A

PROJECT REPORT ON

SAARTHI

an e-Learning Application

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CERTIFICATE

This is to certify that the practical / term work

carried out in the subject of

Object Oriented Software Engg. and recorded in this

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Table of Contents

1Abstract...……..……..……....……..4
2.Introduction…….….....4
2.1 Project Details: Brief Introduction …….....….....4
2.2 Technology and Tools Used 5
3 Software Requirement Specifications ……...……...…6
3.1 Types of user ……...……..6
3.2 System Functional Requirements …….…….……...7
4.Design…….…….…….….……..……..…11
4.1 Usecase ……..……...……..……...11
4.2 Class …….……....……...….……..……12
4.3 Activity……..…….……...……..13
4.4 Sequence…….……...……..……..……..14
4.5 E-R Diagram …….……..……..…..15
4.6 data Dictionary……..……...…...16
5 Implementation Details …….…….…...…18
6 Testing …….……...19
6.1Test Cases …….……....…19
7 Screen-shots of the System …….…….....……..……...20
8 Conclusion …….…...……24
9 Limitations and Future Extensions of System ……...…24
10 Bibliography …….……..…25

1. Abstract

The **SAARTHI an e-Learning Application** is a windows application for to take quiz in an efficient manner and no time wasting for checking the result. The main objective is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves lot of time but also gives fast results. Learner Can select Standard,Subject And chapter so according to that quiz will be held and Learner Can test ownself. Learner can View own progress also by this application.

2. Introduction

2.1 Brief Introduction

Now a Days Learners are very fond of the system where he/she can evaluate own self without need of any formal presence of Teacher. We provide a system from where Learner of any standard whether is from standard 1 or standard 12 .One can give test by selecting appropriate subject and chapter and evaluate themselves by various questions of our databases. one can also see own progress also by our interfaces so one can improve their knowledge/skill time to time.

2.2 Tools/Technologies Used

Technologies :

Desktop Window FormBase Application in .NET

SQL Server

Tools :

Visual Studio 2019

GitHub Desktop

Umlet

3. Software Requirement Specifications

3.1 Types of User

1. Learner
2. Admin

3.2 System Functional Requirements

Learner Features

R1.1 Manage Learner's Account

R1.1.1 SignUp

Description:- Learner Can SignUp in System by entering Necessary Details i.e. Learner's name,Email,Password.

Input :- Learner Details

Output :- Success/Error Message

R1.1.2 Login

Description:-Learner Can Login in System by entering Necessary Details i.e.Email,Password.

Input :- Learner Details

Output :- Success/Error Message

R1.1.3 LogOut

Description:-Learner Can logOut in System by Click the Appropriate Button.

Input :- Learner Request

Output :- Success/Error Message

R1.2 Manage Learner's Profile

R1.2.1 View Evaluation Report

Description:- Learner Can see his/her progress Report

Input :- Learner Request

Output :- progress Report Details

R1.2.2 Print Evaluation Report

Description:- Learner Can print his/her progress Report.

Input :- Learner Request

Output :- progress Report Hard-copy

R1.2.3 Update Profile Details

Input :- Profile Details

Output :- Success/Error Message

R1.2.4 View Profile Details

Input :- Learner Request

Output :- Profile Details

R1.3 Manage Quiz

R1.3.1 Attempt Quiz Questions

Description:- Learner Can Attempt quiz Questions of specific standard, chapter wise.

Input :- Standard,Chapter Details

Output :- Quiz Questions

R1.3.2 View Quiz Result

Description:- After Submitting quiz answers by Learner system validate each answer and generate result and display it on window.

Input :- Learner Request

Output :- success/error message

R1.3.3 View Attempted Quiz Result

Description:- Learner can View valid answers of quiz.

Input :- Learner Request

Output :- Result Details

R1.4 Download Notes

Description:- Learner Can Download Notes for particular Standard and chapter of it.

Input :- Selection of Note

Output :- Success/Error Message

Admin Features

R1.5 Manage Admin Account

R1.5.1 Login

Description:- Admin Can Login in System by entering Necessary Details i.e. Email,Password.

Input :- Admin Enter Details

Output :- Success/Error Message

R1.5.2 Log Out

Description:- Admin Can log Out in System by Click the Appropriate Button.

Input :- Admin Request

Output :- Success/Error Message

R1.5.3 Display Learner list

Description:- Admin Can See The List Of Learners Existing by Click the Appropriate Button.

Input :- Admin Request

Output :- Learner's List

R1.5.4 Delete Learner Account

Description:- Admin Can Delete Learner's Account.

