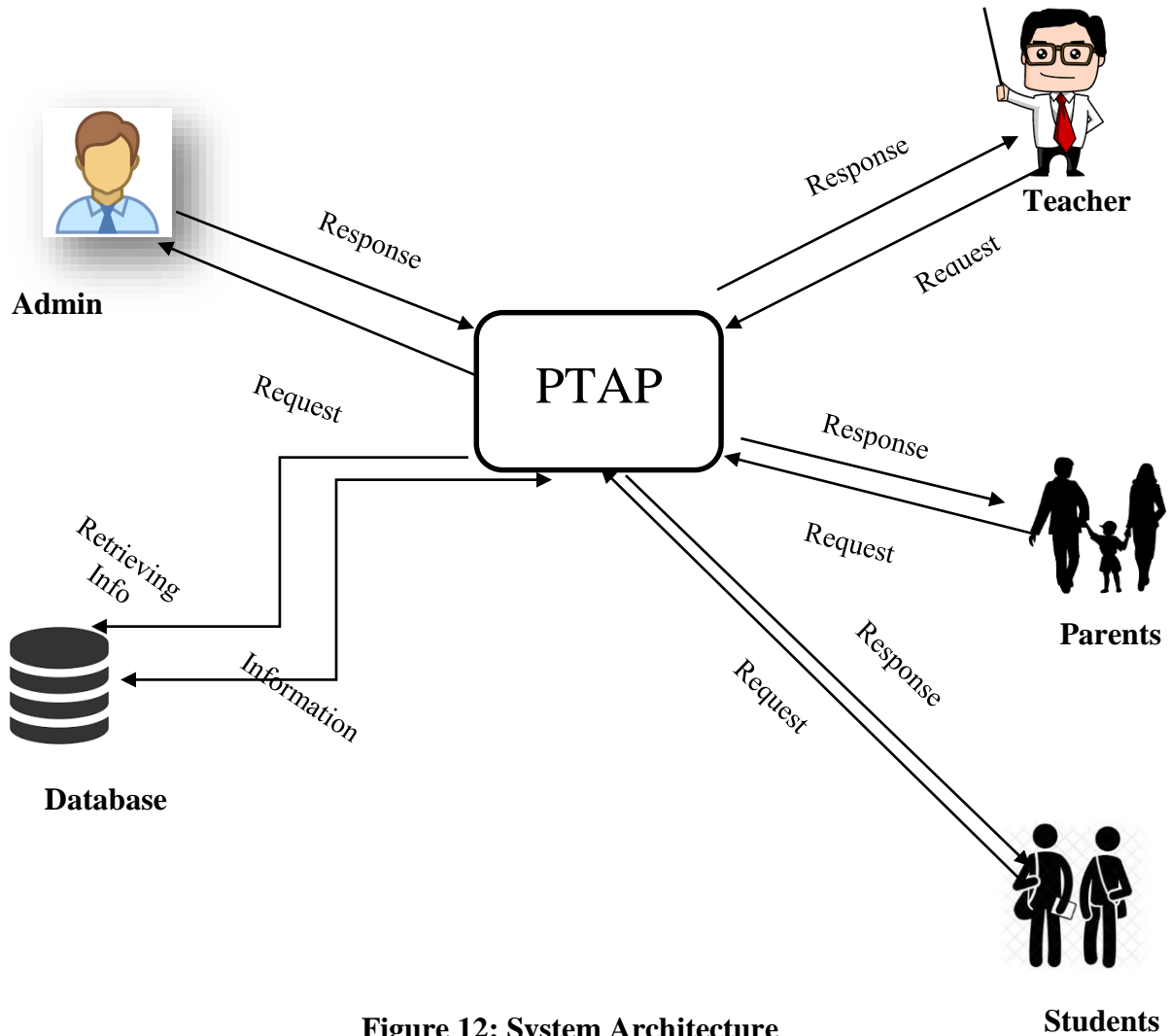


Figure 12: System Architecture

5.2 Class Diagram

Figure 13 is clearly defining that how the admin teachers, parents and student are connecting each other. It is the class diagram which is showing the relationship and methods and other requirements. Here we have a class of person which has different attributes and their functionalities are given below.

