

DIU AUDITORIUM BOOKING SYSTEM

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

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Approval

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Declaration

We hereby declare that, this project has been done by us under the supervision of Ms. Samia Nawshin, 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

We are going to develop a project named “DIU Auditorium Booking System” that will help the users for booking university Auditorium for a specific date. In that Auditorium system we divided it into two parts one is Admin and another is Public or Users panel. The users can easily book their desire Auditorium by using this Auditorium Booking System. Firstly, the users select campus and then checked auditorium which belongs that campus and finally they can have booked their auditorium on a specific date. Before booked they’ve to registered with a form in our system. After they can select the time schedule. If their desire time schedule is available or free for that date they can have booked it and they get an acknowledgement by our system. In admin panel, the administrator can be adding new campus, auditorium which can be edit, delete or updated by there’s desire. They can also approve or reject the user’s auditorium booking request.

Through this application the university will be able to manage their auditorium booking service digitally. Therefore, the system will also be helpful for external users for booking our university campus auditorium. The system will be effective for teachers, students and others university stuff.

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Chapter 1

Introduction

1.1 Introduction

This project is about the DIU auditorium booking system. Through this project, DIU auditorium can be managed and manipulated. The project has developed by the programming language PHP. In this project mainly focuses on the book the DIU auditorium or know about the details of all DIU auditorium. Using this web application, a user can know about the current status in all auditorium and can book their required auditorium.

The system is too much useful for modern busy life. Any web app user can book his/her needed auditorium without any hassle just visiting the system, log in and some other simple payment process. People without having any login account can see Information's about the auditoriums and can open an account using the system for booking. The admin verifies the request for the user's request, can approve or cancel it and manage the full system.

1.2 Motivation

Undoubtedly Daffodil International University is the most famous private university in Bangladesh. I'm also proud of a student at Daffodil University. There is 3 large campus of our university and all of the campuses are really beautiful. Our university has provided many facilities, among them auditorium is most important one. Three large and beautifully decorated auditoriums with all the facilities of modern audio-visual equipment have been constructed in Daffodil Tower, 4/2, Sobhanbagh, Dhanmondi, Dhaka and, DIU Permanent Campus, Ashulia Model Town, Dattapara, Ashulia, Savar, Dhaka, with seating arrangements for almost 500 people. The auditoria are used to host different seminars, symposia, cultural programs, workshops, festivals, exhibitions, educational movie shows and so on. All of the auditorium booking systems is going on the analog way which really difficult for the users and authority. In the current system, the users have to book our auditorium in physically,

so it's also time-consuming and hassle for the users. So, from this point of view, we have an idea by which we make it digital and remove the manual system. In our implemented system, anyone will be booked our university auditorium from any place and execute all of the things digital way. The university authority has kept the all of rights to change anything or remove anything as their desire by using our application.

1.3 Objectives

The objective of the project Auditorium Booking System is to simplify booking and knowing about all auditorium in under this project using online devices like Computer, Smartphone, Tablet etc.

A person thinking about the auditorium booked is an easy process as well as without any hassle using electric devices and with having account card or direct bank transfer from any corner of Bangladesh at any time of the day. And in this process, a user need not present at the DIU office physically for the booking.

There are several objectives of the project. They are as follows:

- Easily know the current status of the DIU auditorium.
- Easily booked an auditorium.
- Easily known about the capacity of any auditorium.
- The users can easily query all of the information in details from this project.
- Can pay the bill by using online money transfer.
- The users can view the auditorium which he/she booked before.
- The admin has kept the all of authority in the field of add, edit and delete any campus and auditorium.
- The admin can approve or cancel the users booking request.
- If the admin wants, they can reserve a specific auditorium on a specific date.

1.4 Expected Outcome

We expect from our project that will make the full DIU auditorium system is more simplicity, digitalized, dynamic and user-friendly in which can cover all of the requirements of our university authority and users. Here some

- User-friendly web interface to know about DIU auditorium details located in any campus.
- Easily find the auditorium schedule any time in anywhere only need internet.
- Find the DIU campuses location using google map.
- Booking required auditorium from anywhere from Bangladesh any time even in a holiday.
- Simple registration form for login/ order auditorium.
- Payment system online base. Pay the ordered auditorium bill via online money transfer or direct bank transfer.
- View ordered auditorium after admin/ authority approval.
- Easily contact with admin/ authority for any query. The answer will reply via mail.
- No need to physically come to the university for booked this or payment this.