Input :- Admin Request

Output :- Success/Error Message

R1.6 Manage Quiz Questions

R1.6.1 Upload Quiz Questions

Description:- Admin Can Upload Quiz Questions for specific standard and chapters.

Input :- Question Details ,standard,chapter details.

Output :-Success/Error Message

R1.6.2 Delete Quiz Questions

Input :- standard,chapter details,Question Selection

Output :- Success/Error Message

R1.6.3 View Quiz Questions

Input :- Learner Request

Output :- Notes Details

R1.7 Manage Resources

R1.7.1 Upload Notes

Description:- Admin Can Upload notes for specific standard and chapters.

Input :- Notes,standard,chapter details

Output :-Success/Error Message

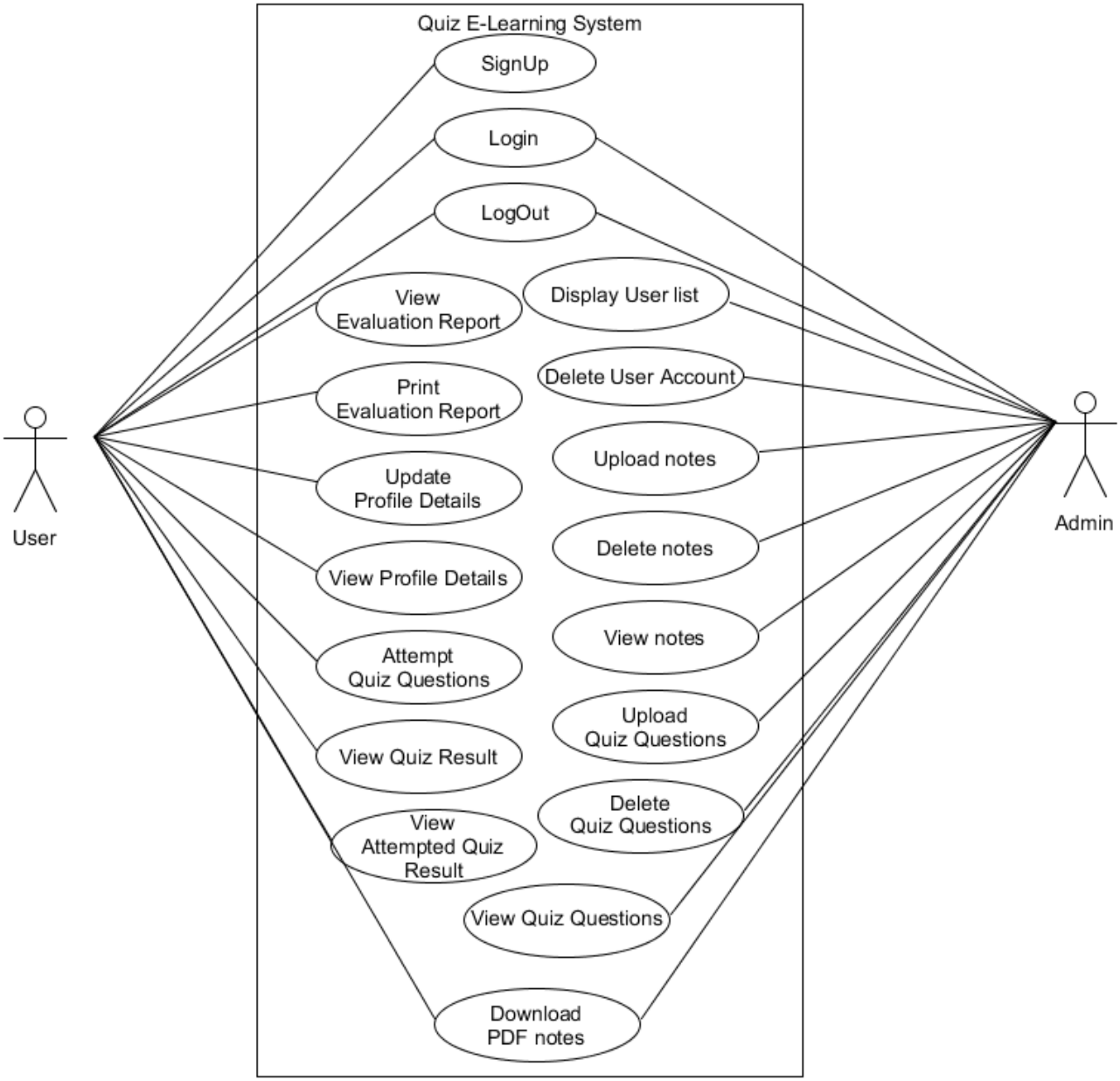