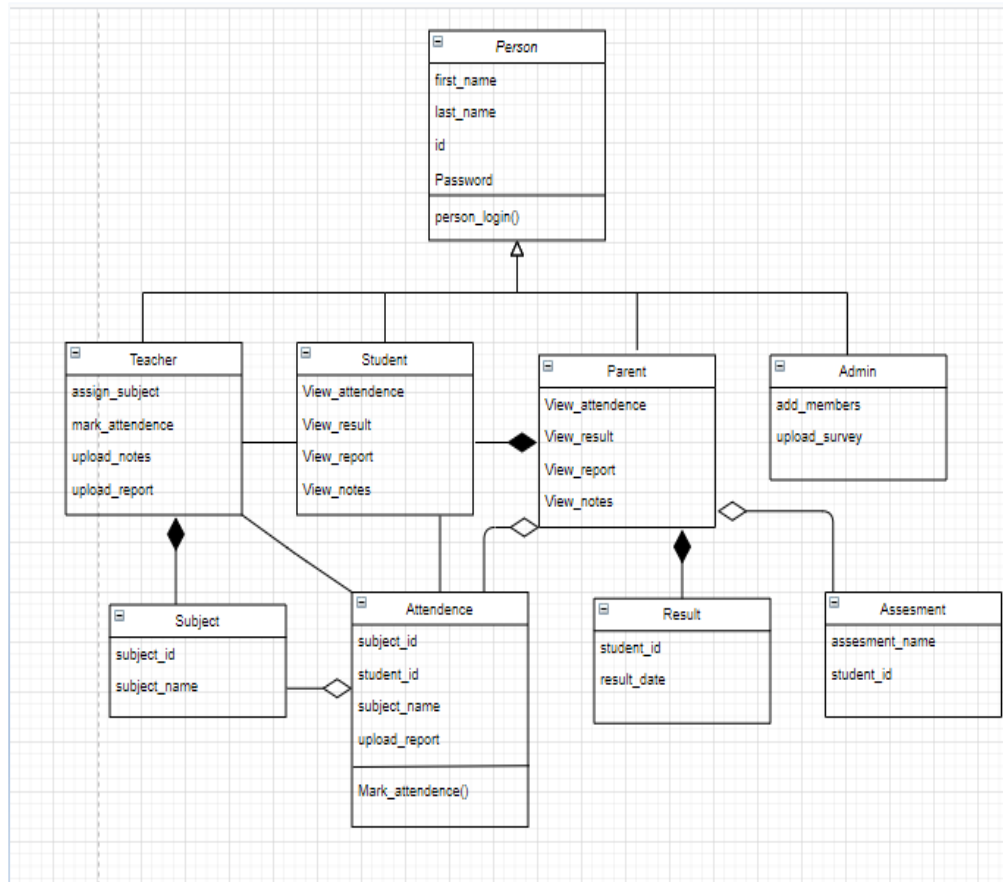


Figure 13: Class Diagram

5.3 Sequence Diagrams

Figure 14 is the sequence diagram of login it is defining and showing the pathway to login the application. Firstly the user will enter the id and password which will be verified from the database. After authorization the user will get the authority to login the application.