1.5 Report layout

In this chapter we discussed about the summarization of our topic what we have discussed in our other chapters.

In Chapter 1. In there, Discuss about the motivation, objectives and what is a user what he gets in this application. And also, what the authority gets from the application.

In Chapter 2. In this chapter, write about why we chose this for our project.

In Chapter 3. There discuss about the needed thing for development the system.

In Chapter 4. In this chapter totally work about the design of our proposed system.

In Chapter 5. Here we write about the implementation of the proposed system and after complete the system how we tested it.

In Chapter 6. Finally, in this lesson discuss the conclusion of the proposed system and what we are planned in future for this project. Also, what we want to add in this propose system.

Chapter 2

Background

2.1 Introduction

In System Design the proposed system will be defined as tasks that focus on the specification of a detailed computer-based solution. System design is the most important phase of the System Development Life Cycle. It provides the understanding and procedural details necessary for implementing the system recommended in the feasibility study. Emphasis is on translating the performance requirements into design specifications. The data catalog of the proposed system will be defined and the relationship between the entities through the constraints will be identified. Hence, the above analytical phase will now be converted to a Database structure in order to provide a proposed system the functionality to deliver data from a centralized database.

2.2 Related Works

The problem here is likely deeper than just to write a related work section. In order to complete a project, you need to compare your project with the prior project which is already existing. In web development field there is a possibility of related work.

As we develop a website that will provide booking facilities of a reputed university of Bangladesh, Daffodil International University. Still, now auditorium booking system is not available in our country in a web form. There are similar or related booking system is available. As like hotel, resort booking system. There are many companies who provide booking facilities online to book their hotel, resort online. If we compare the hotel or resort booking system are similar to our project. Because the booking systems are often similar.

In our next part we will shortly describe the comparative studies. This will help us to understand the different between hotel booking system and our auditorium booking system.

2.3 Comparative Studies

Web application have gained increased acceptance over the years in companies and organization as the world move to a global village. Our implemented system is different from other existing web apps because some of the web application provides the booking facility of hotel or resort. But there is no website in our country to provide auditorium booking facility. Some of the foreign websites provide both booking system. But they are a very small number of website are available. There isn't any website which only works for auditorium booking, especially for university auditorium booking system. Every university all over the world has their auditorium for internal and external users. For both users are need to visit the office for their booking. Even every university has their website. If they include the system in their existing website it will be helpful for both of users and the authority.

2.4 Scope of the Problem

The most important questions that must be asked – and answered – when attempting to define project scope is to look at what the finished website will be and will use it. A good website is user-friendly to the right audience, easy for that audience to find, and provides information the targeted audience wants and needs. If these things can be stated and planned out, having good project scope is halfway defined. Every project is designed based on many scopes. There are several scopes for the project.

They are as follows:

- The proposed system will save time.
- Payments can be paid at anytime from anywhere in the country.
- No need to present physically on office.
- Helpful for users to easily handle the system as web-based and provides user friendly interface.
- When and who are the booked for the auditorium authority know this any time.

- Queries can be placed via online from users this will make the system effective for booking the auditorium.
- Any notification can be viewed on user's personal profile from the authority.
- No chance for harassment.

2.5 Challenges

Any project has to many challenges we take for complete or development and also face a big problem to develop this type of project. Below are five web application testing challenges faced by web developers during the development process.

Integration. Integration testing exposes problems with interfaces among different program components before deployment.

- Interoperability.
- Security.
- Performance.
- Usability.
- Quality Testing, Exceptional Services.

Integration

Integration testing exposes problems with interfaces among different program components before deployment. Additionally, integration testing can show the different issues an application may have when interacting with other applications, allowing the developer to tweak things. Environment and infrastructure inconsistency, different interaction models, and overall performance are just a few of the issues associated with integration testing.

Interoperability

Proving end-to-end functionality between communicating systems is always a challenging obstacle. Different users utilize different browsers and operating systems. To pull data, testing each one to confirm a clear information pathway is very important. Even if the browsers are similar, the web application may be rendered differently based on screen resolution and overall software configuration. This can present some serious issues for developers.

Security

In one of the most important tests, the developer must make sure that the continually evolving cyber threat can be countered and neutralized. Additionally, tests associated with data integrity before and after an attack are equally important when considering data breaches or lost information. Some of the challenges associated with security testing include dealing with unsecured communications, removing malicious files (if security firewalls have been breached), and the utilization (and integration) of different authentication procedures.

