

DEVELOPMENT OF WEB BASED APPLICATION-E LEARNING PLATFORM

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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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APPROVAL

This Project titled “**DEVELOPMENT OF WEB BASED APPLICATION-E LEARNING PLATFORM**”, submitted by Mahady Hasan, ID No: 151-15-5404, Pritom Kumar Kundu, ID No: 151-15-5003, Md. Tajul Islam Imran, ID No: 151-15-5411, Nishana Yeasmeen Reety, ID No: 133-15-3016 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 (BSc) and approved as to its style and contents. The presentation has been held on 11 DECEMBER 2018

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We hereby declare that this project has been done by us under the supervision of **Shah Md Tanvir Siddiquee, Senior 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 an award of any degree or diploma.

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ABSTRACT

This project is intended to develop a web-based application online which will provide easier communication between teacher and student. The proposed project is a web-based application which tries to help the student to learn ICT. In our project, there are two main actors so we defined their activity respectively. First of all, the user has to login in our system. Then the user fills the form as a student or teacher. Admin can be approved or cancel the user request if they are not fulfilling the information. Super Admin can check the profile, approve or cancel the request and Admin see that which account is approved by which Admin. After approving the account, a student can see the facilities. They can see, read, their profile with a personal photo. They can see the lecture material of ICT according to their class. Admin can also post the notice. After the implementation of all functions, the system is tested in different stages and it works successfully as a prototype.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

As a human being, we have some basic demand, accommodation is one of them. Nowadays everyone cannot effort to learn their own satisfaction. Since the 19th century [1], students using learning system around the world. The purpose of our project to connecting Student and Teacher and increasing ICT learning system facilities through the web. The main goal of our project that we create a website that creates a communication among teacher and students for learning purpose. In this system first student easily create account and login in our system then he registered as a student or a teacher through email and Phone number(optional) which verifying by our admin then student/teacher are capable to login in this system and also access classroom facilities of this system. This website developed by Google based website is an open source project, it is more popular and easily developed. In modern times it is very beneficial for users.

1.2 Motivation

In developed countries, we believe that there is a demand for an online application system that there is no proper teaching system in Bangladesh for learning ICT course for class (vi-xii) and study materials within all over Bangladesh. Most of the teacher of ICT has no proper official background of ICT. Even, they can't provide long time ICT learning service. Most of them take ICT course for one year.

Over the past few years, the number of digital devices users like computers and smartphone user has become a lot more popular. And, if such a system can be setup students can easily learn ICT course and we can easily help them with the proper guideline which is available on our website.

1.3 Objective

1. Posted by Teacher/students requirement materials.
2. Guideline for class (vi-xii) students.
3. Registration system.
4. Add image for learning easily.
5. Create Class Test and make result sheet.
6. Specialist class teacher for every class.
7. Facebook/Email Id.
8. Teacher's qualification.

1.4 Expected Outcome

The expected outcome from this proposed project will be:

By using this Website anybody can find his/her study materials. The most important thing is if anybody wants to learn with entertainment, they have to check the required lessons. In future, the website will automatically inform him.

How the Website will inform?

The Website can inform you by processing your own interest or can inform you also mobile application notification or can inform you also what you search on the website randomly. Here I want to work with some algorithm. Which can inform you easily?

There will be one more interesting part also that is Class Test System. We can add our teachers in this measurement system. The system will take only two information from you that what is the time for class test and Answer. That's it! My web notification will let you remind at the exact CT time.

There will be some more momentous option such as weekly study schedule task, monthly study schedule task etc. Hope the Website will like everyone. The Website will be so futile.

1.5 Report Layout

We have organized our report as follows.

In chapter 2, we introduce the background circumstances of our project. We also briefed about the related work, the scope and challenges of the project and we are doing a comparative study with many other candidate systems. In chapter 3, we specified the requirement project. We defined the business process model, data flow diagram, use case diagram, ER diagram, and design requirements. We also discussed the requirement collection and analysis process. In chapter 4, we specified the front-end and back-end design of the project. In chapter 5, we exhibited the implementation of the whole project and we tested every section of the project whether the application is working as expected. In chapter 6, we designated the conclusion and the scope for further development of the project. At last of all, we give some related reference to ensure that the information in the report is must be correct.

CHAPTER 2

BACKGROUND

2.1 Introduction

We already discuss that why we choose this project, we try to help. We believe that there is a demand for an online application system that there is no proper teaching system in Bangladesh for learning ICT course for class (vi-xii) and study materials within all over Bangladesh. Most of the teacher of ICT has no proper official background of ICT. Even, they can't provide long time ICT learning service. Most of them take ICT course for one year.

Over the past few years, the number of digital devices users like computers and smartphone user has become a lot more popular. And, if such system can be setup students can easily learn ICT course and we can easily help them with the proper guideline which is available in our website Basically we think about all possible user and try to ensure the usability. In this chapter, we discuss all the tasks that we need to concern before taking a step ahead. Here we want to briefly discuss all related works, Comparative Studies, The Scope of the Problem and Challenges.

2.2 Related Work

Already we told that there is some related work that we found there we defined some of them. **GEE Bangladesh** is a web application which is designed to support Students, it allows to

- SSC And HSC ICT Practice Class
- Academic Care

It is a web application which development by Biplob (East Nasirabad, Chittagong) and support provided by GEE IT.

Disadvantages of the existing app

- It must be accessed through a web browser.
- It cannot send push notifications to the user.
- Basically, it stands for IT Support.
- Only restricted to IT Training
- IT Lecture is not well explained.
- A security issue is not addressable.
- No video Lecture for Students.
- No NCTB book provided.

In our proposed application we provide as much as the feature to a user for helping Students and increasing the efficiency of our system.

- It must be accessed through a web browser.
- It cannot send push notifications to the user.
- A security issue is the main purpose so we add registration system.
- Ensure usability that anyone from anywhere uses our application easily.
- Online Learning system facility is available.

So we say that our proposed object is really accurate for now-days and fulfill all possible facilities.

2.3 Feasibility Study

The Feasibility Study is the starter think about that decides if a proposed frameworks venture is in fact, fiscally, and operationally useful. Feasibility Study about is an

examination utilized in estimating the capacity and probability to finish an undertaking effectively including every applicable factor. ... Task supervisors utilize practicality concentrates to decide potential positive and negative results of an undertaking before contributing a lot of time and cash into it. It is likewise useful in perceiving potential income. Another critical object is that it enables organizers to canter around the task and limit the conceivable outcomes. As needs are, a plausibility study can give reasons not to seek after the said undertaking or proposition.

The consequence of practicality think about likewise decides if the answer for the issue ought to be executed.

There are four sorts of Feasibility Study:

- Operational plausibility.
- Specialized plausibility.
- Financial plausibility.
- Timetable plausibility.

An attainability study ought to furnish administration with enough data to choose:

- Whether the task should be possible
- Whether the last item will profit its proposed clients and association
- What are the choices among which an answer will be picked
- Is there a favored option

We have checked every one of the conditions that are expressed above and gone to the choice that, it's a hundred percent attainable task as well as a requesting one.

2.3.1: Technical feasibility study

Technical feasibility think about is the total investigation of the task as far as info, forms, yield, fields, projects, and systems. It is an exceptionally powerful apparatus for long-haul arranging and investigating. The specialized possibility study should most basically bolster the budgetary data of an association. It is characterized as the attainability that is worried about determining hardware and programming that will effectively fulfill the client necessity. It compasses the specialized needs of the framework. Technical feasibility and Cost Analysis is performed to decide the potential monetary practicality of a procedure or innovation and recognizes which advancements have the best probability of financial achievement. Results from innovation achievability examination endeavors give the contribution to adjusted portfolio advancement and innovation approval designs. The financial aggressiveness of an innovation is surveyed by assessing its execution costs for a given procedure contrasted with the expenses acquired by current innovation [4].

When composing a practicality report, the accompanying ought to be taken to thought:

- A brief portrayal of the business to assess more possible components which could impact the audit
- The part of the business being investigated
- The human and money related variable

To fulfill the essentials of this project, it requires great learning of web improvement. As we have enough learning on PHP and its structures, HTML, CSS, Bootstrap and JQuery, We were exceptionally certain to fulfill us and everybody.

2.3.2 Operational feasibility study

Operational feasibility is the proportion of how well a proposed framework tackles the issues and exploits the open doors distinguished amid extension definition and how it fulfills the necessities recognized in the prerequisites investigation period of framework improvement. Operational feasibility is as imperative as specialized plausibility (or some other sort of achievability so far as that is concerned), but then it very well may be the primary thing to get brushed far from anyone's regular field of vision. The discussion changes and that 'insightful framework' everybody was examining is changed once again

into a negligible 'thing': a deliverable to drop into the association. We'll discover later in the event that we can get it going; on the off chance that we can mesh it into offices and hearts as effectively as we can connect it to programming stages [3].

2.3.3 Economical feasibility study

Economical feasibility could likewise be alluded to as cost/advantage examination. It is the most much of the time utilized technique for assessing the viability of another framework. In the monetary investigation, the technique is to decide the advantages and reserve funds that are normal from an applicant framework and contrast them and costs. The expert must gauge costs in every one of the accompanying zones:

- People, including IT staff and clients
- Hardware and gear
- Software, incorporating into house improvement and also buys from merchants.
- Licenses and expenses.
- Facility costs

Now, the anticipated expenses may be an unpleasant gauge. The correct expenses are not required to decide monetary plausibility. It is just required to decide whether it is possible that the venture expenses will fall inside the objective spending plan or quantifiable profit.

2.4 Scope of the Problem

We have already seen that some current application already help Students to gain ICT knowledge but those websites do not give any facilities about Proper learning. We ensure it besides great issue that we approved account of any Student & they can get real knowledge, so this problem is solved by our project. After login, any student doing any kind of lecture-based work & can give Quiz immediately so that they can see their improvements easily. We try to our level best that Students get their expected feedback.

2.5 Challenges

There is no work exists without challenge. When we are going to collect data from a different area we find some difficulties because we don't know which developing platform is efficient. We are not able to find this so it's bothering us too much. We competed it by Using Web Developing system. so we have to motivated Students and Inspire teachers to use our system and make understandable that our system is easy and better than others.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Requirement Collection & Analysis

Our system is collected a huge amount of data when any Student register in our system. We gathered data and thought about the data that we collected. Super Admin and admin can access the data and keep eye on the Teacher & Students that if they do any bad work they can easily find out.

3.1.1 for Super Admin

Super Admin can access admin, Teacher, Students information. Super Admin uses this information to develop our system and create our website more useful.

3.1.2 for Admin

Admin can collect Teacher, Students information, current Students and all activities. We use this information to develop our system and create our website more useful.

3.1.3 for Teacher

The Teacher is the most important user of the system. Super admin & Admin should log in to the system to operate. None other than Super admin & Admin can access the full system. Only Super admin & admin will be able to edit, update, add and delete the data from this system and he will have the Teacher Dashboard.

3.1.4 for Student

The student can register him/her by registering process. Every student has different and a unique Id which provided by an administrator. They can analyze information and approved the account for study material access.