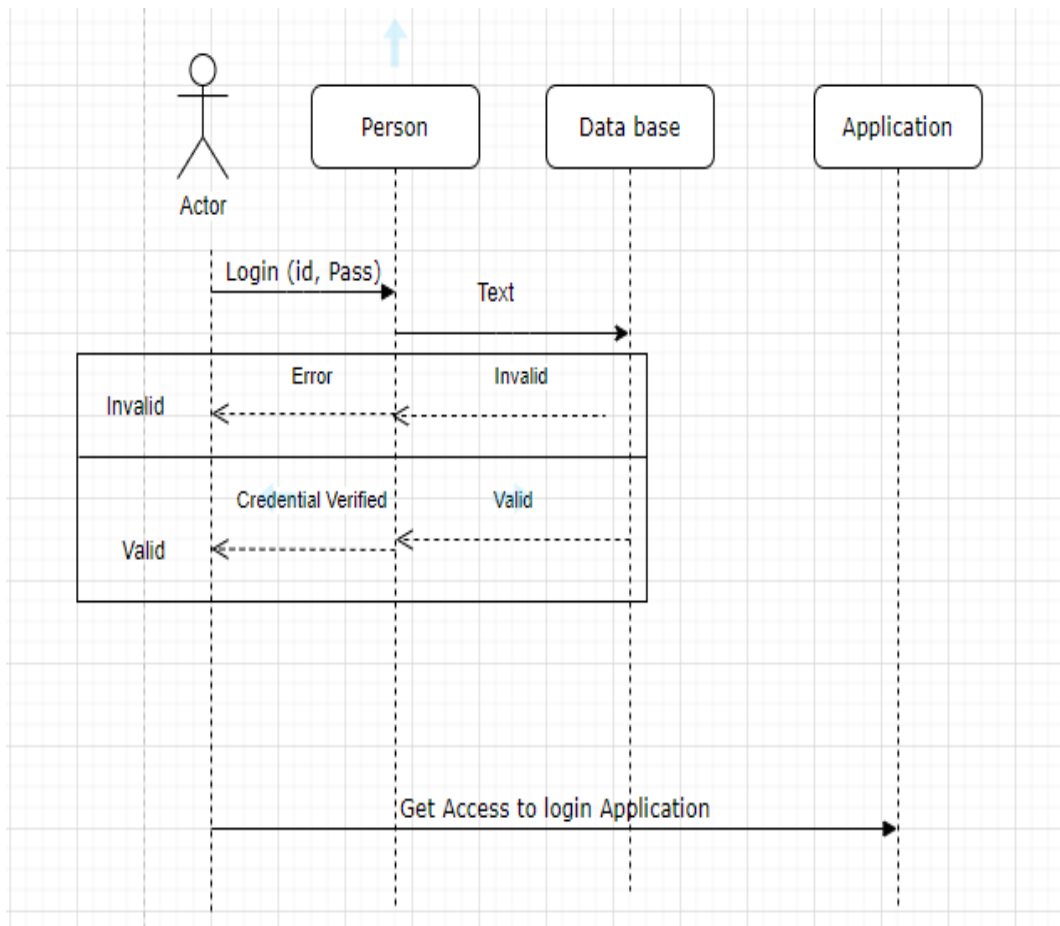


Figure 14: Sequence Diagram

Sequence Diagram of Person

Person is the parent class of all the users that are dealing with almost all the functionalities of the application.