Performance

Slow applications are not successful. Developers understand that the speed of the app is defined by the need of the user, and with more users expecting more speed, the requirement of performance is non-negotiable. Testing large applications on minimal hardware, underestimating software requirements, and overextending application features are just a few of the issues associated with performance testing. Integration and interoperability issues can also have a direct effect on performance, and because of that, should be tested at the beginning.

Usability

Since web-based applications are dependent on different browsers, consistent usability is crucial. Additionally, since the app is the brand (or a component thereof), any inconsistency within the user experience may translate into a negative experience, affecting the brand and its potential growth. When testing usability, developers face issues with scalability and interactivity. Since every user is different, it is important for developers to utilize a representative group to test the application across different browsers, using different hardware.

Chapter 3

Requirement Specification

3.1 Business Process Modelling

Business process modelling, often called process modelling, is the analytical representation or illustration of an organization's business processes.

Along with business process discovery, process modelling is widely viewed as a critical component in successful business process management (BPM).

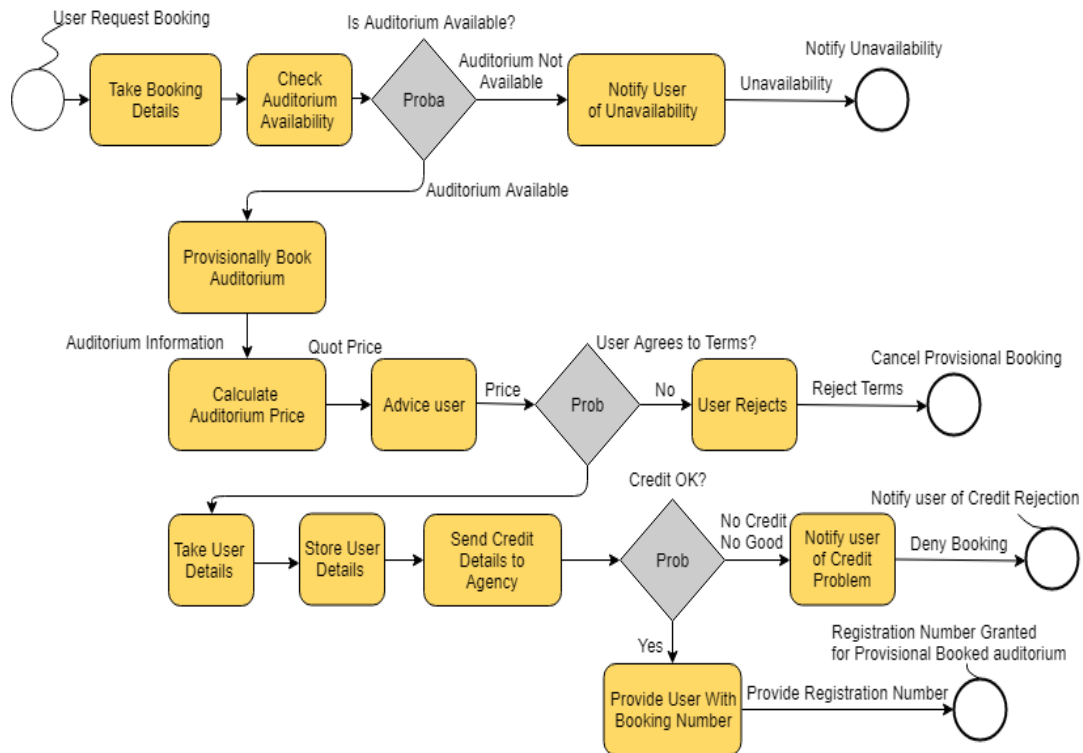


Figure 3.1: Business Process Model

In figure 3.1 shown our DIU auditorium booking system business process model.

3.2 Requirement Collection and Analysis

First off, we've collected the basic requirements for this Auditorium System project from the auditorium management of DIU, auditorium management staff and others members of auditorium management. Some are following —

We've collected the previous document of auditorium booking system which was created manually from our university auditorium controller where the users can have booked their desired auditorium. Discuss with the authority and tried to know how they make plan for our auditorium booking system and also the way of implemented. We also try to know about the role of admin, how the admin takes the booking order and how they allocate the time and auditorium hall.