3.2 ER Diagram

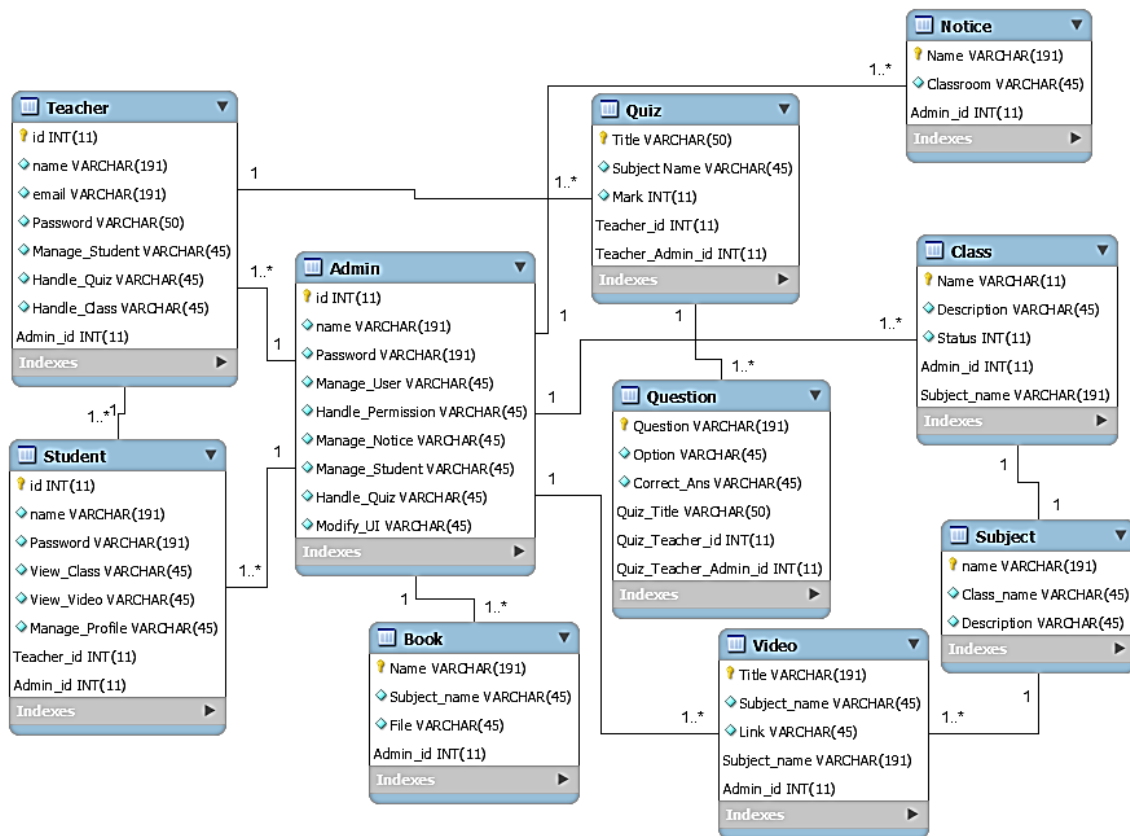


Figure 3.2: ER Diagram

3.3 Use Case Modeling

3.3.1 Use Case (Super Admin Part)

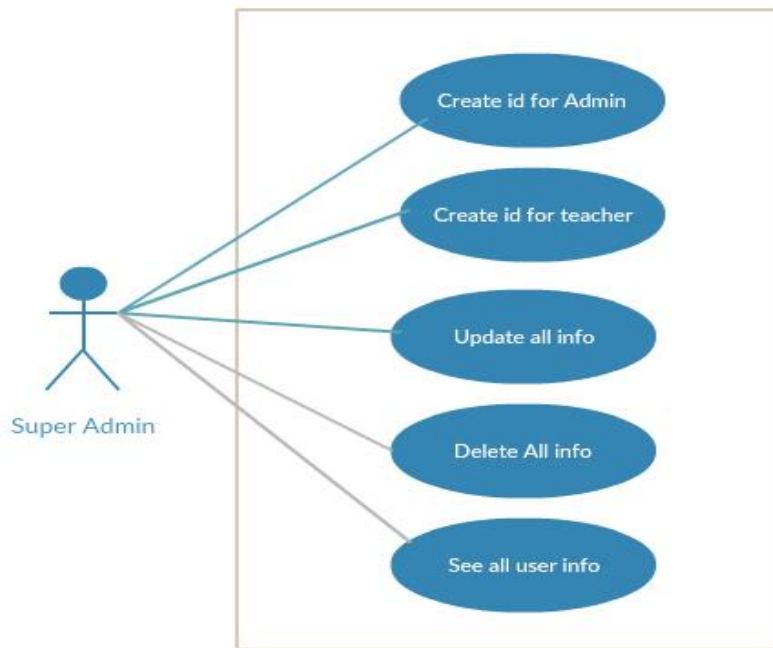


Figure3.3.1: Use case model for Super admin

3.3.2 Use Case (Admin Part)

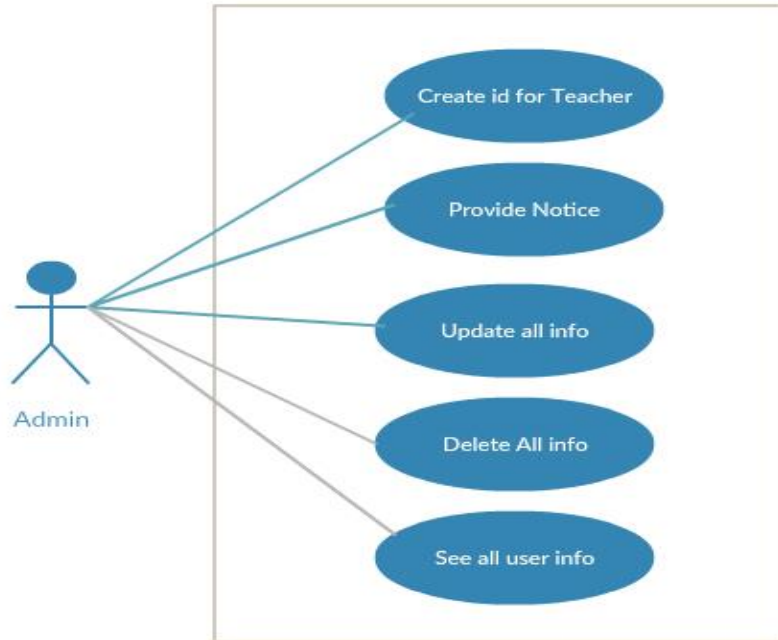


Figure3.3.2: Use case model for admin

3.3.3 Use Case (Teacher Part)

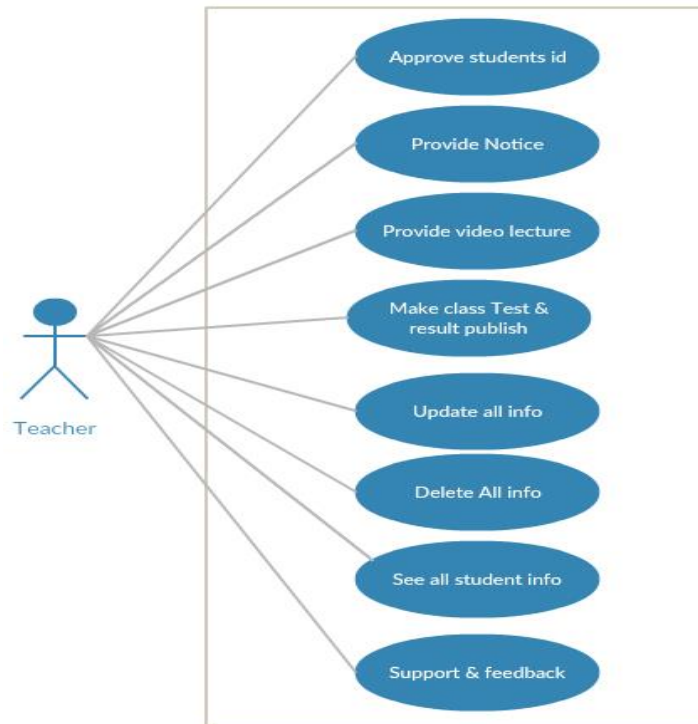


Figure3.3.3: Use case model for Teacher

3.3.4 Use Case (Student Part)

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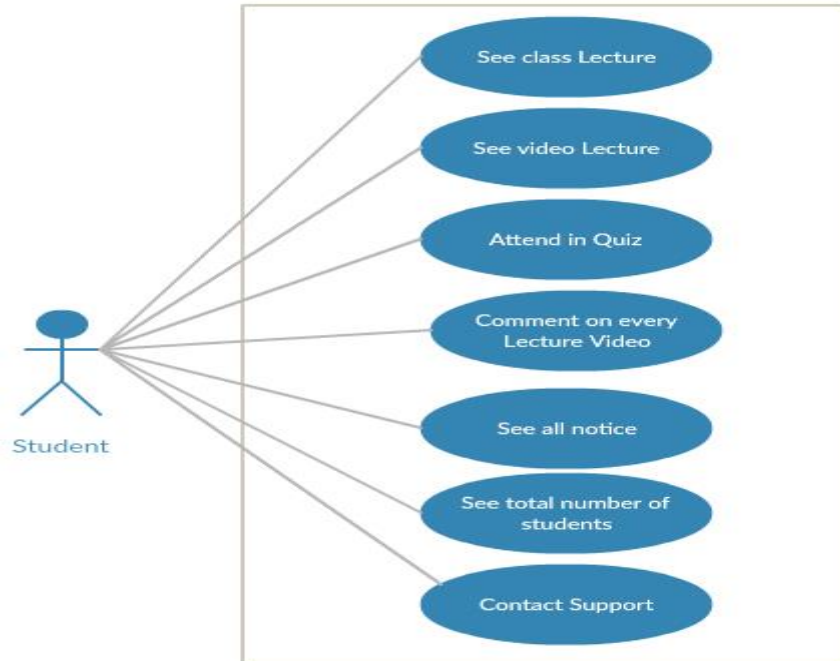