R1.7.2 Delete Notes

Input :- standard,chapter details

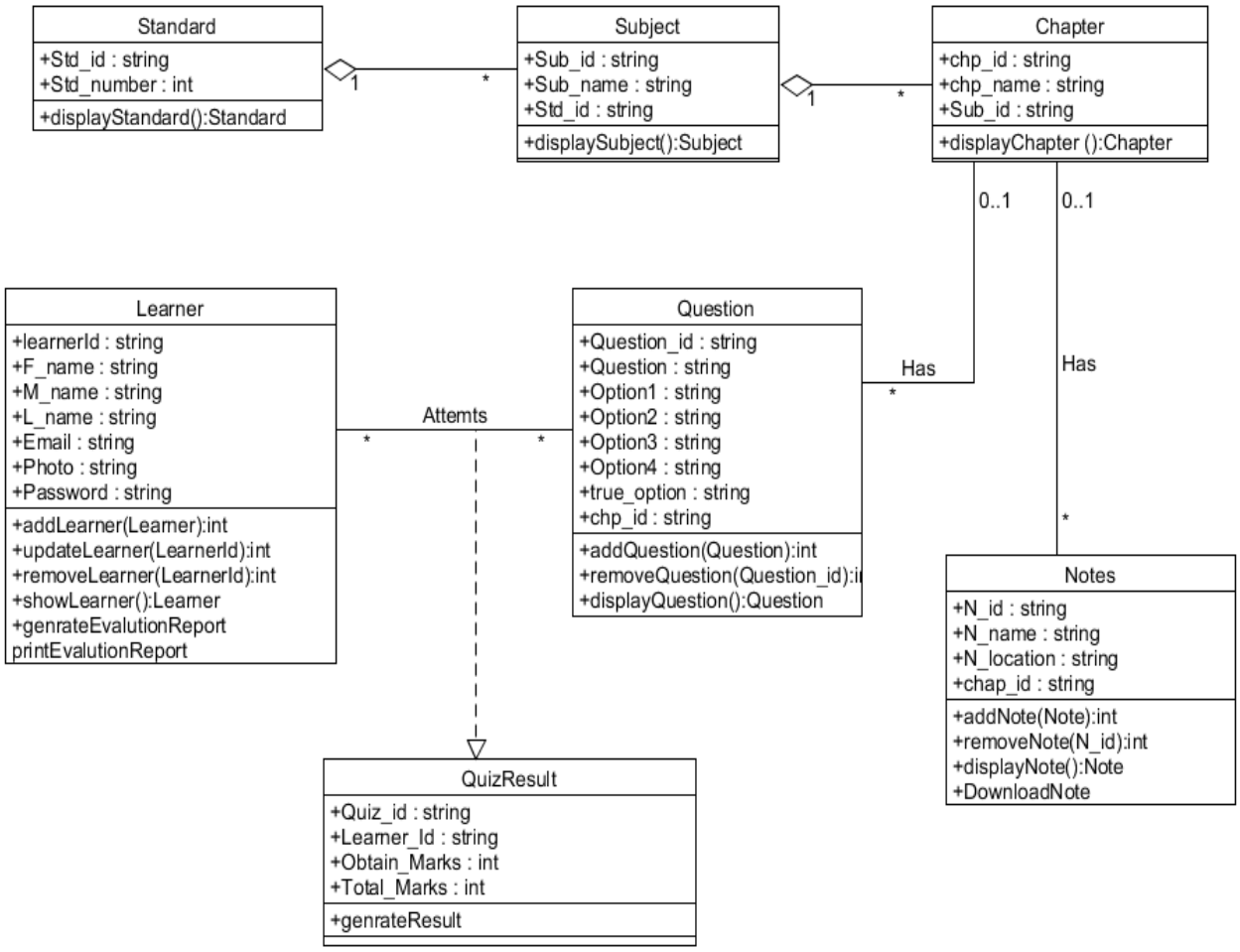
Output :- Success/Error Message

4. Design

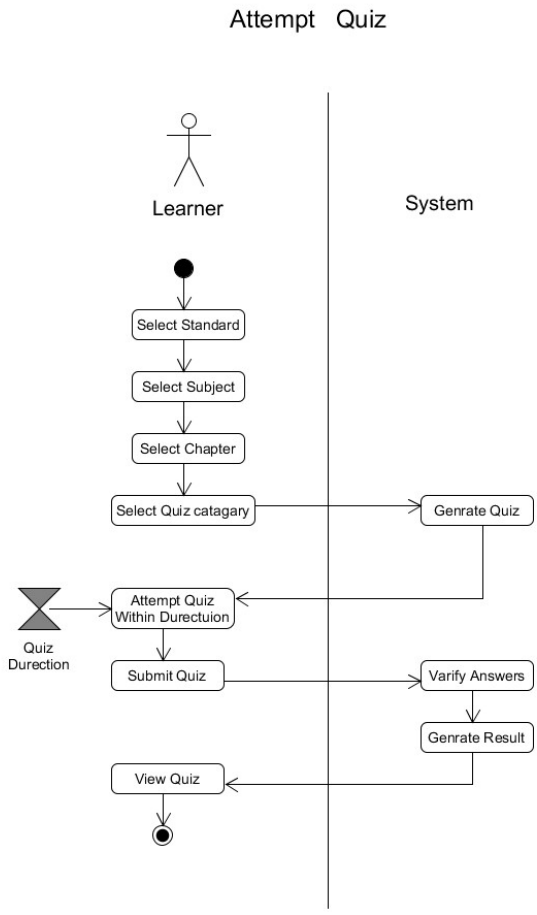
4.1 USECASE DIAGRAMS

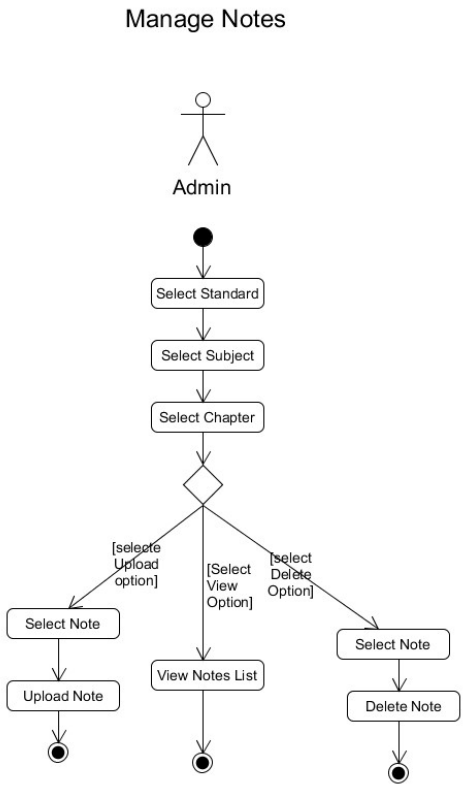


4.2 CLASS DIAGRAMS

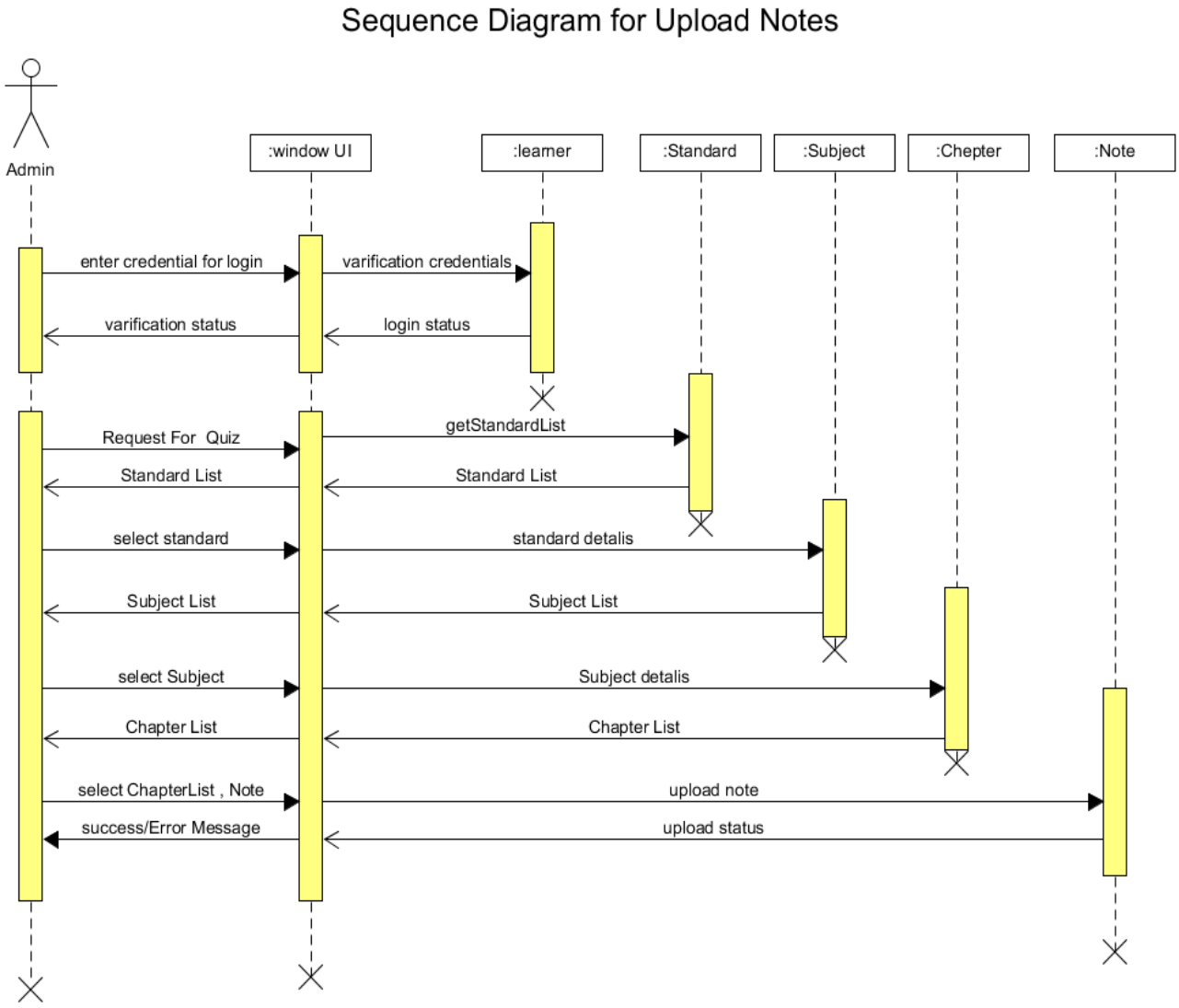


4.3 ACTIVITY


Attempt Quiz
Learner
System
Select Standard
Select Subject
Select Chapter
Select Quiz catagary
Genrate Quiz
Attempt Quiz Within Durectuion
Quiz Durection
Submit Quiz
Varify Answers
Genrate Result
View Quiz


Manage Notes
Admin
Select Standard
Select Subject
Select Chapter
[selecte Upload option]
[Select View Option]
[select Delete Option]
Select Note
Upload Note