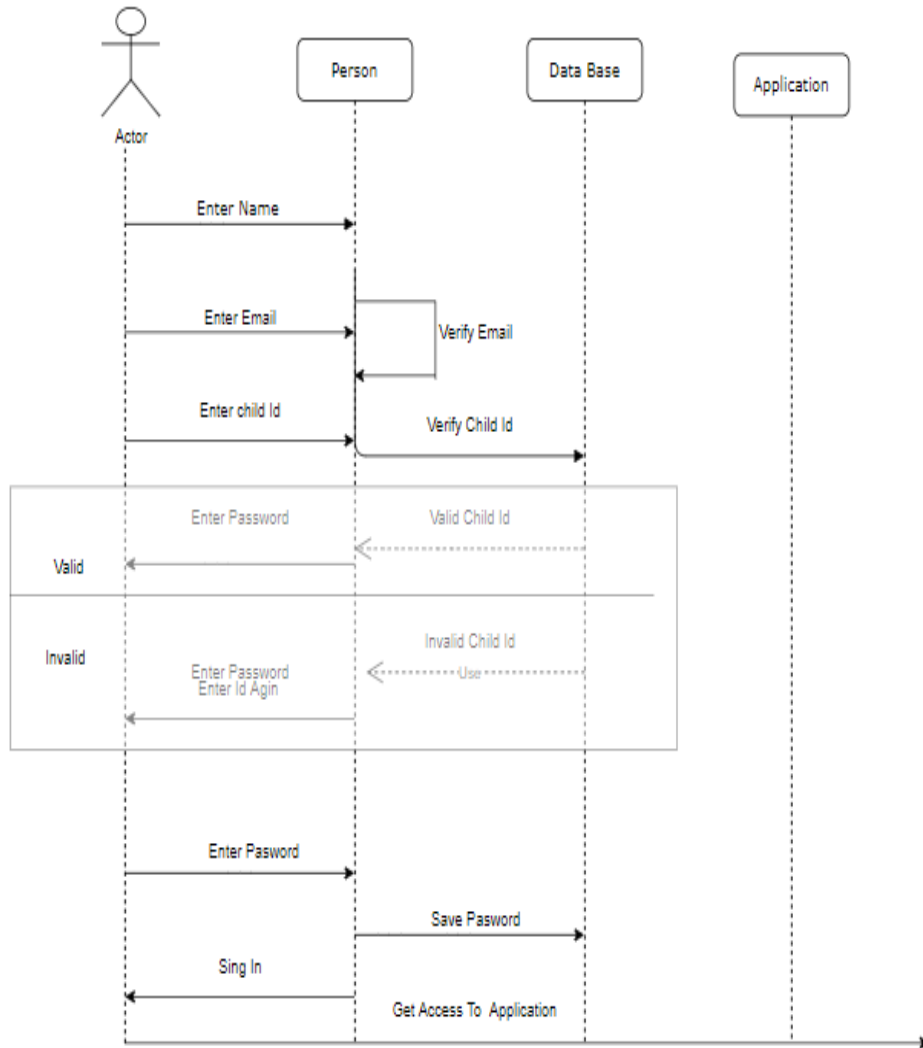


Figure 15: Sequence Diagram of person

Sequence Diagram of Notes

Figure 16 is the sequence diagram for the uploading notes. Here in this function of uploading notes the actor is the admin of the institutes.