The project Based on requirement we have selected raw PHP for development purpose. We have selected MySQL as database and use HTML, CSS, JS, Bootstrap for front-end design.

3.3 Use Case Modelling and Description

A Use Case Diagram sometimes called unified modelling language (UML) is a graphical representation of a system action and user's roles. It is a simple representation of a system's user interaction with the system. A use case shows the list of actions or events and role of users with these actions.

In software and system engineering an actor can be a human other external system. There are several actions or events on the system and actors are related with these actions. In use case diagram an actor can play role with different actions and also different users can play role with same actions. Actions are generally known as use case.

So, to create use case diagram, the analyst must have to first identify the different types of user who will use the system. Actions actually represent the procedures which people have to follow to operate the system.

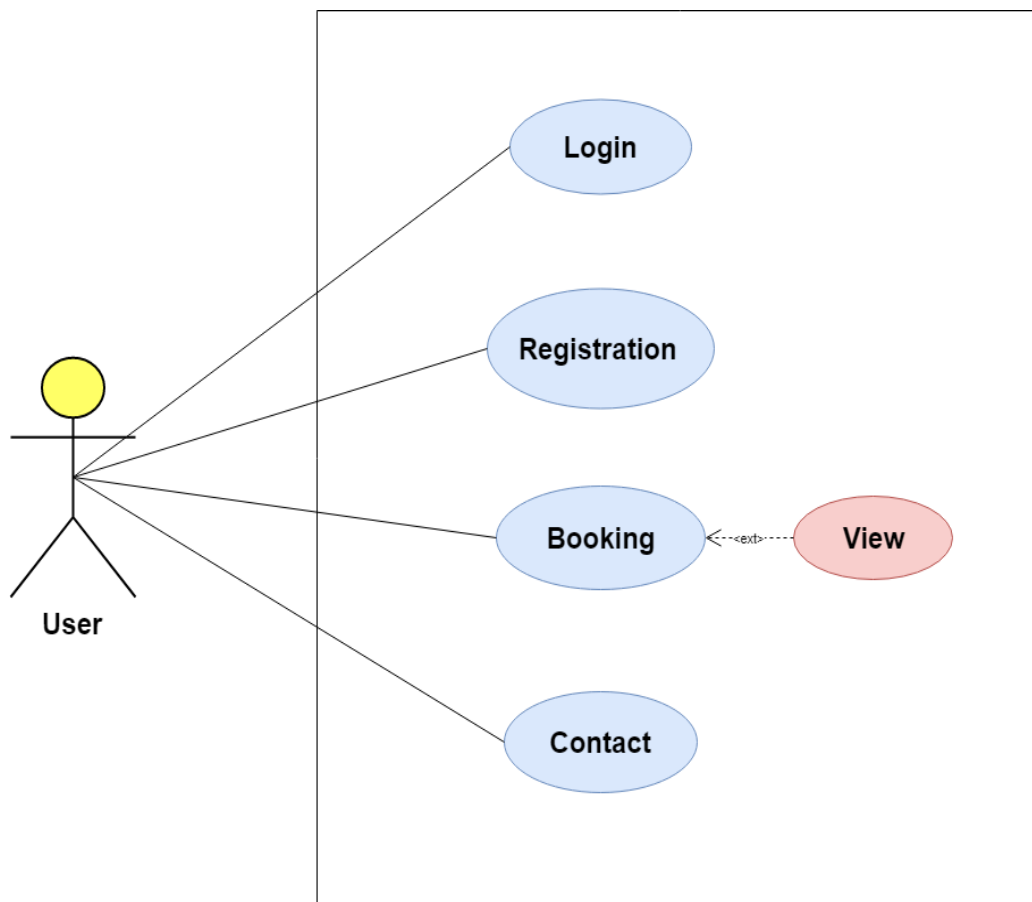


Figure 3.2: Use Case Model for Admin user.

Here, In figure 3.2, the user can perform several types of operations such the user needs to be login first so the user connects with the login. For login the users must be registered with our auditorium system. So, the user does fulfil the registration form through their name, password, email, address etc.

After registration the user now have to booking DIU auditorium which he wants or required. For the booking purpose the users also can view before the auditorium booked. For any information to know about the DIU auditorium booking system the users can keep contact with us, so here the user also connects with the contact entity.