Figure3.3.4: Use case model for Student

3.4 Data Flow Diagram

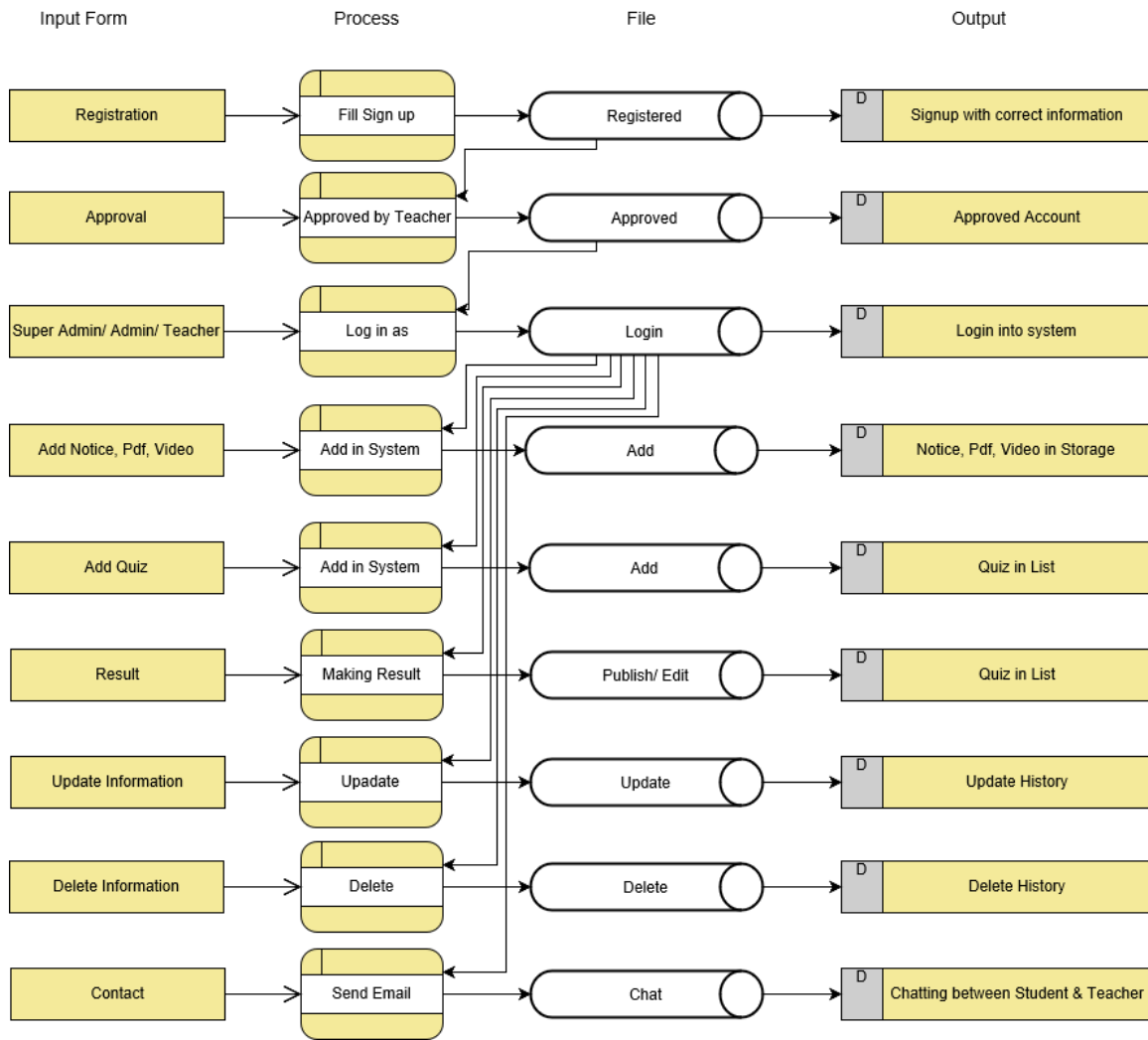


Figure3.4: Data Flow Diagram

3.5 Design Requirements

The dashboard has been utilized to actualize the website pages of the proposed framework. HTML, CSS, JavaScript, JQuery additionally have been utilized to manufacture the website page. Here we present four diverse dashboards for our framework administrator, Teacher, Student, Admin deferentially. Each dashboard has the diverse assignment with various highlights which are planned premise of Bootstrap with HTML, CSS, JavaScript, and JQuery.

CHAPTER 4

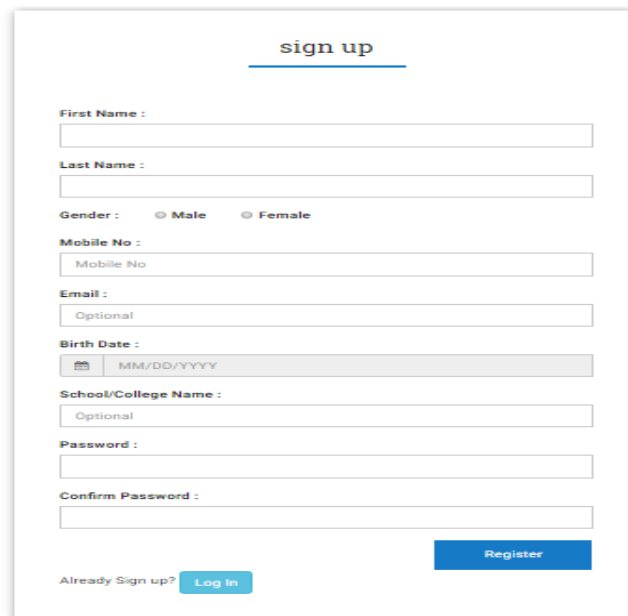
DESIGN SPECIFICATION

In this chapter, we will examine the procedure of the proposed data framework. A data framework (IS) is any composed framework for the gathering, association, stockpiling and correspondence of data.

4.1 Front-end design

Our project front-end has planned by HTML, HTML, which remains for Hypertext Mark-Up Language, is the dialect for depicting organized records and the dialect used to make site pages on the Internet. CSS and Bootstrap system used. Cascading Style Sheets (CSS) is a template dialect utilized for depicting the introduction of a report written in a markup language. Bootstrap contains HTML-and CSS-based outline layouts for typography, frames, catches, route and other interface parts, and in addition discretionary JavaScript augmentations. A few cautions and intuitive assignments are created by JavaScript. Very nearly 35 pages of our undertaking have a substance of front-end. Numerous highlights of a protest arranged dialect and Tools for outline UI are included as an undertaking need.

4.1.1 Fill the Form as Student/ Teacher



The image shows a 'sign up' form with the following fields and options:

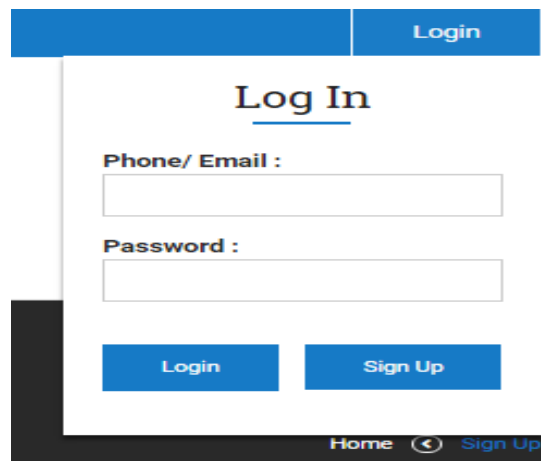
- First Name :** Text input field
- Last Name :** Text input field
- Gender :** Radio buttons for Male and Female
- Mobile No :** Text input field with placeholder 'Mobile No'
- Email :** Text input field with placeholder 'Optional'
- Birth Date :** Date picker with format MM/DD/YYYY
- School/College Name :** Text input field with placeholder 'Optional'
- Password :** Text input field
- Confirm Password :** Text input field

At the bottom right, there is a blue **Register** button. At the bottom left, there is a link: 'Already Sign up? [Log In](#)'.

Figure 4.1: fill the form

4.1.2 Login

In Computer security, a login alludes to the accreditations required to acquire access to a PC framework or other confined zone. In this way, in this framework in other to gain admittance to the backend, the framework requires a client verification (login) for security purposes. The client will embed his username and secret word and afterward, he will go for login. On the off chance that such client exists in the database the framework will give the client access to the framework, if not the framework will demonstrate a mistake message to the client. This implies he can't approach the framework. The figure has appeared underneath in figure 4.1



The screenshot shows a mobile application interface for a login page. At the top, there is a blue header with the word 'Login' in white. Below the header, the title 'Log In' is centered in a large, dark blue font. Underneath the title, there are two input fields: the first is labeled 'Phone/ Email :' and the second is labeled 'Password :'. Below these fields, there are two blue buttons: 'Login' on the left and 'Sign Up' on the right. At the bottom of the form, there are links for 'Home' (with a left arrow icon) and 'Sign Up' (with a right arrow icon).

Figure 4.2: Login

4.1.3 Fill the Form as Teacher

After login to the framework, the client discovers this kind of screen for this they need to fill the shape as the teacher. The circumstance appeared in the figure below:

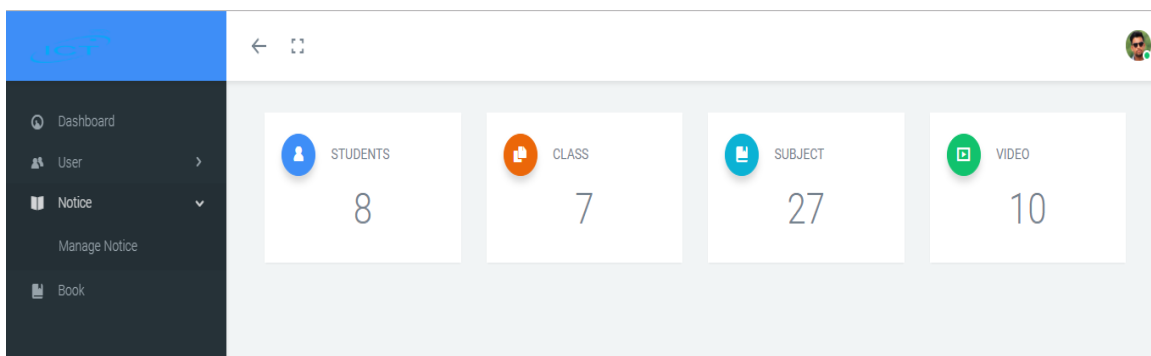


Figure 4.3: After Login

Figure 4.4: Registration Form

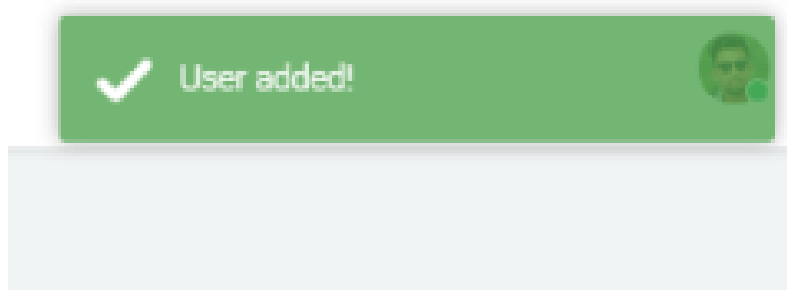


Figure 4.5: After fill the form

4.1.4 Admin Account

An administrator is with everything taken into account any framework. In our framework administrator account is made by administrator themselves and they can do anything that they need with advancement and dashboard also. An administrator can make their record to utilizing the database.

4.2 Back-end Design

Our project back-end has planned by PHP, PHP is a server-side scripting dialect composed fundamentally for web improvement yet additionally utilized as a broadly useful programming dialect. MySQL database has utilized. Right around 45 pages of our undertaking have a substance of back-end implies push PHP. In our task 14 tables made to

oversee information. There are some center tables, a few tables are transitory premise and client information contains by a few tables. PHP has a solid holding with SQL inquiry dialect parsing, every single consistent guidance made by PHP. Client session creation and decimate are overseen by PHP libraries. Information exchange between pages is utilized \$_POST technique the vast majority of the time. We are intrigued to specify some imperative errand done by PHP point to point.

- PHP makes the session for clients and additionally approve client.
- PHP has command over all information exchanging User end to Saver end.
- All Logical attestation created utilizing PHP code
- Loops, If-else, and control explanation done by PHP
- Main calculation wrote in PHP
- Data exchange between pages utilizes the \$_POST technique for PHP

4.2.1: Super Admin Dashboard

Super Admin can see all reports, all record that is being affirmed or dropped, every one of the occupant list, all mortgage holder list, print numerous things that they require. An administrator can control the entire framework.