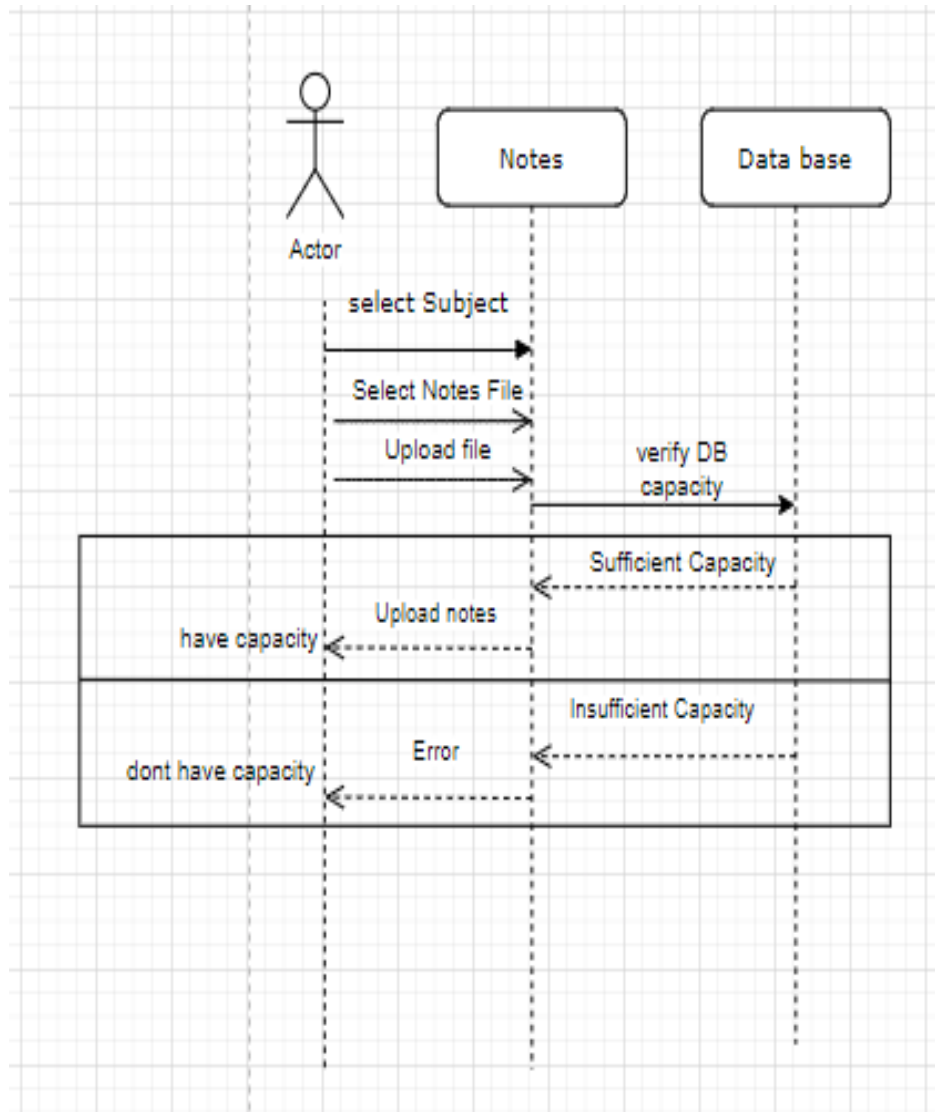


Figure 16: Sequence Diagram of Notes

Sequence Diagram of Result

Figure 17 is sequence diagram of uploading and showing result.

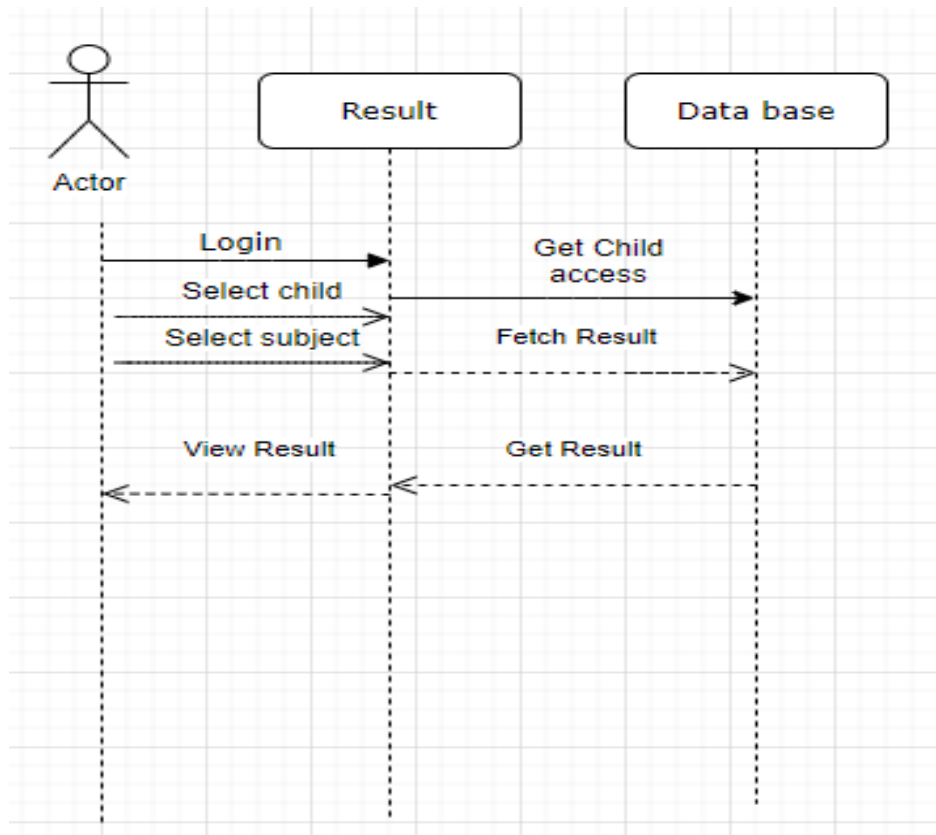


Figure 17: Sequence Diagram of Result

5.4 Collaboration Diagrams

This is the collaboration diagram of our project between two main actors that are parents and admin.