View Notes List
Select Note
Delete Note

4.4 SEQUENCE


Sequence Diagram for Upload Notes
Admin
:window UI
:learner
:Standard
:Subject
:Chepter
:Note
enter credential for login
varification credentials
varification status
login status
getStandardList
Request For Quiz
Standard List
Standard List
select standard
standard detalis
Subject List
Subject List
select Subject
Subject detalis
Chapter List
Chapter List
select ChapterList , Note
upload note
success/Error Message
upload status

4.5 E-R Diagram

4.6 Data Dictionary

Data Dictionary - For Saarthi-Quiz E-learning System

Learner							
Sr No.	Field Name	Data Type	Width	Required	Unique	PK/FK	Reference
1	Learner_Id	Varchar	10	Yes	Yes	PK	
2	F_name	Varchar	15	Yes	No		
3	M_name	Varchar	15	Yes	No		
4	L_name	Varchar	15	Yes	No		
5	Email	Varchar	25	Yes	Yes		
6	PhotoURL	Varchar	40	Yes	No		
7	Password	Varchar	10	Yes	Yes		

Standard							
Sr No.	Field Name	Data Type	Width	Required	Unique	PK/FK	Reference
1	Std_id	varchar	10	Yes	Yes	PK	
2	Std_number	int	2	Yes	Yes		

Subject							
Sr No.	Field Name	Data Type	Width	Required	Unique	PK/FK	Reference
1	Sub_id	Varchar	10	Yes	Yes	PK	
2	Sub_name	Varchar	50	Yes	no		
3	Std_id	int	2	Yes	Yes	FK	Standard

Chapter							
Sr No.	Field Name	Data Type	Width	Required	Unique	PK/FK	Reference
1	chp_id	Varchar	10	Yes	Yes	PK	
2	chp_name	Varchar	50	Yes	no		
3	Sub_id	Varchar	10	Yes	Yes	FK	Subject

Cont.