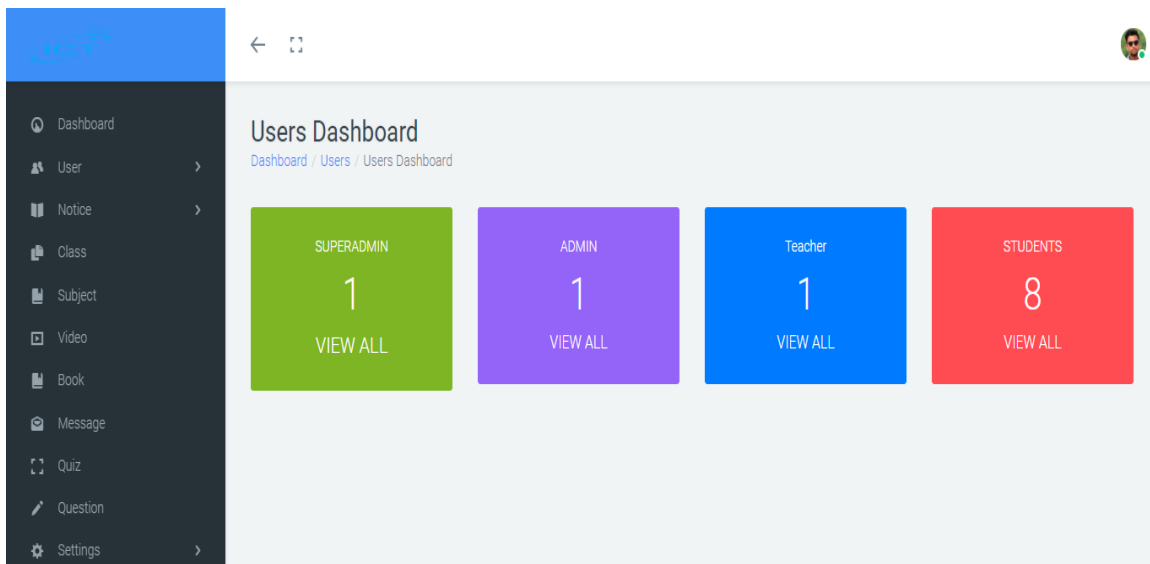


Figure 4.6: Super Admin Dashboard (a)

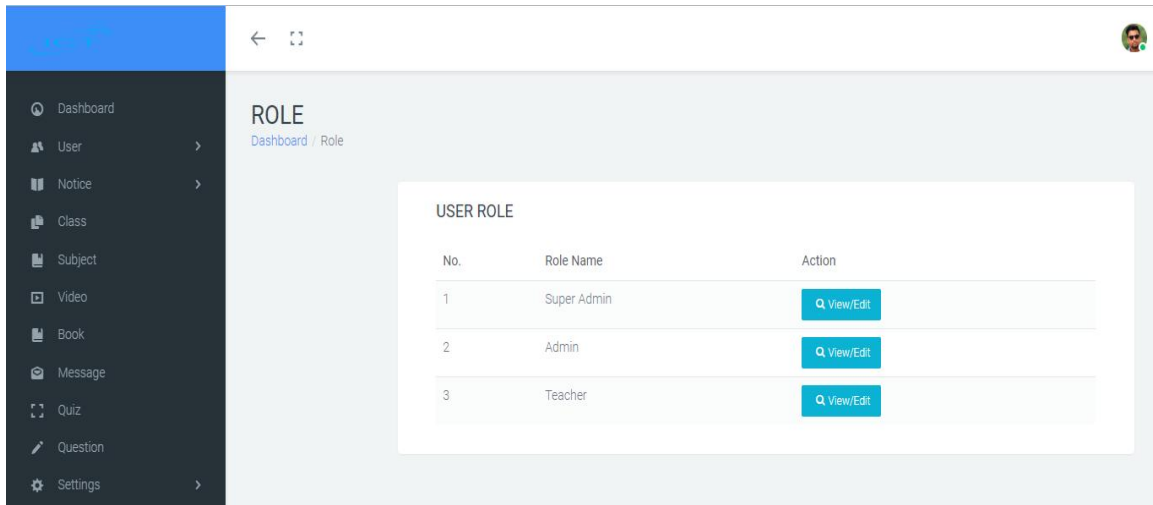
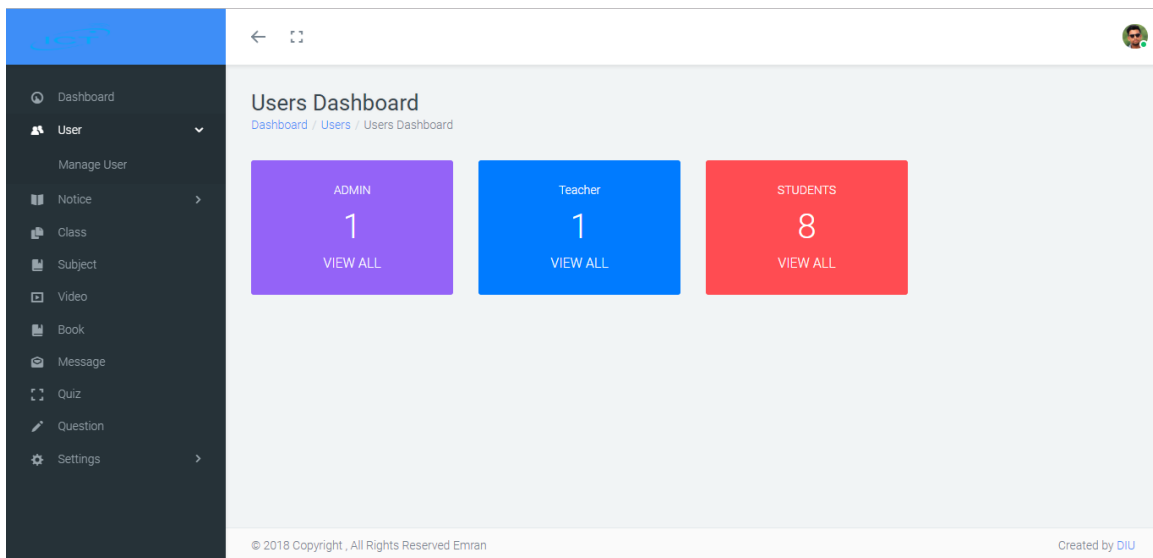


Figure 4.7: Super Admin Dashboard (b).

4.2.2: Admin Dashboard

Admin can see all reports, all accounts of students, teachers.



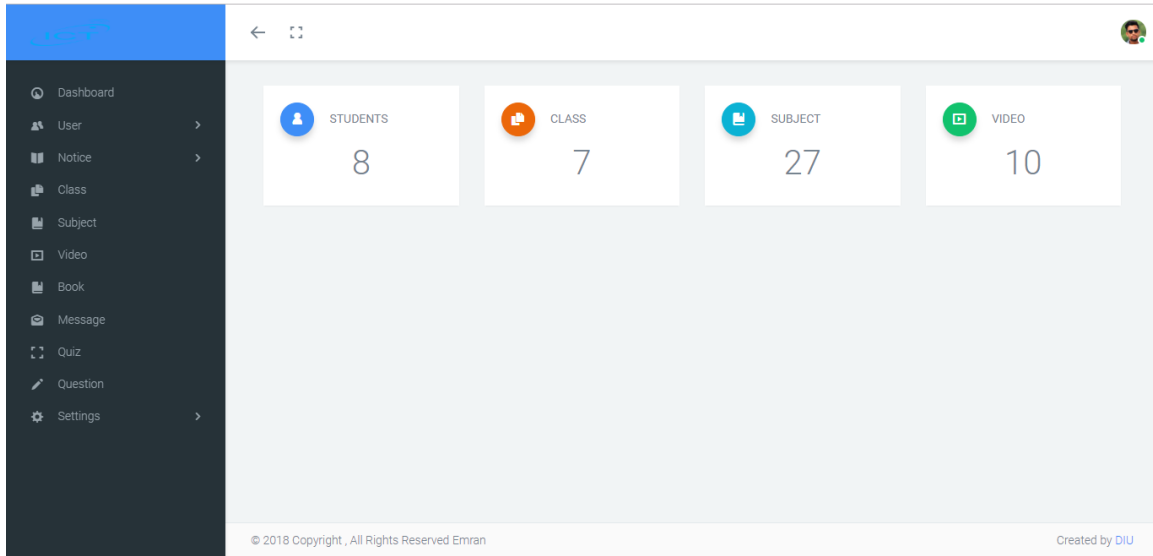


Figure 4.8: Admin Dashboard.

4.2.3 Teacher Dashboard

Admin can see all reports, all accounts of students.

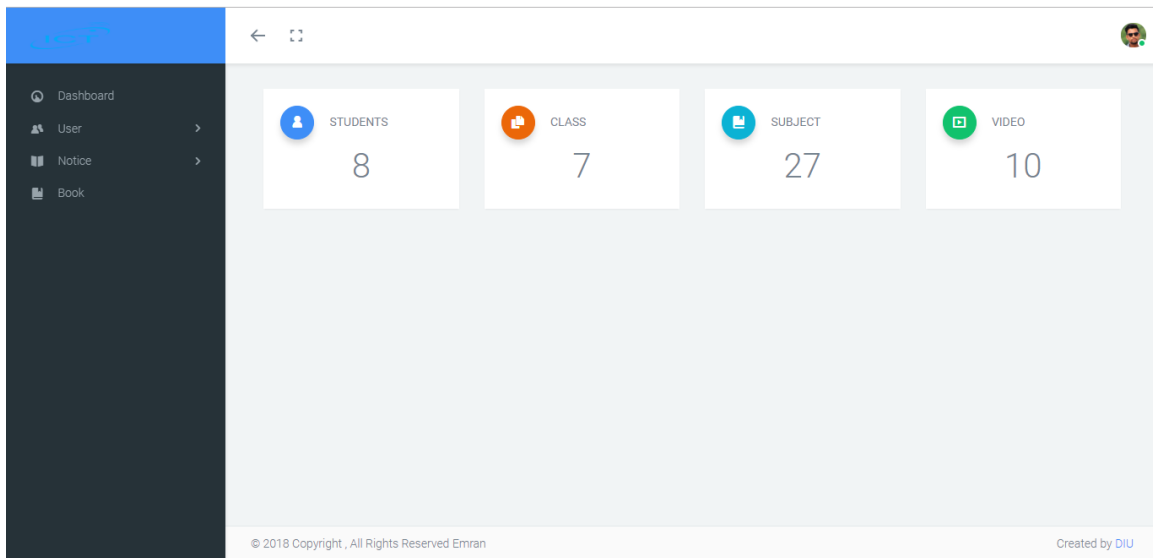


Figure 4.9: Teacher Dashboard.

4.2.4: Student Dashboard

As a student, you log in our system you can find out dashboard like below in Figure below:

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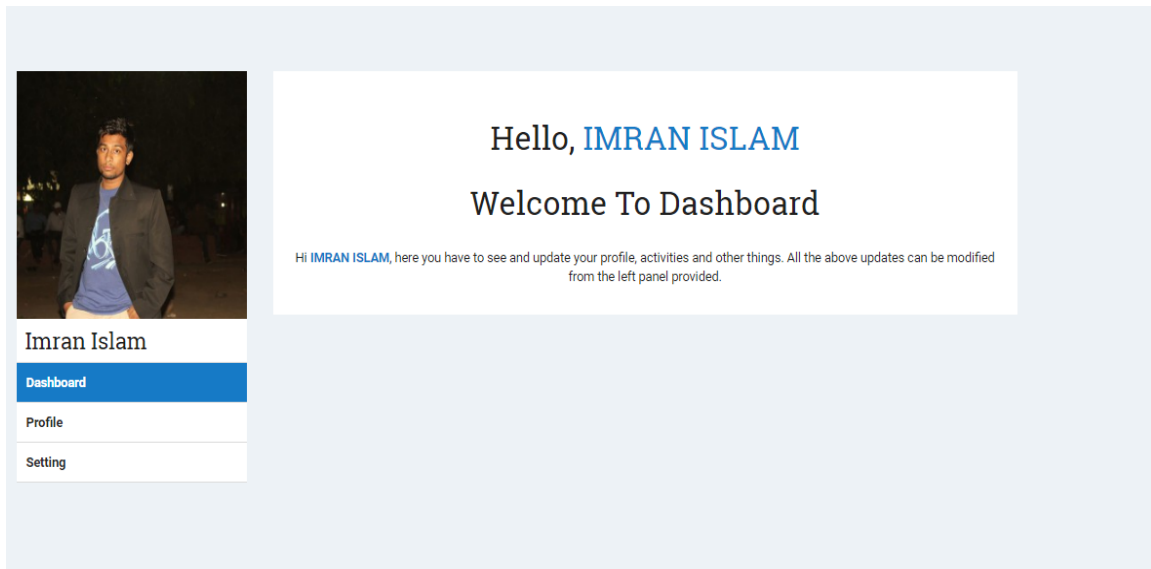


Figure 4.10: Student Dashboard.