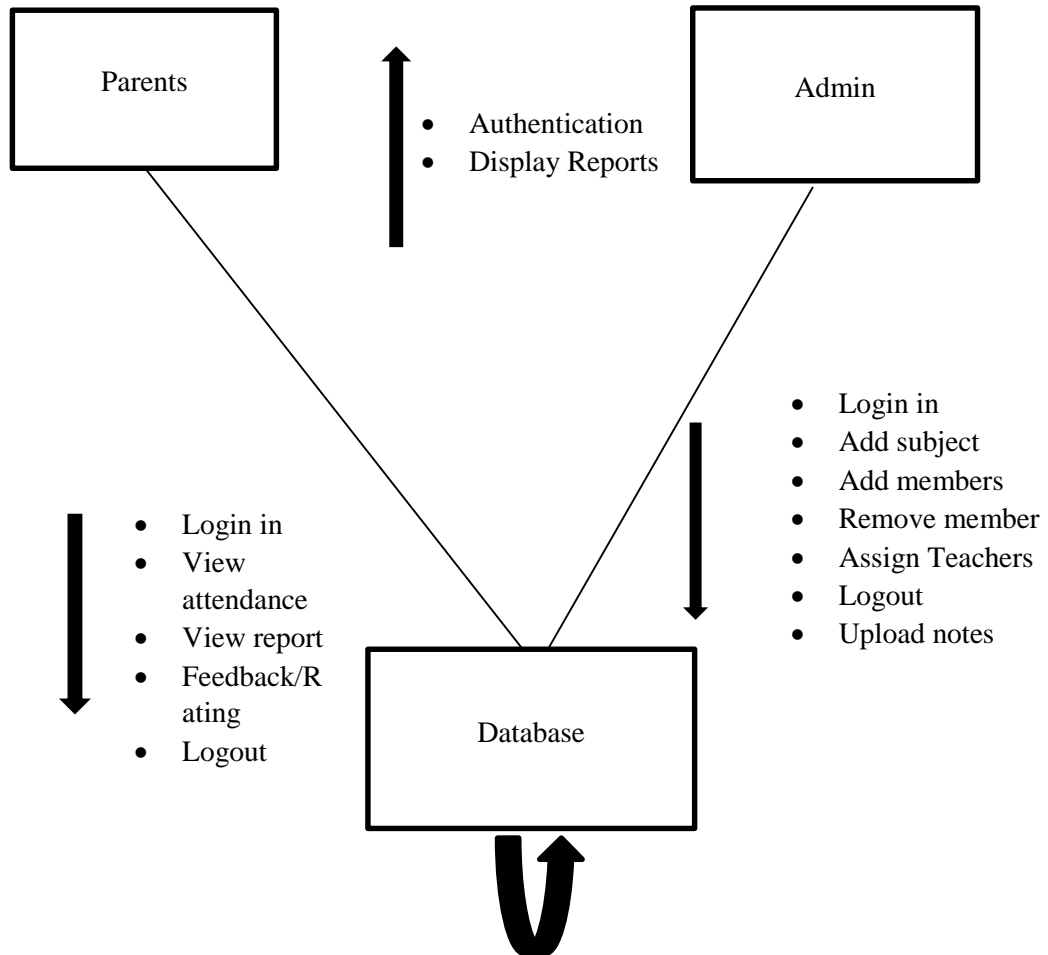


Figure 18: Collaboration Diagram

5.5 Entity Relationship Diagram (ERD)

Figure 19 is having different entities of our project are showing the relationship between them.