1	Question_id	Varchar	10	Yes	Yes	PK	
2	Question	Varchar	500	Yes	Yes		
3	Option1	Varchar	50	Yes	Yes		
4	Option2	Varchar	50	Yes	Yes		
5	Option3	Varchar	50	Yes	Yes		
6	Option4	Varchar	50	Yes	Yes		
7	true_option	Varchar	50	Yes	Yes		
8	chp_id	Varchar	10	Yes	Yes	FK	Chapter

Notes							
Sr No.	Field Name	Data Type	Width	Required	Unique	PK/FK	Reference
1	N_id	Varchar	10	Yes	Yes	PK	
2	N_name	Varchar	15	Yes	No		
3	N_location	Varchar	40	Yes	No		
4	chap_id	Varchar	10	Yes	Yes	FK	Chapter

QuizResult							
Sr No.	Field Name	Data Type	Width	Required	Unique	PK/FK	Reference
1	Quiz_id	Varchar	10	Yes	Yes	PK	
2	Learner_Id	Varchar	15	Yes	No	FK	Learner
3	Obtain_Marks	int	3	Yes	No		
4	Total_Marks	int	3	Yes	No		

5. Implementation Details

Registration module:

This module is used to store user's data to the database and enables the user to login to the system. All the fields in this module contains required validations. User can also navigate to login page if he/she already registered.

Login module:

This module takes users credentials and then verifies it with registered users, if user is not registered the invalid credentials is shown else if they match with database then login user.

Attempt Quiz module:

In this module Learner Can select Standard,Subject And chapter so according to that quiz will be held On the bases Of Input and Learner Can test ownself .

Progress module:

In this module Learner Can See the results of quiz which he/she has attempted in past.It is represented in tabuler manner with all minor details.

6. Testing

Testcases:

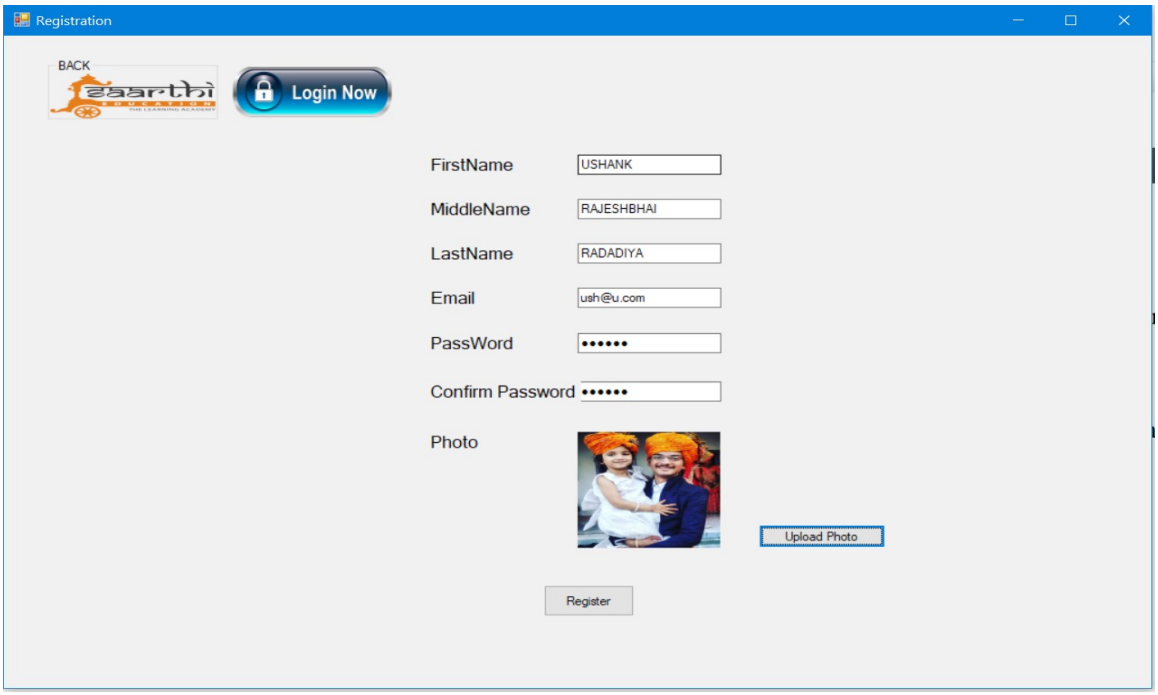
Module name	Field Input	Expected output	Actual output
Login	Username & Password (true input)	Redirect to Home page	Redirect to Home page
Login	Username & Password (wrong password)	Error message and Stay to login page	Error message and Stay to login page
Learner Registration	Email(email which Is already taken)	Warning message and stay to signup page	Warning message and stay to signup page
Attempt Quiz	Selection of valid standard,subject and chapter.	Quiz Created is appear on screen	Quiz Created is appear on screen
Progress module	User Selection	Tabular fields in ehich all details are present	Tabular fields in ehich all details are present

