

SMART SCHOOL ASSISTANT SYSTEM

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This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science in Computer Science and Engineering

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MAY 2021

APPROVAL

This Project titled “**Smart School Assistant System**”, submitted by N M Abu Raihan Chowdhury, ID No:162-15-8124 and Md. Saiful Islam, ID No:163-15-8453 to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 02/06/2021.

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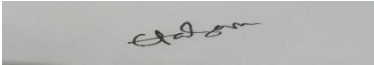
We hereby declare that, this project has been done by us under the supervision of **Md. Jueal Mia, Sr. Lecturer , Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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ABSTRACT

The project "Smart School Assistant System" focuses on web development and design for school management systems. we developed a new website for the school management system. The whole work of my website has been done for the school. To do this, we first make a plan, gather all the information and create a new website. This will help the school to run smoothly and manage all the work in a short time. we will create a portal for users to do things faster than before so that the truth can be proven. Among the users we include management, teachers, students and parents. We have login and logout option in all these users. We have kept the attendances of teachers and students in the management. Student payments and teachers salary options. Teachers can apply for advance salary within the teacher salary. Students will be able to work their class teacher, subjects, routine, timetable, exam details etc. Parents will be able to see their children's study details, subject's teachers, payments, class timetable, exam details etc. Any teacher can easily communicate with students anytime. We will update the results of the students in this system so that they can easily see. This system is very useful, friendly and secure. I used current technology for this management system. I get some precious gaining knowledge of experiences from this project. This project is inspiring me to do extraordinary challenge about development. This experience will aid me in my future work.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

We have developed a system called "Smart School Assistant System". This is a management system project for schools. Most of the schools in our country are not technology based. Schools are still managing their work manually. That's why we wanted to develop a system where school management could be managed more easily and in a new way. We have tried to present this system in the case of school management which will be effective for all related users of any school. To implement this project we have studied in the field and with the help of the internet and determined many features. The system has many features for all users associated with the system to make the school management system more advanced and digital.

In student user, they can edit their profile, view and contacts with the teacher, view their subjects, class timetable and attendance. They can also view payment details and exam details. They can connect with the teachers by friend's option.

In teacher user, they can edit their profile, view and contacts with the students. They can view their subject's, class timetable, exam details, attendance and salary details .They can also apply for advance salary .They can also create and view events.

In admin user, they have full control over the system, they can add new teachers student with parents, they can add classroom, classes, subjects routine, class timetable, add students payments take attendance of students and teacher .They can also add and view exams ,events etc.

In parents user, they can view their sons profile, teachers, subjects, timetable, exam, payments details, attendance and etc.

1.2 Motivation

The concept comes from when we certainly suppose about the communication between teachers, students, and guardians. We can see that the way of communication between the school management and the parents is so far. So we want to do this project to make an excellent bonding and the easiest communication way between School management, teacher & guardian. Those guardians, who are jobholders, can't get all information and updates from school every day. For those this project is very helpful and the best way to connect with the school. Our purpose in this project that anytime, anywhere, guardians can see each & every notification and information from the school. As time goes by, we are trying to improve our education system. Our education system is easier to improve and we have built this system to keep teachers, students and parents connected. It makes the student's and educational organizations day to day work more environmentally friendly and easier. Especially in the pandemic situation of COVID-19, this system will further help the online education system.

We propose to build this system where is a management system that has a connection with the teacher, students, and student parents. So They can communicate with each other easily. Our goal for this project that anytime, anywhere, any user can see each & every notification and information from the school.

1.3 Project Initiation Planning

This project idea comes from me. This venture is a result of my thoughts and hard work. Very beginning I had a number of ideas for my final project. From those several idea's I select school management sector for my project. I had some preceding information of school management and portal system. After consulting with authority and my supervisor, I decided to do this specific project. Then I started my project. My supervisor had given proper instruction.

1.4 Objective

This project has several objectives. The most important objectives are given below: Nowadays people depend upon virtual creation through the phone and therefore the internet. Creating our project with the current technology in mind. Our purpose in creating this project is to build interconnections between schools, students, teachers and parents. One of the main goals is to present all the updates of the management such as attendance, routine, class timetable, exam timetable, teachers salary, students payments in a panel, study materials for students, teacher's work, parents teaching their children, exam details, payments detail, etc makes all this easier.

1.5 Expected Outcome

Proper guideline: Since this system is a project consisting of teachers, students and student parents. Therefore an effective communication is maintained in all of them. As a result, a student gets proper guidelines from his teachers and parents.

Time saving: This application, will save management, students, parents and teachers time and help them to get rid of troubles. management will provide all the updates in this system, so that teachers, students and parents gate the information from anywhere.

Lost documents: All the data of this system is properly saved so there is no possibility of losing any documents. Management If you do any updates like routine, exam timetable, teacher salary, student payments, attendances etc. all the updates will be saved and updated.

1.6 Report Layout

In chapter one, there is introduction, objective and predicted end result of the project work we have carried out is written here and the report layout.

In chapter two, that is about background. This following chapter is all about the historic past state of affairs of our work that we have done. We in addition gave the writing audit of challenge associated investigations and trial of the framework.

In chapter three, we will discuss approximately format specification. This monetary disaster is all about the mission format there may be a few the front give up format work and back-end design.

In chapter four, we will speak about implementation and testing. This chapter tells about how we put in pressure that precise format and examined it and tested it successfully.

In chapter five, we will talk about about have an effect on on society surroundings and sustainability. This chapter will inform us about online platform education impact on society hours after environment and sustainability.

This chapter six is set Conclusion and future scope.

CHAPTER 2

BACKGROUND

2.1 Introduction

In this Chapter ,we try provide an standard idea and knowledge about the background of the full project. Before beginning to make this project we did a deep research about its background. Which sector will we work with, how will we start this project, how will we prepare the database? After a good deal thought, we came to a decision. We are thinking of developing an application that will make the modern student management system more integrated, advanced, simple, affordable and reliable.

2.2 Related Works

There are some related works that has been accomplished on this subject matter but none of them is definitely similar to this project. There are applications named “Institute Management System”[1], “Online education management and information system”[2], “Sms Portal” [3] etc.

2.3 Comparative Analysis

We want to do comparative research to comprehend whether the project we are questioning about or desire to do has been performed before, if so, what platform it is, how it has been done. Comparative studies are very vital for a project. Although there are some projects same to ours, there are comparative variations between them. Some of them might also for only Institute management, some of them are only for student,some of them are teacher & student. But "Smart School Assistant System" is a net base project where management, teacher, student & parents are connected each other.

2.4 Scope of the Problem

Security is a very important issue for any project or site. Having a security system saves any data. But in all cases, it is not possible to provide proper security. When a large amount of data is stored, there is a possibility of data loss. However, we should refrain from all these types of problems. We have worked with all these issues in mind whether the user information is going to the right user.

2.5 Challenges

- ❖ To collect data.
- ❖ User security.
- ❖ Ensure about the right information to the user.
- ❖ Ensure that result can published correctly in the system.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Introduction

For every project, there are some necessities for development. So, our project has also some requirement specifications. As we already understand that Smart School Assistant System is an Web primarily based Application, so we simply want a tab and a Website. We know that there are many Operating Systems on hand in the global market. Among them, Android, iOS, Windows, and blackberry are very popular. But in the preliminary stage, our undertaking will work on Android Operating Systems and Web Application. The user need to have an internet connection on the system to run the application. So the user should have all these requirements.