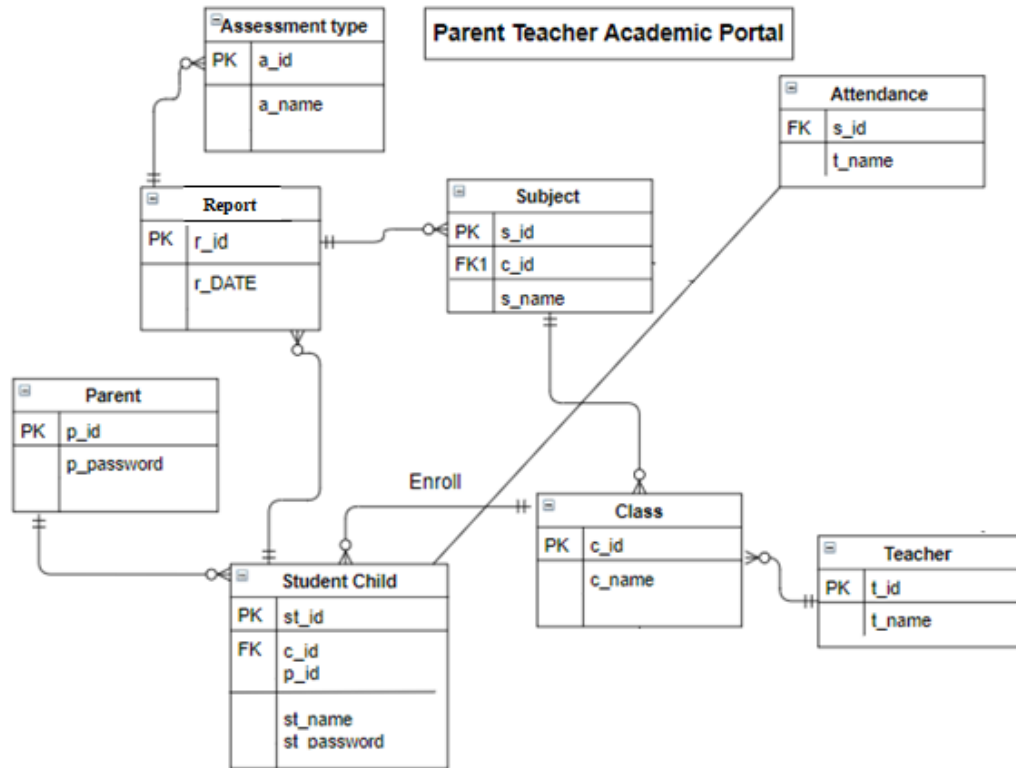


Figure 19: ER Diagram

6. IMPLEMENTATION DETAILS

6.1 Development Setup

- **Android Studio:**

Android studio platform is used for the development of android application.

- **Java:**

Java programming is used in Android Studio for the development of PTAP android application.

- **Firebase:**

It is used for data base purpose and we have used real time data base in our project

6.2 Deployment setup

We deployed our project on our laptops by using the following above platforms. We have faced few issues in features of showing Attendance and the Rating but with the help of our teachers and advisor we got the solution and fixed the problems.

6.3 Algorithms

We have used Login Functions at the same time we have also used Create Account Function and the Rating Function.

6.4 Constraints

6.4.1 Assumptions

Following are some constraints regarding our application:

- Parent can independently give rating to the teachers this might affect the rating if parent will not rate with responsibility.
- Admin can upload irrelevant notes.
- There might be attendance issues in the absence of teacher in the class.

6.4.2 System constraints

As it is just an android application so right now it is not compatible for desktop and ios devices.

6.4.3 Restrictions

- It is only android base application.
- Staff can't access Parent portal and vice versa.

6.4.4 Limitations

We cannot upload video lecture and right now parent and teachers can only communicate via comments.

7. TESTING

7.1 Test Cases

Table 12 is the test cases of our project Parents Teachers Academic Portal (PTAP)

Table 12: Test Case

Test Case ID: Test 1		Design by: Awais Nadeem			
Test's Name: Login functionality of Application		Design Date: 03/09/2020			
Test's Priority: High		Executed by: Awais Nadeem			
Test's Name: Test of Login Button		Execute Date: 05/09/2020			
Description: Account access by using login button in application.					
Pre-Condition: <ol style="list-style-type: none">1. User should have mobile2. Internet availability3. User must need to run an application on his/her device4. Click on the login button					
Dependencies					
No.	Test step	Test data	Expected Result	Actual Result	Pass or fail
1.	Enter a Username	Username			Pass
2.	Enter a Password	Password			
3.	Click On the login button		User can access the Home page	Successfully access the Home page	Pass
Post condition: User login into his/her account successfully.					