7. screen shots

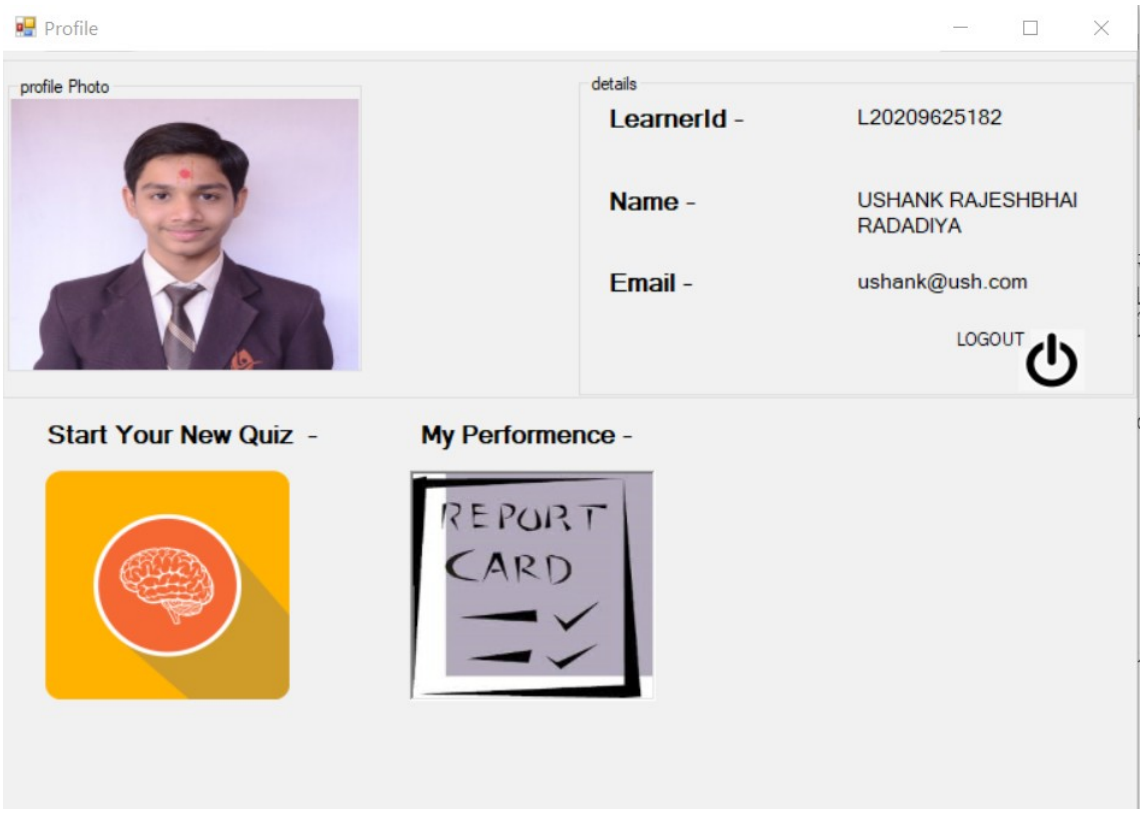
1.Home Page

2.Login Page

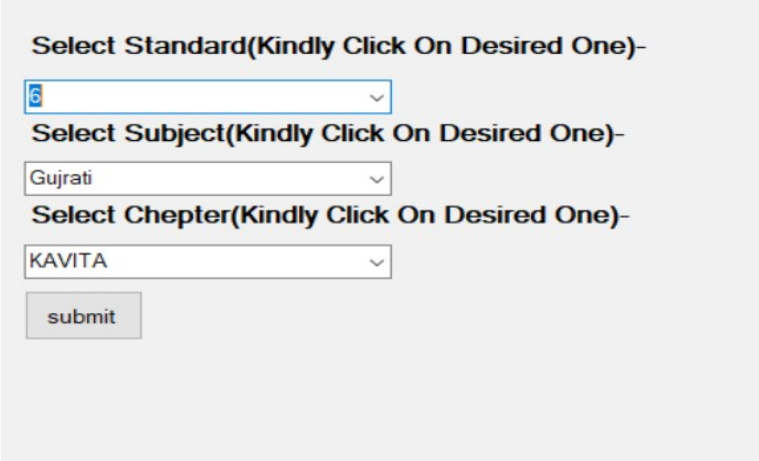
3. Register Page



4.Profile Page

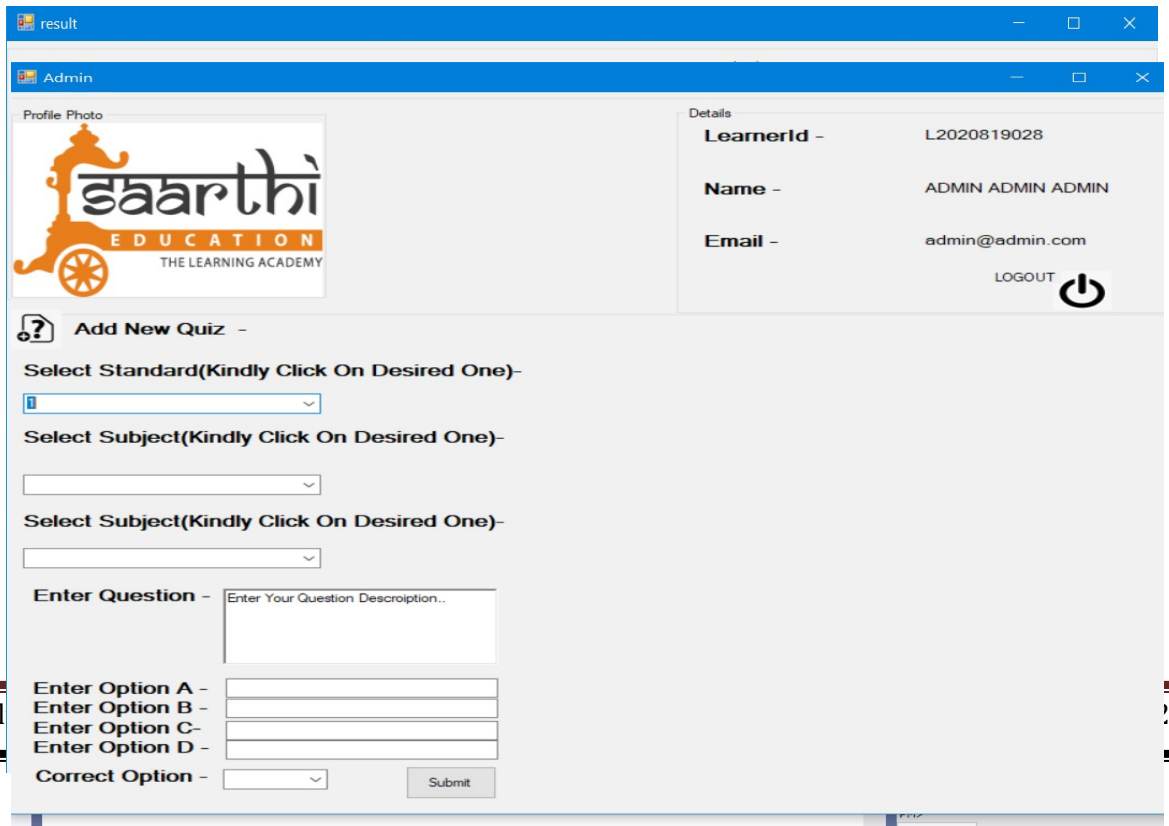


5.Quiz Selection



6. Quiz On Going

7.Progress Report



8. conclusion

The functionalities implemented in system after understanding all the system modules according to the requirements. Functionalities That are successfully implemented in the system are :

- User registration containing all the necessary validation on field
- login
- user authentication
- logout
- Attempt Quiz On basis of Selection of Standard,Subject,Chapter
- Progress Report Of Learner
- Admin side management

After the implementation and coding of system comprehensive testing was performed on the system to determine the errors and possible flaws in the system.

9. Limitations and Future Enhancement

The System has adequate scope for modification in future if it is necessary.

Refining existing services and adding more service, System security, data security and reliability are the main feature.

Currently The Functionalities related to pdf resources has not implemented.

In the future Video/PDF like Resources can be also added for more guidance of Learner and mentor-Lerner kind of relation also be done on platform.

10. Reference / Bibliography

Following links and websites were referred during the development of this project.

https://www.google.co.in

http://www.wikipedia.org

http://www.w3schools.com

http://www.tutorialspoint.com

http://www.stackoverflow.com

https://docs.microsoft.com/en-us/dotnet/framework/winforms/