3.2 Business Process Modeling

The business process model represents the graphical representation of a business process. If a task needs to business then there are two viable ways for business process modeling. One is that the ‘As-is’ nation which is employed for the kingdom of the approach because it is real now without making any change and consequently the other is that the ‘To-be’ nation which is employed for future method [4].

The following figure 3.2.1 shows Business Process Modeling-

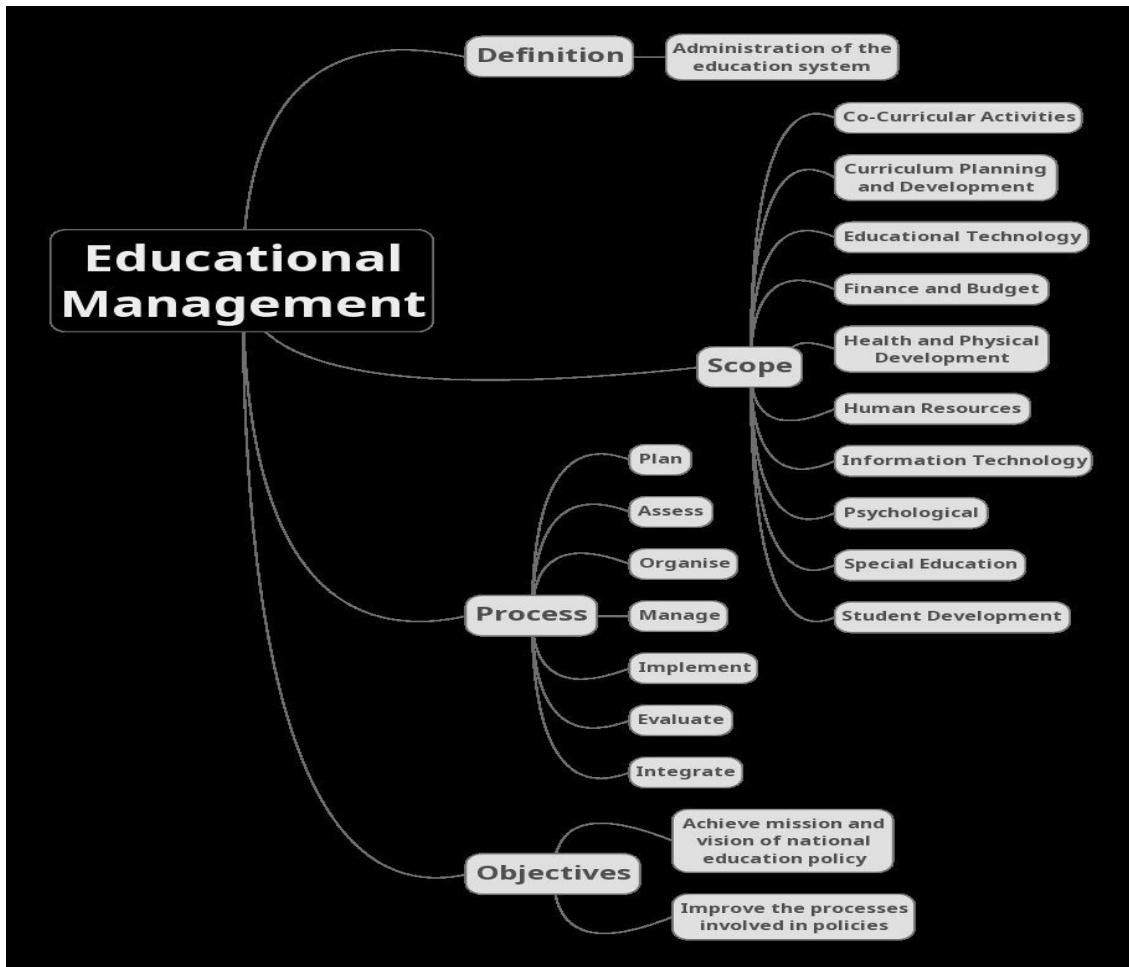


Figure 3.2.1 : Figure of the Business Process Modeling.

3.3 Use Case Modeling and Description

A use-case model is a model of how distinct types of users engage with the gadget to clear up a problem. The most imperative model factors are: use cases, actors and the relationships between them. A use-case plan is used to graphically depict a subset of the model to simplify communications. In this project, there are some actors like Admin, teacher, students & parents. How they related to each other and with the total system that can be viewed by way of the use case model. [5].

3.3.1 Use Case Diagram

Use case design for Smart School Assistant System is shown below. At the identical time, one of a kind actors have been described as follows:-

Actors: Admin, Students, Teachers, Parents.

Coordinating with use cases for these actors are:-

Admin: user profile, add Teachers, view user profile, add student , add classroom , manage class routine & timetable, student payments add attendance ,exams & results, add events & friends.

Teachers: Login, logout, manage student & subjects, manage exam , add mark, check Papers, attendance, add salary, add events & friends.

Student: user profile, appears for subjects ,timetable, attendance, exams, result, events & friends.

Parents: Login, logout, user profile, my son's teachers, subject, timetable, attendance, fees payments & exam details.