4.3 Interaction Design and UX

Interaction design fundamental for any venture what is exceptionally an ideal administer between a framework and client. This is joined plan what will assist a client with interacting with framework effortlessly. It encourages a client to spare their chance. There have a few measurements of a portrayal of a framework or programming to clients what will improve client encounter. For example, Button Labels, Images, Typography, Icons that guide in the client connection.

4.4 Implementation of Requirements

We have to know two kinds of requirements. Such as:

- Hardware requirement.
- Software requirement.

Hardware Requirement:

One database server must be accessible to actualize the framework with the following arrangement.

- PC
- 1 server class mark PC facilitating MySQL
- Database Server

Software Requirement: [6]

Any PC working framework (least refresh 2007)

- Wamp or xampp server [PHP, APACHE, MySQL] introduced
- Laravel v5.2 introduced
- Composer introduced
- Any word processor can be utilized
- Any program

Server:

All the work happens on the server. A particular application, called a web server, will be in charge of speaking with the program. A social database server stores whatever data the application requires. At long last, we require a dialect to specialist asks for between the web server and database server, it will likewise be utilized to perform automatic assignments on the data that comes to and from the web server. Obviously, none of this is conceivable without a working framework. The web server, programming dialect, and database server we utilize must function admirably with the working framework.

There are many web servers out there in the market. To execute exam mechanization framework, it is financially savvy. It is brisk and intense. It might not have each chime and shriek accessible for a social database, yet for most clients, there is the bounty. WAMP or XAMPP server is a mix of PHP, APACHE, and MYSQL server.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

For our Project database is a basic part. We know numerous database administration framework is utilizing around the world. We decide for our undertaking MySQL. MySQL is the world's most well-known open source database. With its demonstrated execution, unwavering quality and usability, MySQL has turned into the main database decision for electronic applications. MySQL is an open-source social database administration framework (RDBMS).

All database related information's are given shortly:

- Database name: ictsms.sql
- 22 tables and each table have multiple columns

We are demonstrating a figure 5.1 which will indicate table name with its motivation and a rundown of pages to which these tables have a place with.

Database usage incorporates the execution of the functionalities of every module and the usage of information reinforcement and reclamation. Here we will accentuation on presenting the usage of information reinforcement. Information reinforcement alludes to a capacity of client information including records, database, and application programs and so on for information recuperation. In this manner, it is basic to give information reinforcement and reclamation instrument to enhance framework security.

Here, in our database 22 tables and every table has multiple columns and every column declared different attribute which is the help to implement our system.

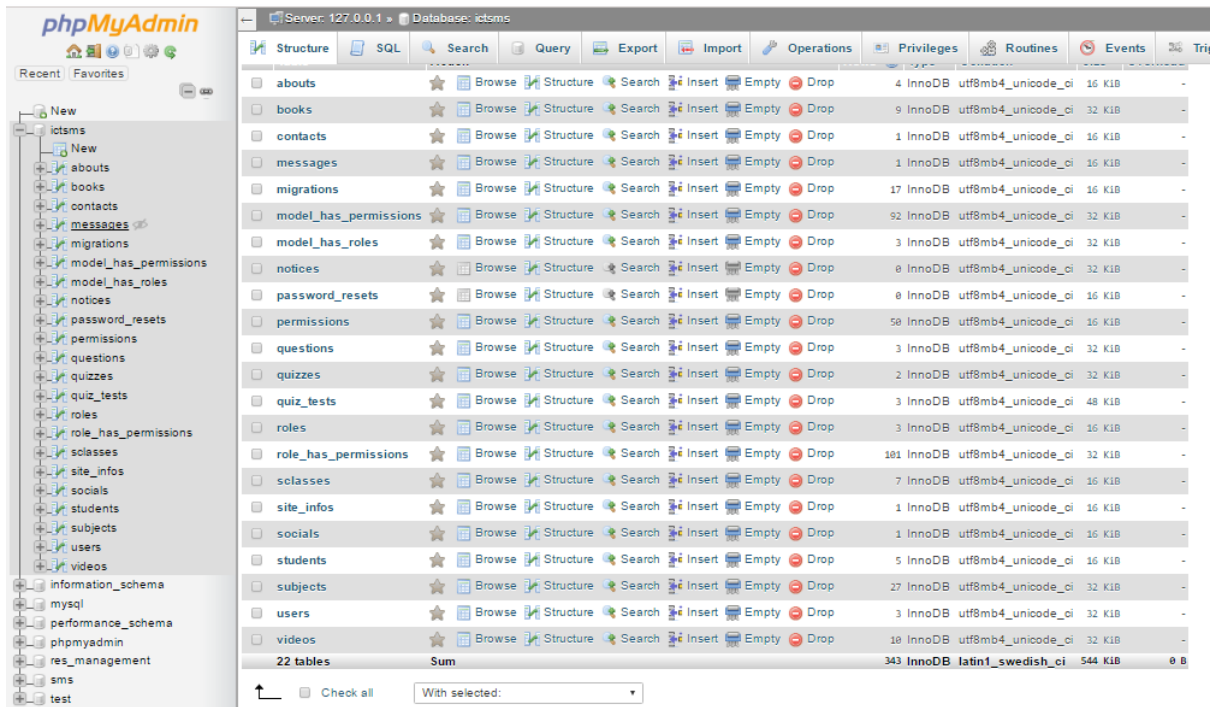


Figure 5.1: Database.

5.2 Implementation of Front-end Design

Super Admin

We already see after login to the system Super admin dashboard (figure 4.7) and Super admin can see the list of Admin, Teacher, and Students. Super admin can make admin, teacher & students. Super Admin can search as the requirement of their necessary. Here given all figure about the feature of Super admin. As a Super admin can see the current number of Teachers, the current number of students, their activities and also check a profile of All User

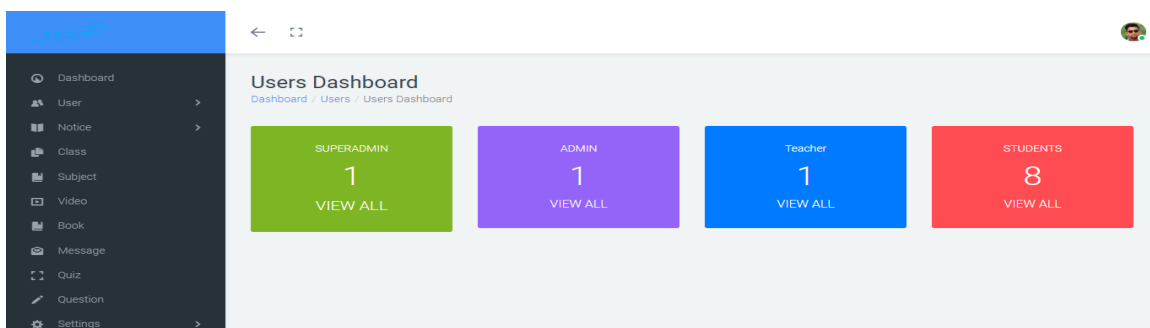


Figure 5.2: Super Admin Dashboard

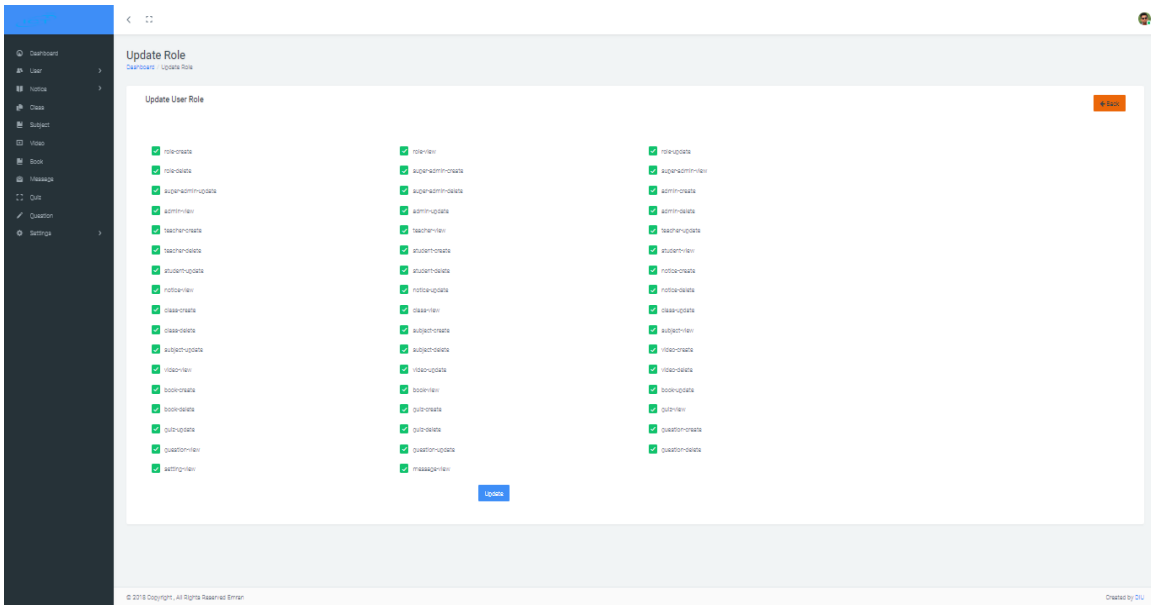


Figure 5.3: Activity Super Admin (1)

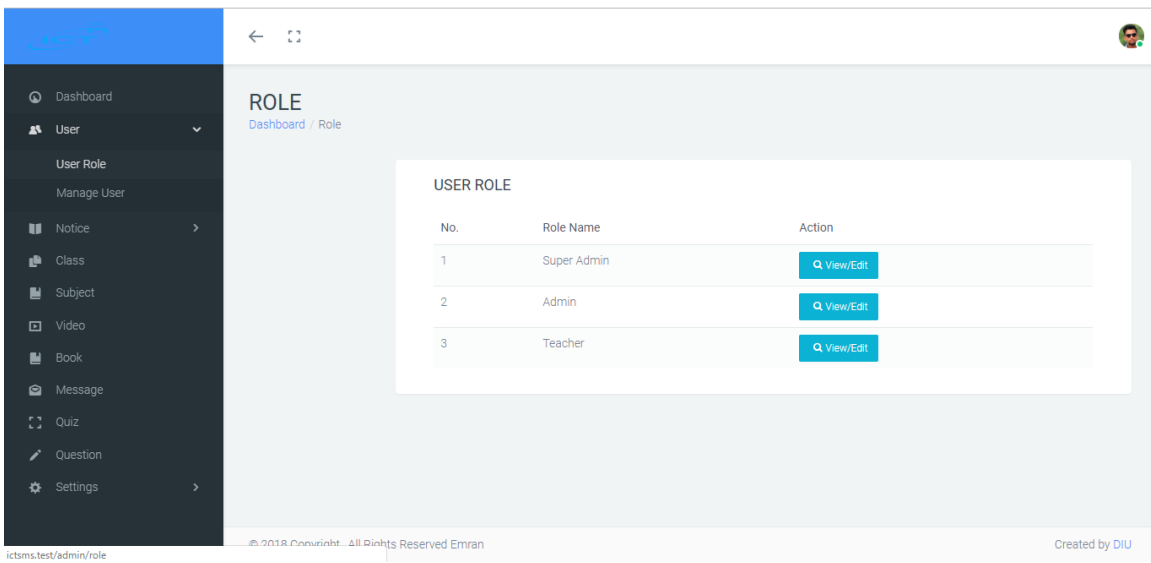


Figure 5.4: Activity Super Admin (2)