7.2 Decision Table

7.2.1 Code snippet

7.2.2 Decision coverage table

Table 13 is the decision coverage table of the project Parents Teachers Academic Portal (PTAP)

Table 13: Decision Table

Conditions	Rule 1	Rule 2	Rule 3	Rule 4
Username	T	T	F	F
Password	T	F	T	F
Actions	T	F	F	T
Login	T	F	F	F

7.3 Traceability Matrix

Table 14 is the traceability matrix table of the project Parents Teachers Academic Portal (PTAP)

7.3.1 RID vs UCID (requirements vs use cases)

Table No 14: Traceability Matrixes

UCID/R ID	F R 1	F R 2	F R 3	F R 4	F R 5	F R 6	F R 7	F R 8	F R 9	F R 10	F R 11	F R 12	F R 13	F R 14	F R 15	F R 16	F R 17	F R 18	F R 19	F R 20	F R 21	
UC1	✓																					✓
UC2		✓	✓												✓							
UC3							✓			✓			✓									✓
UC4													✓									
UC5	✓	✓	✓		✓																	✓
UC6	✓			✓							✓								✓			
UC7			✓						✓				✓		✓							
UC8				✓			✓	✓		✓		✓										
UC9	✓				✓																	
UC10	✓			✓								✓										

7.3.2 Prototypes (RID vs PID)

UCID/R ID	F R 1	F R 2	F R 3	F R 4	F R 5	F R 6	F R 7	F R 8	F R 9	F R 10	F R 11	F R 12	F R 13	F R 14	F R 15	F R 16	F R 17	F R 18	F R 19	F R 20	F R 21	
P1	✓																					
P2		✓																				✓
P3	✓												✓									
P4	✓	✓												✓								
P5			✓		✓				✓											✓		
P6				✓		✓				✓												
P7		✓	✓						✓													
P8	✓									✓					✓							

7.3.3 Test Cases (RID vs TID)

UCID/RID	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
TID1	✓																			✓		
TID2																						
TID3		✓											✓									
TID4		✓									✓			✓			✓					
TID5		✓	✓		✓																	

7.3.4 Coverage (UCID vs TID)

UCID/RID	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
UC-1	✓																					
UC-2		✓																				
UC-3	✓	✓				✓							✓									
UC-4	✓	✓					✓															
UC-5		✓	✓		✓																	

8. OUTPUT/STATISTICS

8.1 Completion%

All the initial requirements have been completed in our project. Our application's almost 90% requirements are fulfilled and are in functional condition.

8.2 Accuracy%

All the functionalities that we have discussed above in the document are in the working conditions which are almost 89% accurate according to the basic requirement.

8.3 Correctness%

The functionalities that we have created in our application are almost working 90% accurately as per the requirements that are listed above in our documentation.

9. CONCLUSION

Parents Teachers Academic Portal (PTAP) is a portal that is connecting parents and teachers directly with each other. The teachers have the ability to generate comprehensive reports of the students and provide the report to the parents. Every parent has an individual profile against their children.

In a specific profile of the Student the Teacher can do the following actions:

- Mark Daily Attendance
- Make a daily/weekly/monthly/yearly Progress Report
- Can do Announcements

In a specific profile of the Student the Parents can do the following actions:

- See Progress Reports
- View Attendance
- Survey/Mail

Admin can perform following actions

- Add members(create parent account)
- Add notes
- Maintenance

10. FUTURE WORK

In future we will add the list of the following feature to enhance compatibility and reliability of our application PTAP:

- Convert it into Web base application(desktop base application)
- Convert it into ios application
- Add the features of video and audio calling between teachers and parents
- Online and live Video lectures.

11. BIBLIOGRAPHY

11.1 Articles

<https://eric.ed.gov/?id=EJ1000688>

11.2 Research papers

<https://pdfs.semanticscholar.org/8182/e2c0b81e0a9d5d923fc490b5a21ecc476d15.pdf>

11.3 Other References

<https://classroom.google.com/u/0/h>

12. APPENDIX

12.1 Glossary of terms

- **Admin:** Admin is a person who is registering the new parent accounts and verifying the registrations of teachers and admin have the authority to add and delete the profile of the teacher and parent.
- **Database:** with the help of firebase admin have the authorities to deal with the data of our application and admin upload the notes in firebase which are accessible by parents.
- **Android Studio:** The whole application is built in android studio by using Java programming language and firebase.

12.2 Pre-requisites

Parents Teachers Academic Portal (PTAP) is supported by following platforms:

- All kind of Android mobile phone and tablets.
- Application will be compatible with Google play store.
- Google chrome will also be compatible to download the Application's