The following figure 3.3.1 show the use case diagram-

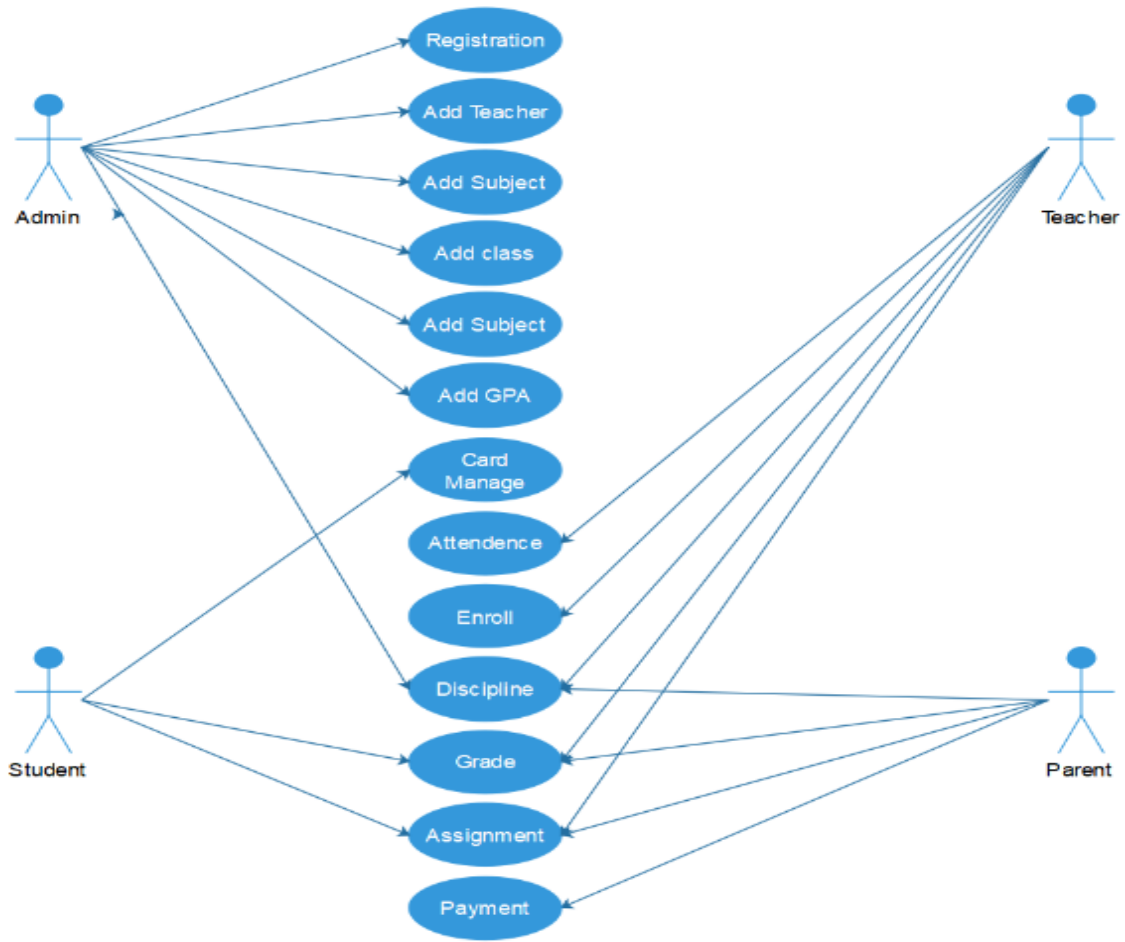


Figure 3.3.1 : Figure of the use Case Diagram.

3.3.2 Use Case List

User can view all information.

3.4 Logical Data Model

A logical information model represents the definition, characteristics, and relationships of records in a technical, conceptual, or commercial enterprise environment. This technique can assist you suppose about quite a wide variety of factors that compose your company’s enterprise data and how these factors relate to one another. The logical facts model is used to become aware of the structure of information elements and to set the relation between them. It is a logical statistics model that does no longer symbolize the bodily structure [6].

The following figure 3.4.1 show the logical data model -

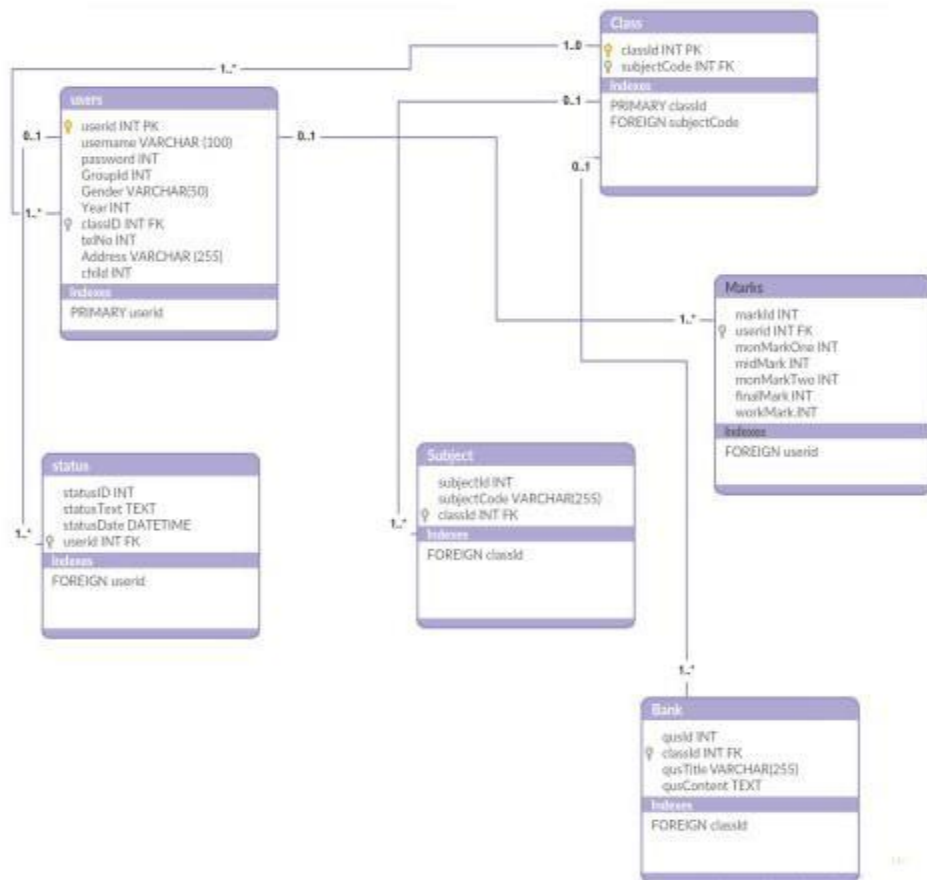


Figure 3.4.1 : Figure of the Logical data model.

3.5 Design Requirement

3.5.1 Class Diagram

In software engineering, a category plan in the Unified Modeling Language is a kind of static structure sketch that describes the shape of a system via showing the system's classes, their attributes, operations, and the relationships amongst objects [7].