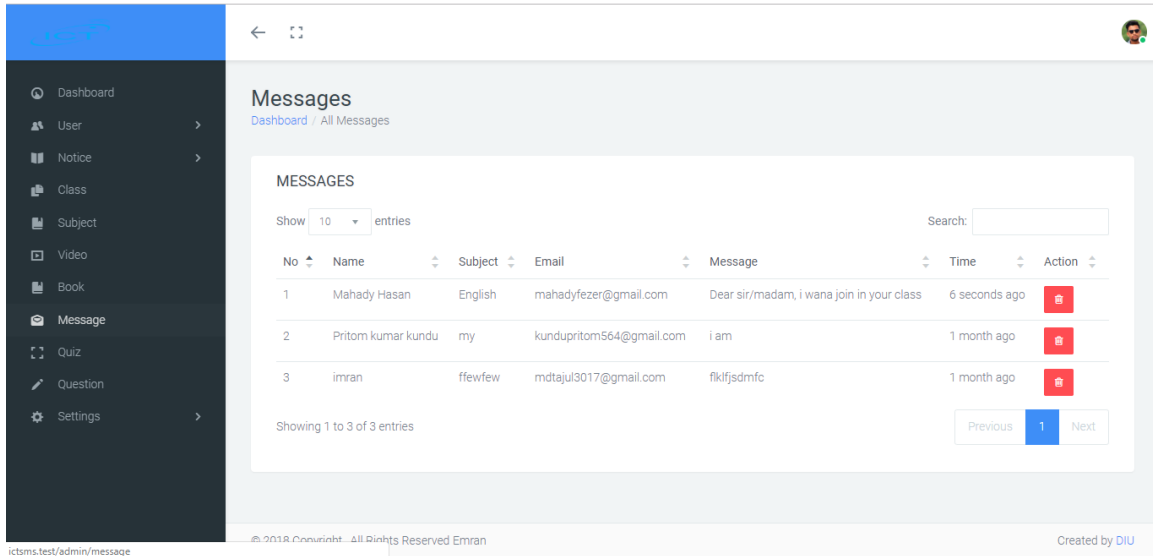


Figure 5.5: User Feedback (Received by Super Admin)

The 'Update Subject' form contains the following fields and controls:

- Subject Name:** Text input field containing 'Chapter 1'.
- Class Name *:** Dropdown menu showing 'Class 6'.
- Description:** Large text area for entering details.
- Status:** A toggle switch that is currently turned on (blue).
- Buttons:** 'Close' (grey) and 'Update' (blue) buttons at the bottom right.

Figure 5.6: Update Subject

Admin

We already see after login to the system Admin dashboard (figure 4.8) and Admin can see the list of Teacher and Students. Admin can make teacher & students. Admin can search as the requirement of their necessary. Here given all figure about the feature of Admin. As an Admin can see the current number of Teachers, the current number of students, their activities and also check a profile of All User.

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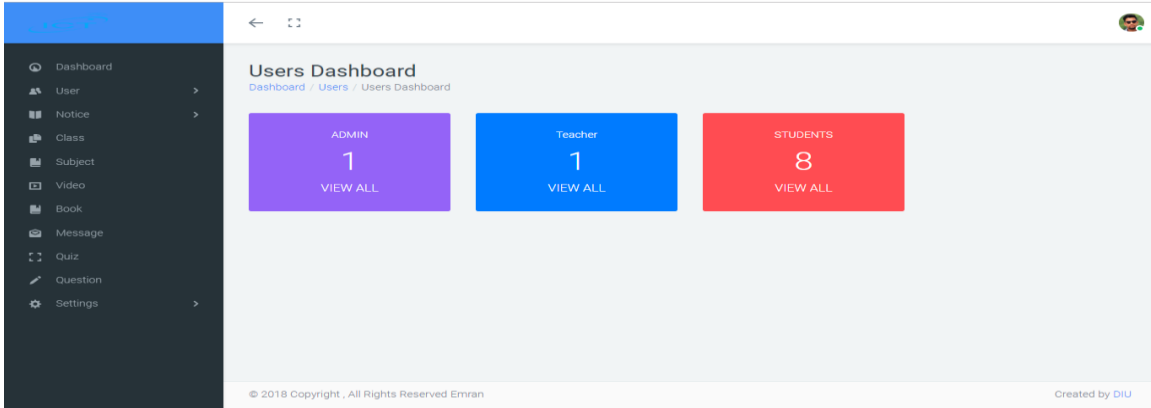