The following figure 3.5.1 show the Class diagram-

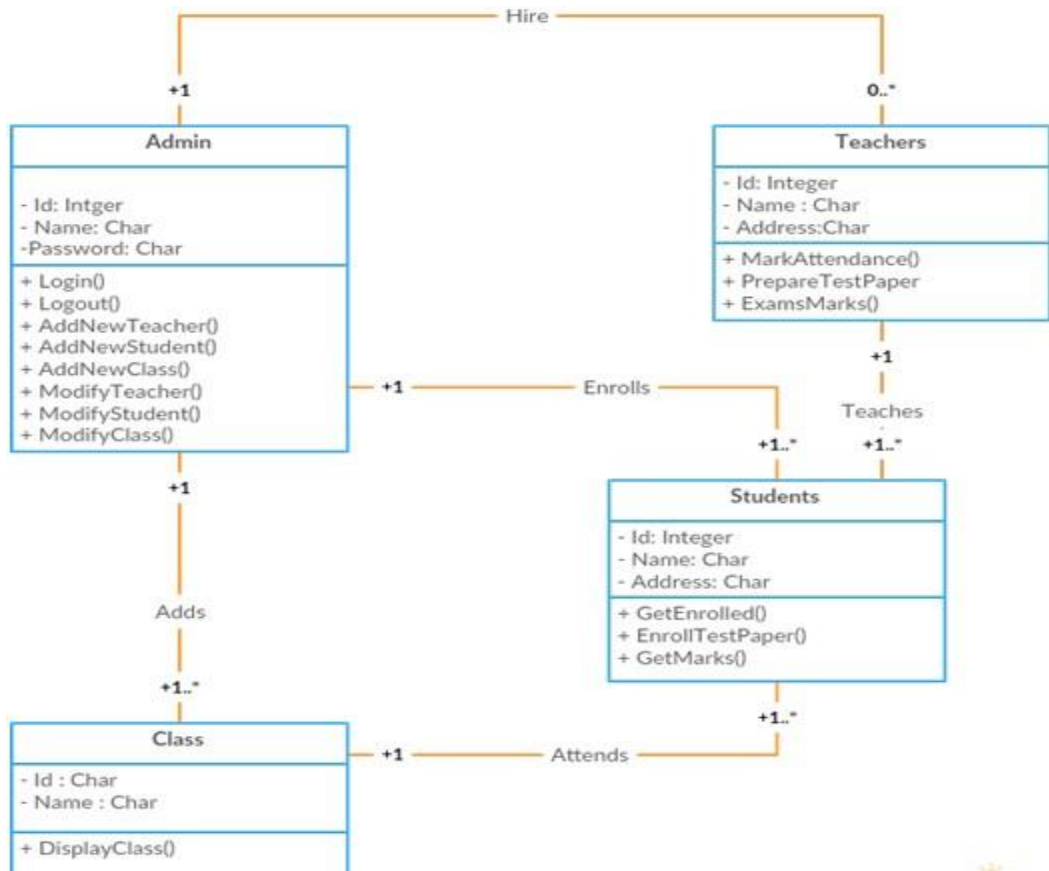


Figure 3.5.1: Figure of the Class Diagram.

3.5.2 Activity Diagram

An activity diagram is a behavioral diagram. it depicts the behavior of a system. An activity design portrays the manipulate flow from a start point to a finish point showing the a range of choice paths that exist while the activity is being carried out [8].

The following figure 3.5.2 show the Activity Diagram:

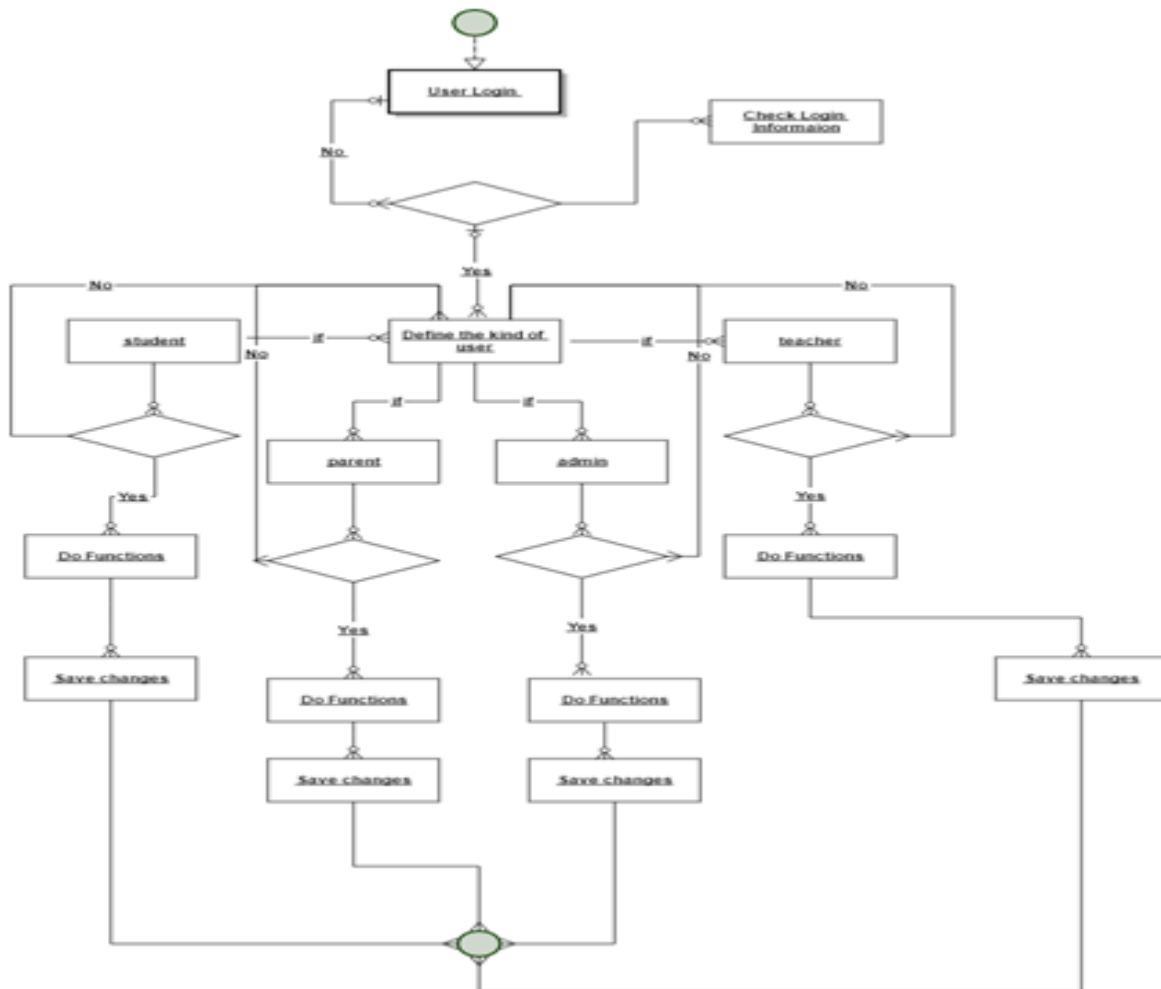


Figure 3.5.2 : Figure of the activity diagram.

3.5.3. Sequence Diagram

A sequence diagram surely depicts interaction between objects in a sequential order i.e. the order in which these interactions take place. We can additionally use the phrases event diagrams or match eventualities to refer to a sequence diagram. Sequence diagrams describe how and in what order the objects in a device feature [9].

The following figure 3.5.3 show the Sequence Diagram:

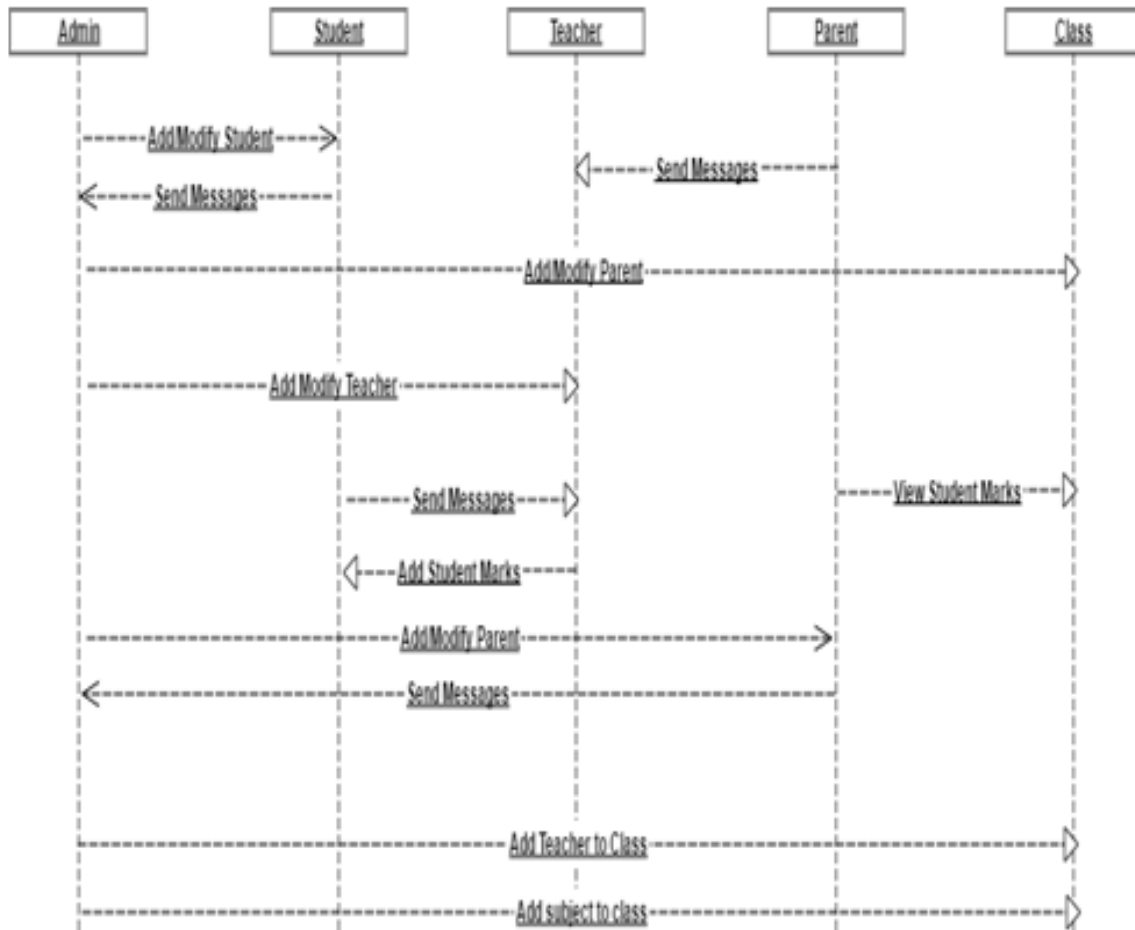


Figure 3.5.3 : Figure of the sequence Diagram

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front –end Design

An web application has two parts: one is front end and the other is back end. Front-end users layout with everything, counting plan and some languages similar to HTML and CSS. Front-end layout is the representation of software. We created a easy front-end format for the customers to co-operate with the software easily.

The following figure 4.1.1 shows the System portal Login.

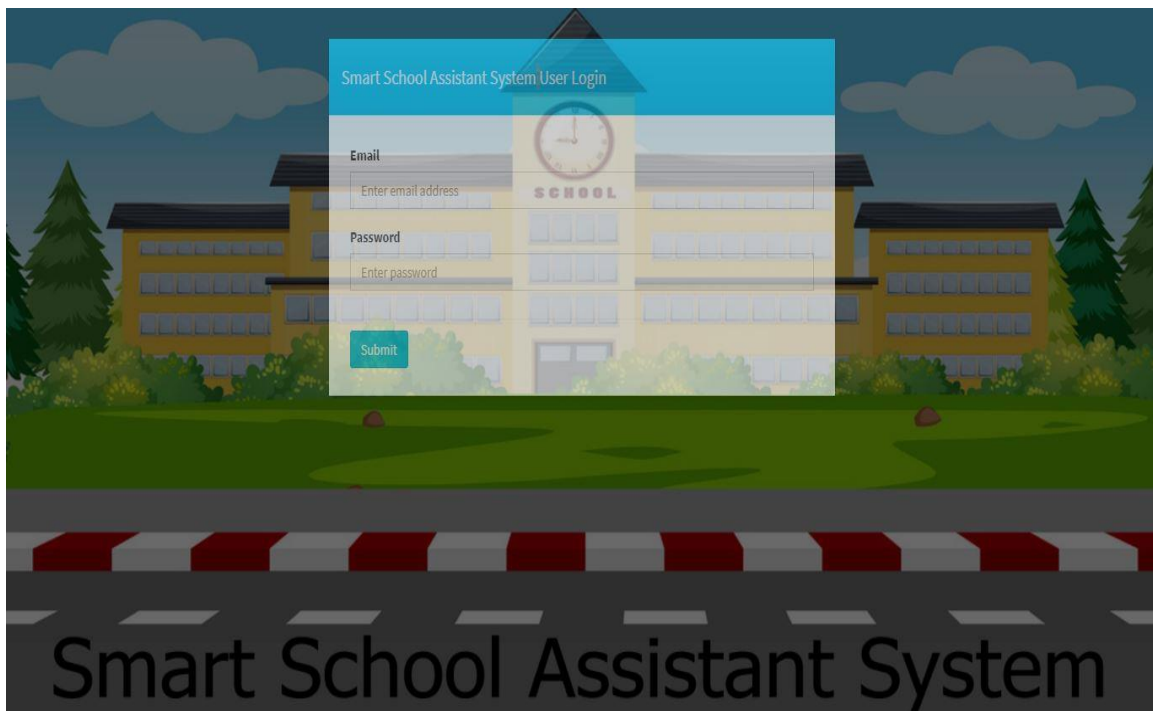


Figure 4.1.1 : Figure of the System portal Login.

The following figure 4.1.2 shows the system portal Dashboard.

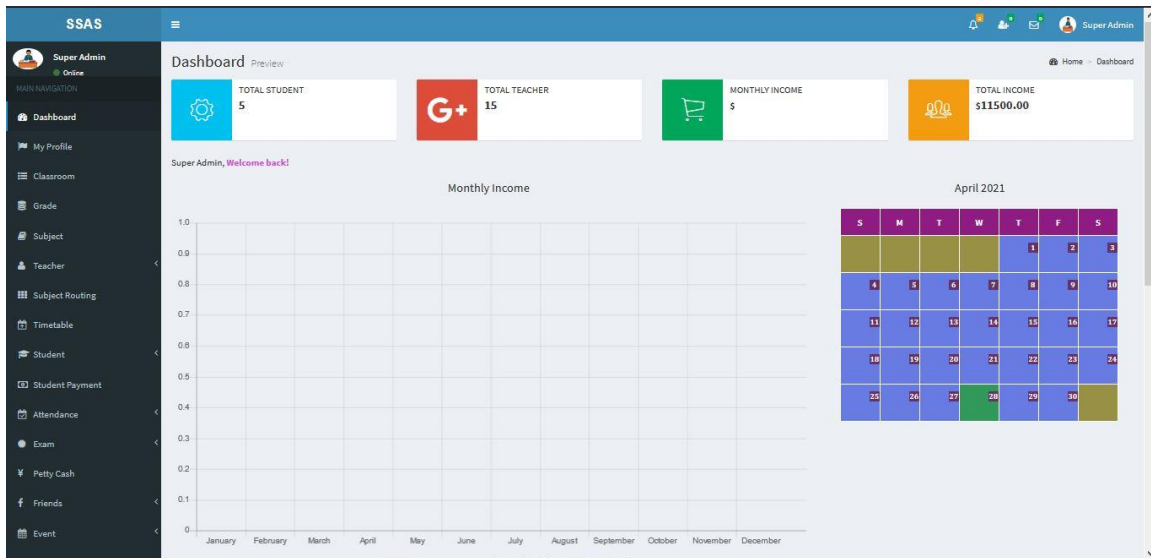


Figure 4.1.2 : Figure of the system portal Dashboard.

4.2 Back-end Design

In this project we work with web applications. For the Back-end design, we use java. We all know java is used for a lot of development work. Provide better user interfaces and dynamic internet site the usage of Java Script and JQuery. Manage dynamic contents, databases and session tracking using PHP v.7.

4.3 Interaction Design and User Experience

The following figure 4.3.1 shows the Basic Structure of User Experience

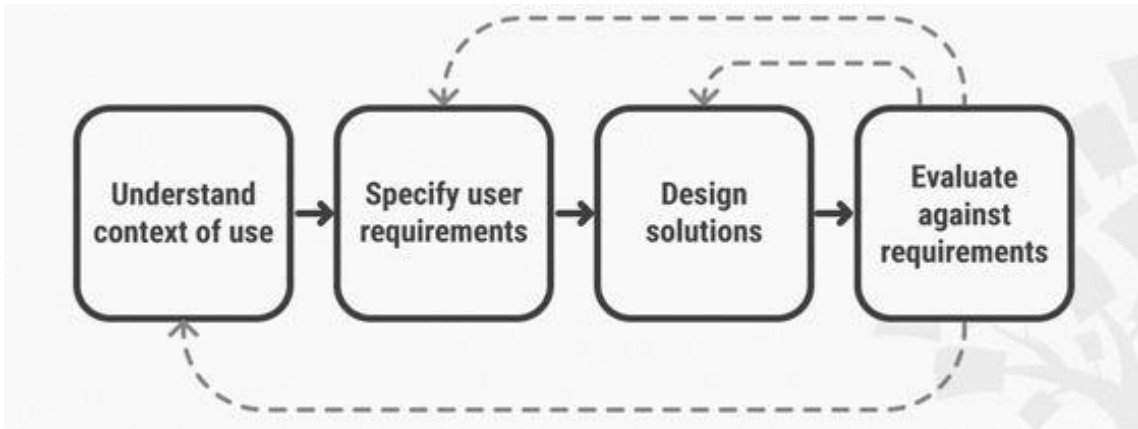


Figure 4.3.1 : Figure of the Basic Structure of User Experience.

4.4 Database Design

Database design is the organization of information in accordance to a database model. The designer determines what data should be saved and how the fact elements interrelate. With the information, they can begin to fit the records to database model. Database management gadget manages the data accordingly.

The following figure 4.4.1 shows the database of user registration List.

id	email	password	type
29	admin@gmail.com	12345	Admin
47	t1@gmail.com	12345	Teacher
48	t2@gmail.com	12345	Teacher
49	t3@gmail.com	12345	Teacher
50	t4@gmail.com	12345	Teacher
51	t5@gmail.com	12345	Teacher
52	t6@gmail.com	12345	Teacher
53	std1@gmail.com	12345	Student
54	dad1@gmail.com	12345	Parents
55	std2@gmail.com	12345	Student
56	dad2@gmail.com	12345	Parents
57	std3@gmail.com	12345	Student
58	dad3@gmail.com	12345	Parents
59	std4@gmail.com	12345	Student
61	std4@gmail.com	12345	Student

Figure 4.4.1 : Database of user registration List

The following figure 4.4.2 shows the database of student registration list.

id	index_number	full_name	l_name	gender	address	phone	email	image_name	b_date
11	1	Rahima	Rahima-01	Female	dhaka	111-111-1112	std1@gmail.com	uploads/20171125093359.png	2010-01-01
12	2	karim	karim-02	Male	Dhaka	017-025-2222	std2@gmail.com	uploads/20171125104521.png	2010-01-02
13	3	Asma katun	Asma-03	Female	Dhaka	(333) 333-3333	std3@gmail.com	uploads/20171125091459.png	2010-01-03
19	4	Mahura	Mahira-04	Female	Dhaka	(444) 444-4444	std4@gmail.com	uploads/20171125091723.png	2010-01-04
20	5	Sagor jaman	Sagor-05	Male	Dhaka	455-455-4555	std5@gmail.com	uploads/2018024042603.jpg	0000-00-00
21	6	sayem	sayem-06	Male	Dhaka	017-017-1717	std6@gmail.com	uploads/2021051084230.png	2015-01-25
22	7	Miaraj	Miaraj-07	Male	Dhaka	016-841-8787	std7@gmail.com	uploads/2021051084922.png	2015-02-14
23	8	tarek	tarek-08	Male	Dhaka	012-158-8989	std8@gmail.com	uploads/2021051090239.png	2014-01-02
24	9	anika	anika-09	Female	Dhaka	012-541-8484	std9@gmail.com	uploads/2021051090716.png	2014-03-05
25	10	monika	monika-10	Female	Dhaka	014-521-8787	std10@gmail.com	uploads/2021051091120.png	2014-05-03
26	11	Rakib	Rakib-11	Male	Dhaka	0170181234	std11@gmail.com	uploads/2021051091512.png	2014-10-09
27	12	Akib	Akib-12	Male	Dhaka	0171234578	std12@gmail.com	uploads/2021051091728.png	2015-01-12
28	13	Foisal	Foisal-13	Male	Dhaka	017-123-4125	std13@gmail.com	uploads/2021051091915.png	2015-03-14
29	14	Rana	Rana-14	Male	Dhaka	017-238-7894	std14@gmail.com	uploads/2021051092052.png	2015-01-02

Figure 4.4.2 : Database of student registration list.

The following figure 4.4.3 shows the database of teacher registration list.

id	full_name	l_name	gender	address	phone	email	image_name	index_number	reg_date
10	Ali haider	Ali haider-202101	Male	Dhaka	017-111-1111	t1@gmail.com	uploads/20171124010228.png	202101	2017-11-24
11	Maria Jannat	Maria Jannat-202102	Female	uttara	012-222-2222	l2@gmail.com	uploads/20171124010308.png	202102	2017-11-24
12	esita khan	esita Khan-202103	Female	School	013-333-3333	l3@gmail.com	uploads/20171124010354.png	202103	2017-11-24
13	AH Imraz	AH Imraz-202104	Male	School	444-444-4444	l4@gmail.com	uploads/20171124010530.png	202104	2017-11-24
14	Fahmid Hasan	Fahmid Hasan-202105	Male	School	555-555-5555	l5@gmail.com	uploads/20171124010613.png	202105	2017-11-24
15	Rakibul Islam	Rakibul Islam-202106	Male	School	666-666-6666	l6@gmail.com	uploads/20171124010754.png	202106	2017-11-24
17	Tarek Mia	Tarek Mia-202107	Male	Dhaka	017-221-1212	l7@gmail.com	uploads/20210426080855.png	202107	2021-04-26
18	Anas Mubassir	Anas Mubassir-202108	Male	Dhaka	018-524-2362	l8@gmail.com	uploads/20210426081041.jpg	202108	2021-04-26
19	K.m Mustakim	K.m Mustakim-202109	Male	Dhaka	013-521-8124	l9@gmail.com	uploads/20210426081145.png	202109	2021-04-26
20	Rishad Chowdhury	Rishad Chowdhury-202110	Male	Dhaka	015-512-5555	l10@gmail.com	uploads/20210426081304.png	202110	2021-04-26

Figure 4.4.3 : Database of teacher registration list.