Figure 5.7: Admin Dashboard

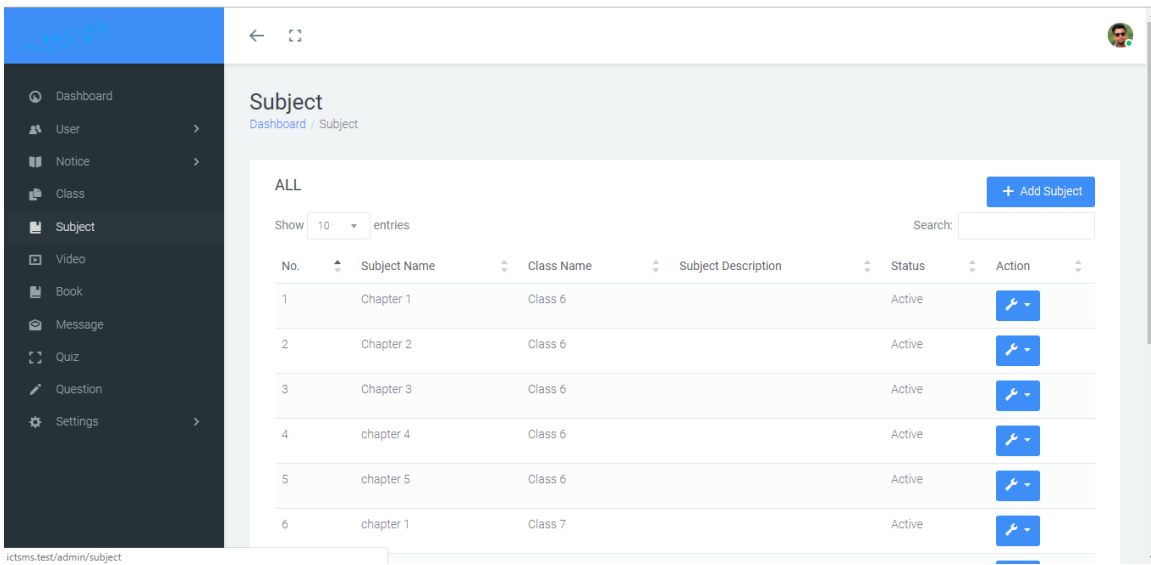


Figure 5.8: Subject maintenance by Admin

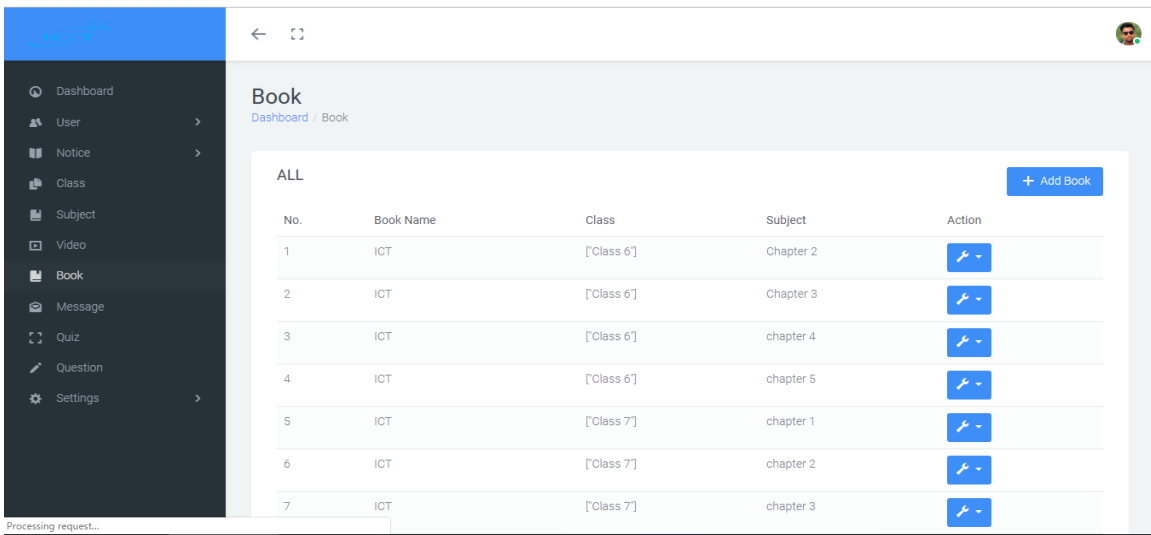


Figure 5.9: Book maintenance by Admin

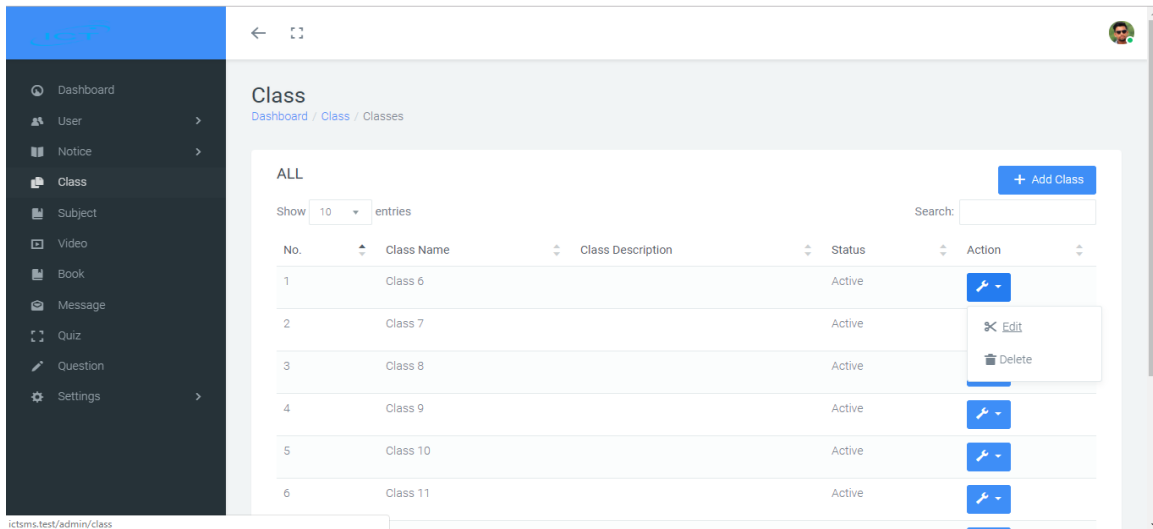


Figure 5.10: Class maintenance by Admin

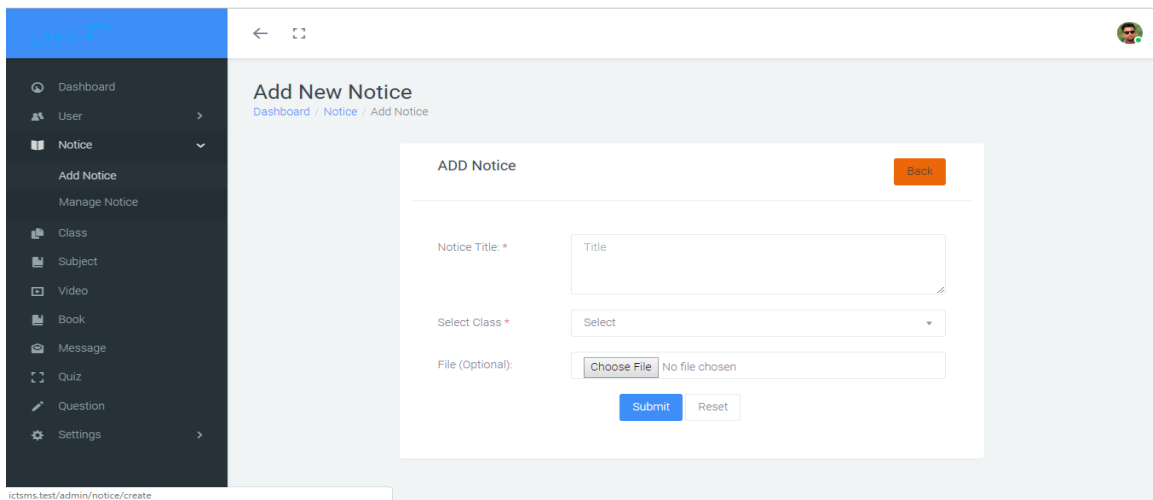


Figure 5.11: Notice maintenance by Admin

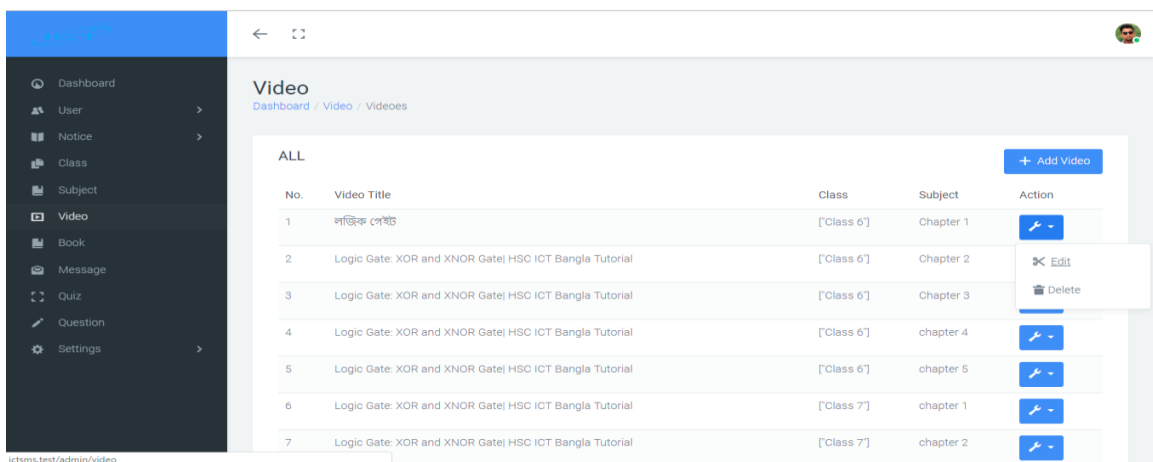


Figure 5.12: Video maintenance by Admin

Teacher

We already see after login to the system Teacher dashboard (figure 4.9) and Teacher can see the list of Students. A teacher can add students & can search as the requirement of their necessary & can take Quiz, post notice, provide lecture video & also can provide necessary learning materials. Here given all figure about the feature of Teacher. As a Teacher can see the current number of students, their activities and also check Student profile