The following figure 4.4.4 shows the Database of Student Attendance list

The screenshot shows the phpMyAdmin interface for the 'student_attendance' table. The table contains 15 records with the following columns: id, index_number, date, month, year, time, _status1, and _status2.

id	index_number	date	month	year	time	_status1	_status2
1	11	2017-11-25	November	2017	11:30:59	intime	Present
2	11	2021-01-06	January	2021	10:02:18	intime	Present
3	11	2021-04-26	April	2021	08:28:25	intime	Present
4	14	2021-04-26	April	2021	08:28:50	intime	Present
5	2	2021-04-30	April	2021	04:17:30	intime	Present
6	3	2021-04-30	April	2021	07:02:23	intime	Present
7	1	2021-04-30	April	2021	07:09:47	intime	Present
8	2	2021-04-30	April	2021	07:09:52	outtime	Present
9	3	2021-04-30	April	2021	07:09:57	outtime	Present
10	4	2021-04-30	April	2021	07:10:01	intime	Present
11	6	2021-05-01	May	2021	10:55:26	intime	Present
12	7	2021-05-01	May	2021	10:55:36	intime	Present
13	8	2021-05-01	May	2021	10:55:40	intime	Present
14	9	2021-05-01	May	2021	10:55:44	intime	Present
15	10	2021-05-01	May	2021	10:55:49	intime	Present

Figure 4.4.4 : Database of Student Attendance list.

The following figure 4.4.5 shows the Database of student Class Timetable list

The screenshot shows the phpMyAdmin interface for the 'timetable' table. The table contains 15 records with the following columns: id, grade_id, day, subject_id, teacher_id, classroom_id, start_time, and end_time.

id	grade_id	day	subject_id	teacher_id	classroom_id	start_time	end_time
42	11	Sunday	15	10	18	8.00	9.00
54	11	Sunday	17	12	18	9.00	10.00
55	11	Monday	15	10	18	9.00	10.00
56	11	Tuesday	17	12	18	9.00	10.00
57	11	Wednesday	15	10	18	9.00	10.00
58	11	Thursday	17	11	18	9.00	10.00
60	11	Sunday	19	12	18	10.00	11.00
61	11	Monday	19	12	18	10.00	11.00
62	11	Tuesday	19	12	18	10.00	11.00
63	11	Wednesday	18	13	18	10.00	11.00
64	11	Thursday	19	12	18	10.00	11.00
82	11	Monday	17	11	18	8.00	9.00
83	11	Tuesday	15	10	18	8.00	9.00
84	11	Wednesday	17	11	18	8.00	9.00
86	11	Saturday	17	11	18	8.00	9.00

Figure 4.4.5: Database of student Class Timetable list.

The following figure 4.4.6 shows the Database of student payment history list.

	id	index_number	grade_id	subject_id	teacher_id	subject_fee	subtotal	status	month	year	date	invoice_number
<input type="checkbox"/>	582	11	11	15	10	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
<input type="checkbox"/>	583	11	11	16	11	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
<input type="checkbox"/>	584	11	11	17	12	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
<input type="checkbox"/>	585	11	11	18	13	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
<input type="checkbox"/>	586	11	11	19	14	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
<input type="checkbox"/>	587	11	11	20	15	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
<input type="checkbox"/>	588	12	11	15	10	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227
<input type="checkbox"/>	589	12	11	16	11	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227
<input type="checkbox"/>	590	12	11	17	12	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227
<input type="checkbox"/>	591	12	11	18	13	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227
<input type="checkbox"/>	592	12	11	19	14	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227
<input type="checkbox"/>	593	12	11	20	15	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227

Figure 4.4.6: Database of student payment history list.

CHAPTER 5

IMPLEMENTATION & TESTING

5.1 Introduction

Implementation is a very essential thing for a project. Implementation is the action that have to observe any preliminary thinking for something to happen. For an implementation process to be successful many obligations, need to be done in sequence. When a project is completed then there must be some scope of implementation. Today we tried challenging to construct up the application and partially we succeeded. But in the future, we additionally have a design to build the app more extensively. Testing also performs a integral characteristic in software program development. If we don't take a seem at the matters then we cannot get real-life problems. So for developing our software both sectors are needed.

5.2 Implementation of database design

The following Table 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5 and 5.2.6 show the Data Set.

5.2.1 Database

id	email	password	type
29	admin@gmail.com	12345	Admin
47	t1@gmail.com	12345	Teacher
48	t2@gmail.com	12345	Teacher
49	t3@gmail.com	12345	Teacher
50	t4@gmail.com	12345	Teacher
51	t5@gmail.com	12345	Teacher
52	t6@gmail.com	12345	Teacher
53	std1@gmail.com	12345	Student
54	dad1@gmail.com	12345	Parents
55	std2@gmail.com	12345	Student
56	dad2@gmail.com	12345	Parents
57	std3@gmail.com	12345	Student
58	dad3@gmail.com	12345	Parents
59	std4@gmail.com	12345	Student
61	std4@gmail.com	12345	Student

Table 5.2.1: Data Set of user registration List

id	index_number	full_name	i_name	gender	address	phone	email	image_name	b_date	_status
11	1	Rahima	Rahima-01	Female	dhaka	111-111-1112	std1@gmail.com	uploads/20171125093359.png	2010-01-01	
12	2	karim	karim-02	Male	Dhaka	017-025-2222	std2@gmail.com	uploads/20171125104521.png	2010-01-02	
13	3	Asma katun	Asma-03	Female	Dhaka	(333) 333-3333	std3@gmail.com	uploads/20171125091459.png	2010-01-03	
19	4	Mahaira	Mahira-04	Female	Dhaka	(444) 444-4444	std4@gmail.com	uploads/20171125091723.png	2010-01-04	
20	5	Sagor jaman	Sagor-05	Male	Dhaka	455-455-4555	std5@gmail.com	uploads/2018024042603.jpg	0000-00-00	

Table 5.2.2: Data Set of student registration list.