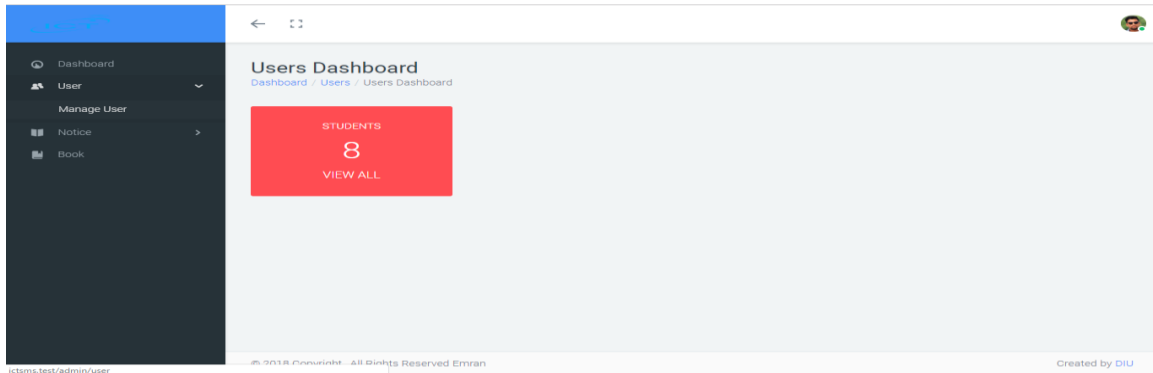


Figure 5.13: Teacher Dashboard

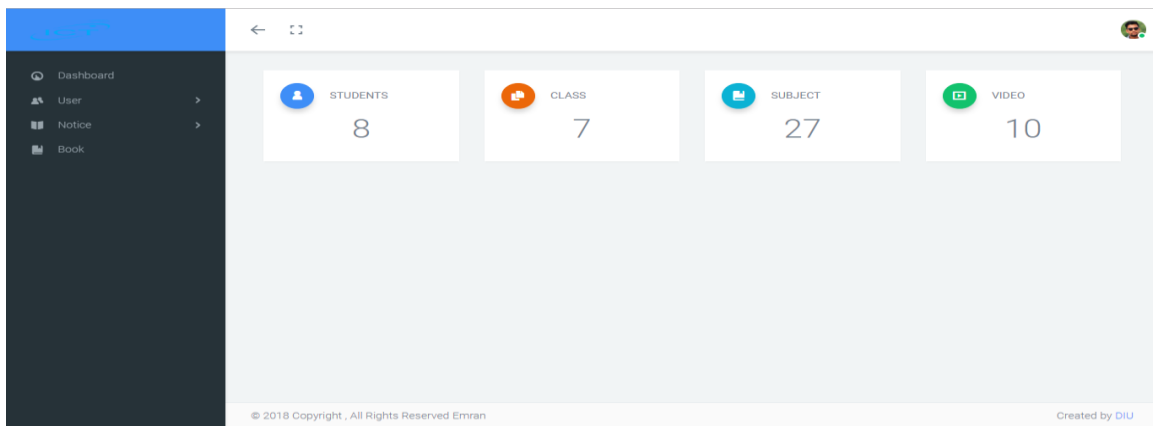


Figure 5.14: Teacher Activity

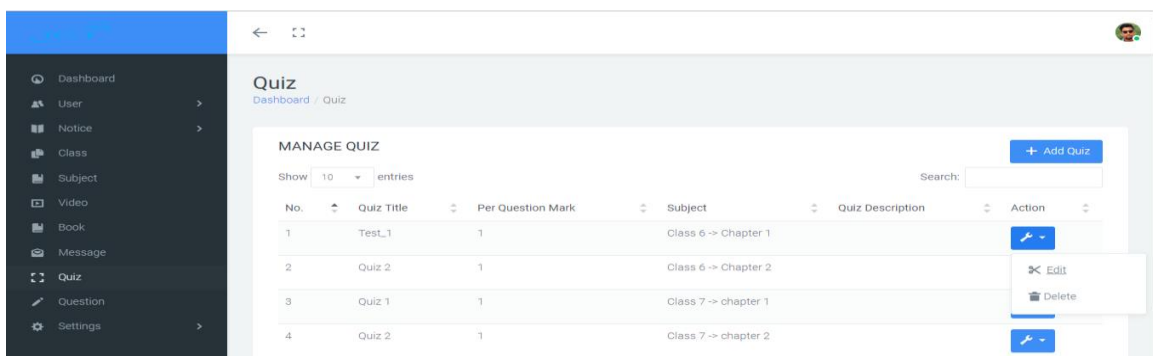


Figure 5.15: Adding Quiz by Teacher

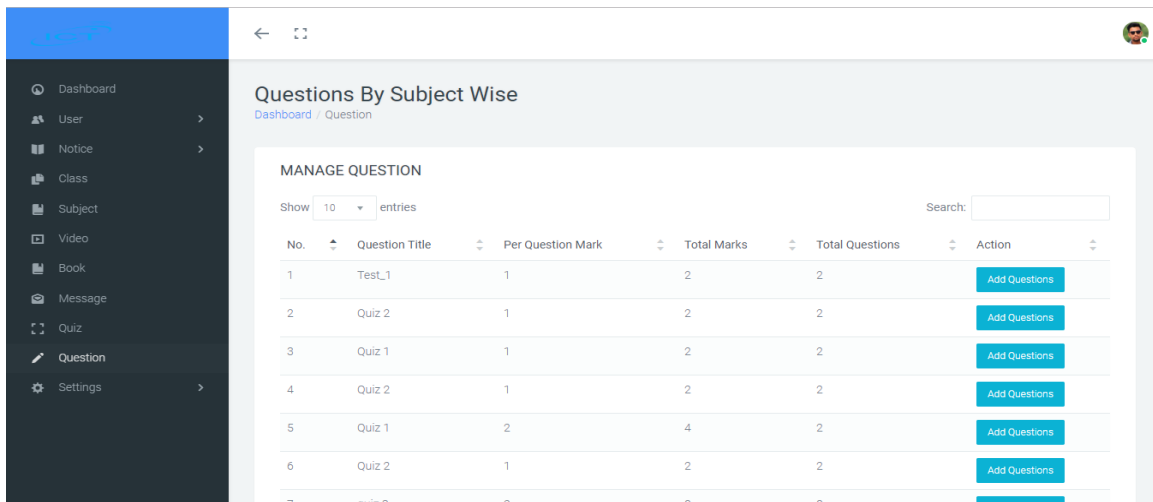


Figure 5.16: Result making of Quiz

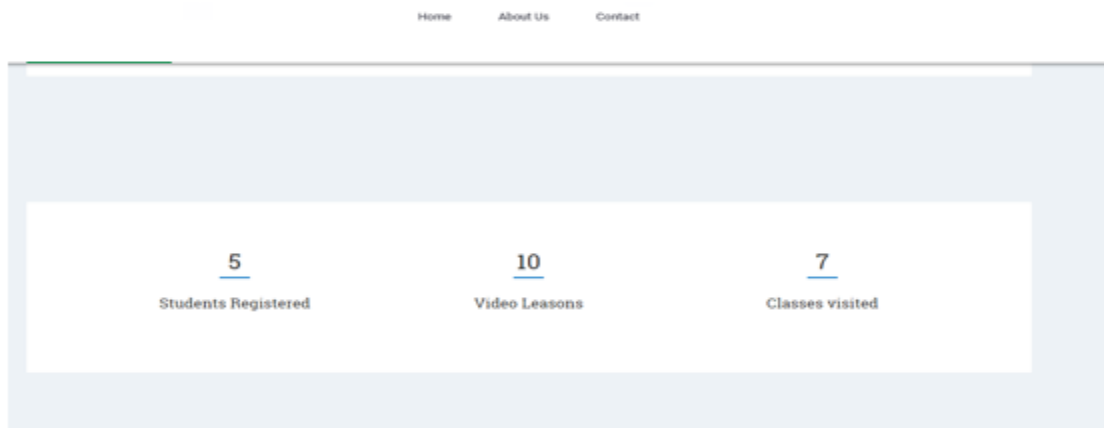


Figure 5.17: Teacher Observation role

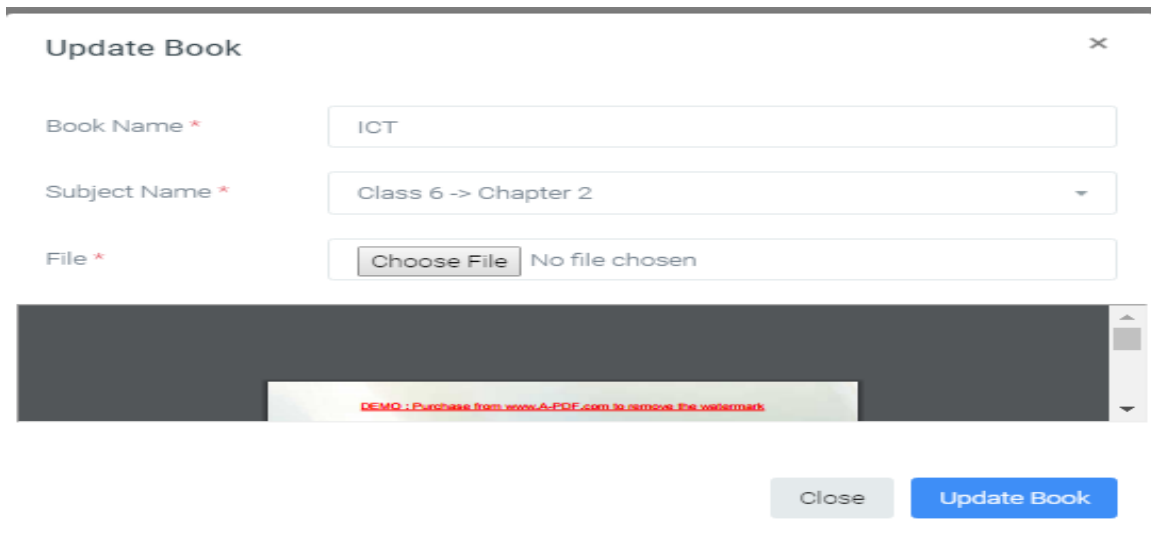


Figure 5.18: Book Update system

Student

We already see before registration to the system (figure 4.2) & login to the system (figure 4.1), after login to the system Student dashboard (figure 5.11) and Student can see notice board, lecture, videos, participate in Quiz. Here given all figure about the feature of Students.

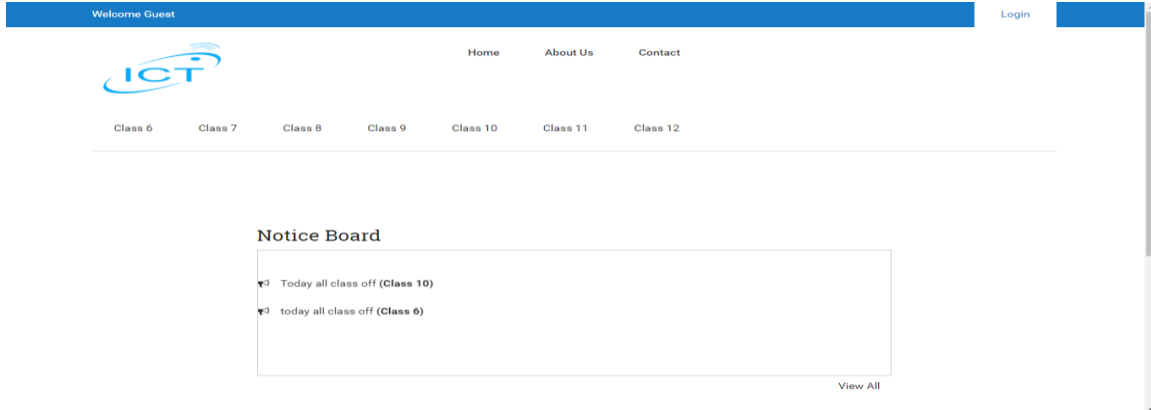


Figure 5.19: Notice Board (For Student)

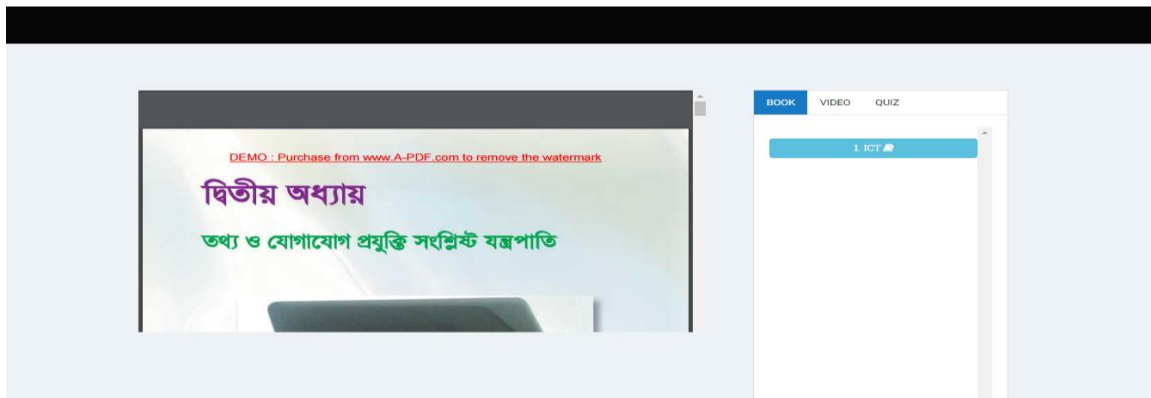


Figure 5.20: Lecture pdf (For student)

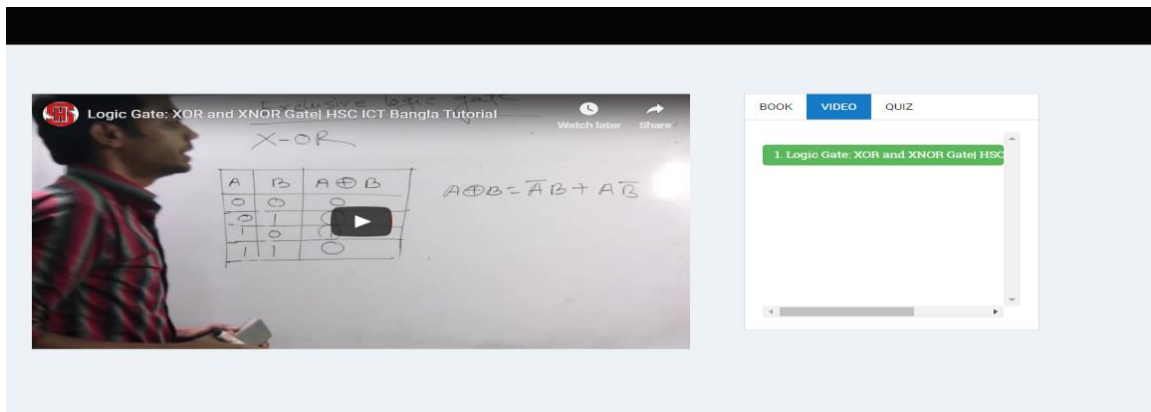


Figure 5.21: Lecture Video (For student)

5.3 Implementation of Interaction.

To build our system we have executed intuitive UI for better client encounter. As a rule, we have utilized intelligent symbol as opposed to content connection or catch. The framework configuration planned with the grouping of back to back strides to help individuals for comprehension.

Execution of Interactions is a normal assignment for all improvement ventures. As our task is a web base undertaking such a large number of assets and client movement need to associate. Here we utilize database like MySQL. What's more, our venture most extreme undertaking is identified with information. So every time server and customer imparting to each other. The information read, compose and adjustment, information getting all are progressing a significant number of the action. Information exchange between page to page additionally take places.

5.4 Testing Implementation

Testing is an arrangement of action that can be arranged ahead of time and led methodically. A designer of the product and an autonomous test amass conducts testing. In test implementation phase test manager ensures that all the pre-requisites are handled to start the test execution. Implementation is the process of putting an action for the formulated plan. Before we implement, the plan should have been completed and our objectives should be clear. So without testing those blunders can't be recognized and after that rectified. In this manner framework testing is a critical period of a framework advancement. Test implementation additionally incorporates robotization scripting. Robotized test contents ought to be legitimately executed to guarantee a great rate of profitability [6].

5.4.1 Test plan

A TEST PLAN is an archive portraying programming testing degree and exercises. It is the reason for formally testing any product/item in a venture. A report depicting the

extension, approach, assets, and calendar of proposed test exercises. It distinguishes among others test things, the highlights to be tried, the testing undertakings, who will do each assignment, level of analyzer autonomy, the test condition, the test outline procedures, and passage and leave criteria to be utilized, and the reason for their choice, and any dangers requiring possibility arranging. It is a record of the test arranging process.

Test Plan Types:

Master Test Plan: A single level test plan for a project that unifies all other test plans.

Testing Level Specific Test Plans:

- Plans for each level of testing.
- Unit Test Plan
- Integration Test Plan
- System Test Plan

Acceptance Test Plan

Testing Type Specific Test Plans: Plans for major types of testing like Performance Test Plan and Security Test Plan.

5.4.2 Unit Testing:

UNIT TESTING is a level of programming testing where singular units/parts of a product are tried. The reason for existing is to approve that every unit of the product executes as outlined. A unit is the littlest testable piece of any product. It more often than not has one or a couple of sources of info and normally a solitary yield. In procedural programming, a unit might be an individual program, work, method, and so forth. In protest situated programming, the littlest unit is a technique, which may have a place with a base/super class, theoretical class or determined/tyke class.

Distinctive tests are led as a feature of unit testing are as per the following:

- Interface testing
- Local information structure testing
- Error dealing with ways testing
- Boundary condition testing

- Independent ways testing
- Execution way testing

5.4.3 System Testing

System Testing is a level of programming testing where an entire and incorporated programming is tried. The reason for this test is to assess the framework's consistency with the predetermined prerequisites. The way toward testing a coordinated framework to confirm that it meets determined prerequisites. System testing is performed with regards to a System Requirement Specification (SRS) or potentially a Functional Requirement Specifications (FRS). It is the last test to confirm that the item to be conveyed meets the particulars specified in the necessity archive. It ought to research both useful and non-useful prerequisites [6].

5.5 Test Result and Report

Results are the fundamental worry of our task. Above all else, our undertaking is result arranged. Each task needs a yield thus. According to our testing knowledge, we have discovered every normal outcome. We admire the required experiments as per improvement criteria. Distinctive experiments have made for a particular procedure and put away all experiment results as needs be to decipher all outcome. This will settle on choice with the better level of exactness. We have build cycle astute and computerized testing to settle on the better choice. When test results are deliverable, at that point it has been discharged. A test outcome ought to be assessed as indicated by DOD (Definition of done) of the particular piece of a venture.

CHAPTER 6

CONCLUSION & FUTURE SCOPE

6.1 Discussion & Conclusion

Toward the finish of our task, we can close on the note that the present world is inadequate without the nearness of the data framework. In each field and each part of any business or non-business association, we will locate the outrageous utilization of data framework. Our task was to illuminate the way that how simple and fast can be a work procedure using data framework. We have outlined the data framework for Students they can see an address, video, and others ponder material.

6.2 Scope for Further Development

We try our level best that we fulfill the requirement that we proposed. We can convert our system is an android application in future, because nowadays smartphone is available to everyone.

- We can use IOT.
- We can arrange ICT fair for improving student brain capability for creativity.
- Could also allow International business to push deals/coupons within a certain geographic area.

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