id	full_name	i_name	gender	address	phone	email	image_name	index_number	reg_date
10	Ali haider	Ali haider-2021001	Male	Dhaka	017-111-1111	t1@gmail.com	uploads/20171124010228.png	1	2017-11-24
11	Maria Jannat	Maria Jannat-2021002	Female	uttara	012-222-2222	t2@gmail.com	uploads/20171124010308.png	2	2017-11-24
12	esita khan	esita khan-2021003	Female	School	013-333-3333	t3@gmail.com	uploads/20171124010354.png	3	2017-11-24
13	AH Imraz	AH Imraz-2021004	Male	School	444-444-4444	t4@gmail.com	uploads/20171124010530.png	4	2017-11-24
14	Fahmid Hasan	Fahmid Hasan-2021005	Male	School	555-555-5555	t5@gmail.com	uploads/20171124010613.png	5	2017-11-24
15	Rakibul Islam	Rakibul Islam-2021006	Male	School	666-666-6666	t6@gmail.com	uploads/20171124010754.png	6	2017-11-24
17	Tarek Mia	Tarek Mia-2021007	Male	Dhaka	017-221-1212	t7@gmail.com	uploads/20210426080855.png	2021007	2021-04-26
18	Anas Mubassir	Anas Mubassir-2021008	Male	Dhaka	018-524-2362	t8@gmail.com	uploads/20210426081041.jpg	2021008	2021-04-26
19	K.m Mustakim	K.m Mustakim-2021009	Male	Dhaka	013-521-8124	t9@gmail.com	uploads/20210426081145.png	2021009	2021-04-26
20	Rishad Chowdhury	Rishad Chowdhury-2021010	Male	Dhaka	015-512-5555	t10@gmail.com	uploads/20210426081304.png	2021010	2021-04-26
21	Monira katun	Monira-2021010	Female	Dhaka	017-444-8888	t11@gmail.com	uploads/20210428062103.png	2021011	2021-04-28
22	Sazzad hossain	Sazzad hossain-2021012	Male	Dhaka	017-555-9999	t12@gmail.com	uploads/20210428062210.png	2021012	2021-04-28
23	ssakib hasan	ssakib hasan-2012013	Male	Dhaka	016-888-7777	t13@gmail.com	uploads/20210428062315.png	2012013	2021-04-28
24	Mridul Hasan	Mridul Hasan-2021014	Male	Dhaka	018-444-8747	t14@gmail.com	uploads/20210428062444.png	2021014	2021-04-28
25	Anisur rahman	Anisur rahman-2021015	Male	Dhaka	017-888-3333	t15@gmail.com	uploads/20210428062556.png	2021015	2021-04-28

Table 5.2.3: Data Set of teacher registration list.

id	index_number	date	month	year	time	_status1	_status2
1	11	2017-11-25	November	2017	11:30:59	intime	Present
2	11	2021-01-06	January	2021	10:02:18	intime	Present
3	11	2021-04-26	April	2021	08:28:25	intime	Present
4	14	2021-04-26	April	2021	08:28:50	intime	Present

Table 5.2.4: Data Set of Student Attendance list.

id	grade_id	day	subject_id	teacher_id	classroom_id	start_time	end_time
42	11	Sunday	15	10	18	7.00	8.00
43	11	Monday	15	10	18	7.00	8.00
44	11	Tuesday	15	10	18	7.00	8.00
45	11	Wednesday	15	10	18	7.00	8.00
46	11	Thursday	15	10	18	7.00	8.00
47	11	Friday	15	10	18	7.00	8.00
48	11	Sunday	16	11	18	8.00	9.00
49	11	Monday	16	11	18	8.00	9.00
50	11	Tuesday	16	11	18	8.00	9.00
51	11	Wednesday	16	11	18	8.00	9.00
52	11	Thursday	16	11	19	8.00	9.00
53	11	Friday	16	11	18	8.00	9.00
54	11	Sunday	17	12	18	9.00	10.00
55	11	Monday	17	12	18	9.00	10.00
56	11	Tuesday	17	12	18	9.00	10.00

Table 5.2.5: Data Set of student Class Timetable list.

id	index_number	grade_id	subject_id	teacher_id	subject_fee	subtotal	_status	month	year	date	invoice_number
582	11	11	15	10	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
583	11	11	16	11	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
584	11	11	17	12	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
585	11	11	18	13	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
586	11	11	19	14	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
587	11	11	20	15	250.00	250.00	Monthly Fee	November	2017	2017-11-24	1
588	12	11	15	10	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227
589	12	11	16	11	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227
590	12	11	17	12	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227
591	12	11	18	13	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227
592	12	11	19	14	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227
593	12	11	20	15	250.00	250.00	Monthly Fee	November	2017	2017-11-24	227

Table 5.2.6: Data Set of student payment history list.

5.2.2 Security Testing

Security is the most concerning subject matter in the project. As there are admin, Teacher, student & parents they all have some personal facts and their safety is very important. If some thing goes incorrect then all the information will vanish. So we have to be very careful about the safety system. We use flutter and farewell for our project and for that every and each data is secured here. If anyone tries to decompile it even he will now now not get any chance to destroy this.

5.2.3 System Testing

System testing is a kind of testing that validates a whole and entirely built-in system. So computing device testing is very vital for each project. System testing checks how aspects are interacting with one some different and with the complete system. Like we are getting the actual output what we predicted however it's not working for Web Application. On the other hand, it may additionally appear unique when we attempt to install it. By system testing, we try to solve them.

5.3 Implementation of Front-end Testing

To be honest when we get the idea about “Smart School Assistant System” we think we will not face any hard problems while developing that. After that, we started out our project, and step by using step we have been developing it with different types of testing. That was a plus element for us actually. At every and each point of any error, we tried to repair it. We asked for help from experts, on the web and additionally from our teachers. As testing and implementation depend on every different so for an correct result we tried our best. When we thought that a specific phase of our application is giving the actual out what is expected then we moved on to the subsequent part.

5.4 Testing Implementation

Actually, software testing is a kind of technique whether or not the output is matching our expectations and to ensure that the application is error-free. So testing performs a fundamental position in the project to get the favored result. There are many types of testing for different purposes however in our project verification and validation testing is focused. Verification checking out helps us to construct the application according to the requirements and design. Validation testing helps us to make sure things about our users. We additionally have to check every and every information for the accuracy and satisfaction of the user.

CHAPTER 6

IMPACT ON SOCIETY, ENVIROMENT AND SUSTAINABILITY

6.1 Impact on society

Now a days the entirety round us is upgrading. Day with the useful resource of day the use of technological know-how is growing rapidly. People prefer to manipulate their troubles and works with the assist of technology. People life will be more easier. By the usage of the app anybody can get the scientific updates in their hand.

6.2 Impact on Environment

The impact of this project in surroundings will be suitable due to the fact this project will limit the use of paper. Usually we use paper to write down information. Through this software we can save documents in database and people get information by means of smart devices. As a end result pressure on paper will reduce. We comprehend that paper made from tree. If use of paper will be diminished then deforestation fee will be low.

6.3 Ethical Aspects

After developing any application there are some moral aspects. Smart School Assistant System has additionally some moral aspects like respect for autonomy, non-maleficence, beneficence, and justice. It is based totally definitely on a set of values that expert can refer to in the case of any confusion and conflict.

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1 Discussion and Conclusion

In this technology of modern-day science world is in our hand. In this modern lifestyles the whole lot has been digitalized. Web particularly based software is getting well-known day with the aid of day. Now a day people select facts through technology devices.

We are making an attempt to help people to make their life less complicated through this project. We practice our Ideas and knowledge to complete this project.

Technology is a very smart way to get want information. Day by means of day human requirements of information is getting increased. With the assist of technology it is viable to meet the quest desire records of human. So we developed our web application in demand of tomorrow's world.

7.2 Scope for Further Developments

In future we are going to develop this project. Also we will strive to add more features, try to cover a massive area, some more facilities for the normal user, More security choices etc. in this application according to demand, In future development we will supply additionally android application service.

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