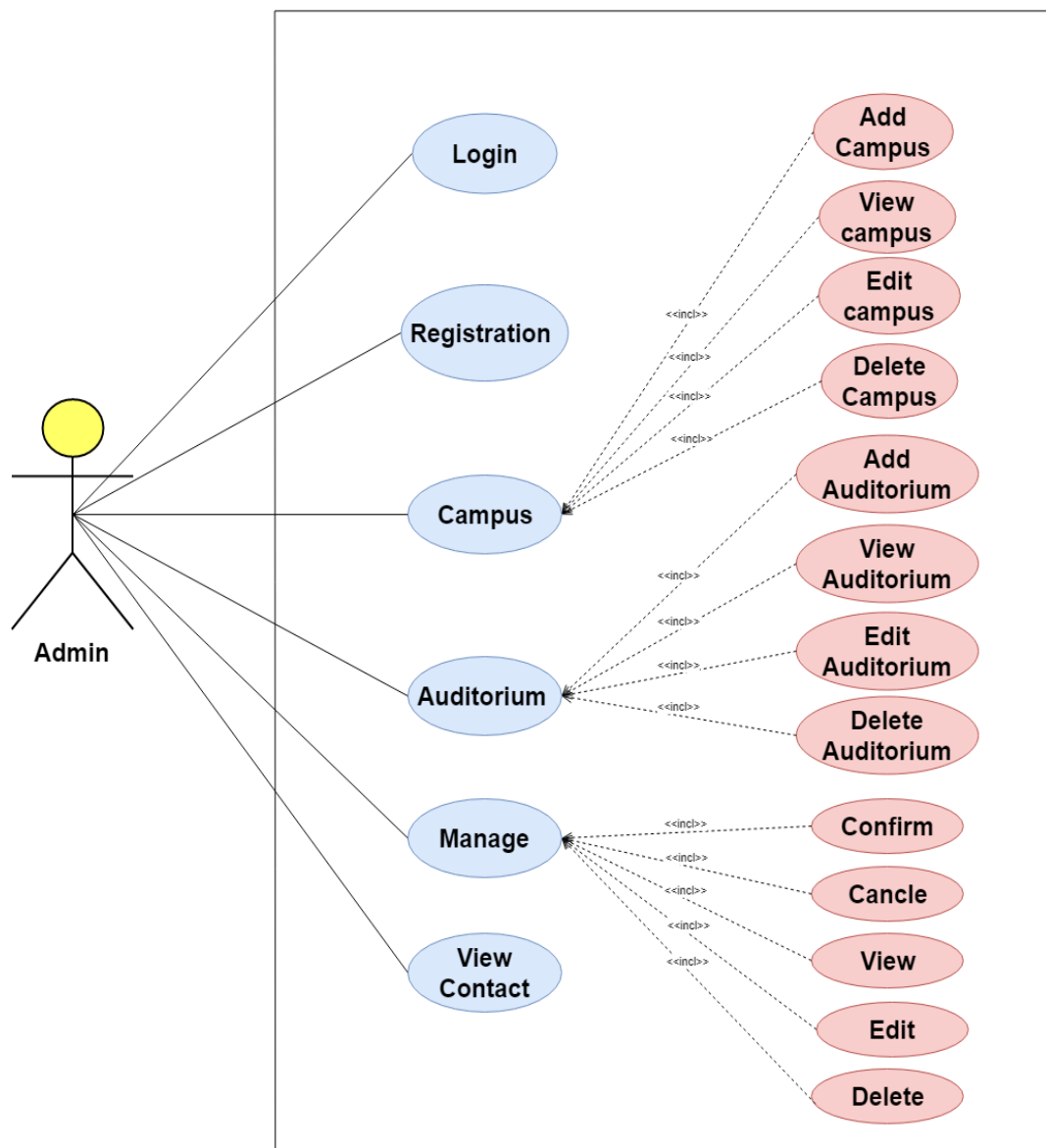


Figure 3.3: Use Case Model for Admin user.

Figure 3.3 shown the connectivity between Admin and login, registration, campus, auditorium, manage and contact. The admin here will execute several operations. First the admin registered himself as a admin of our auditorium system and admin can login. Admin can connect with campus entity which he can add one or more campus, edit or update, delete and view campus. Admin also interact with auditorium which provide add, edit, view and delete one or auditorium. In the above figure the admin also interacts with mänge for few particular operations such confirm the users request

for booking request, can cancel the request. The admin also can view all of the users contact. In the above figure we have already drawn.

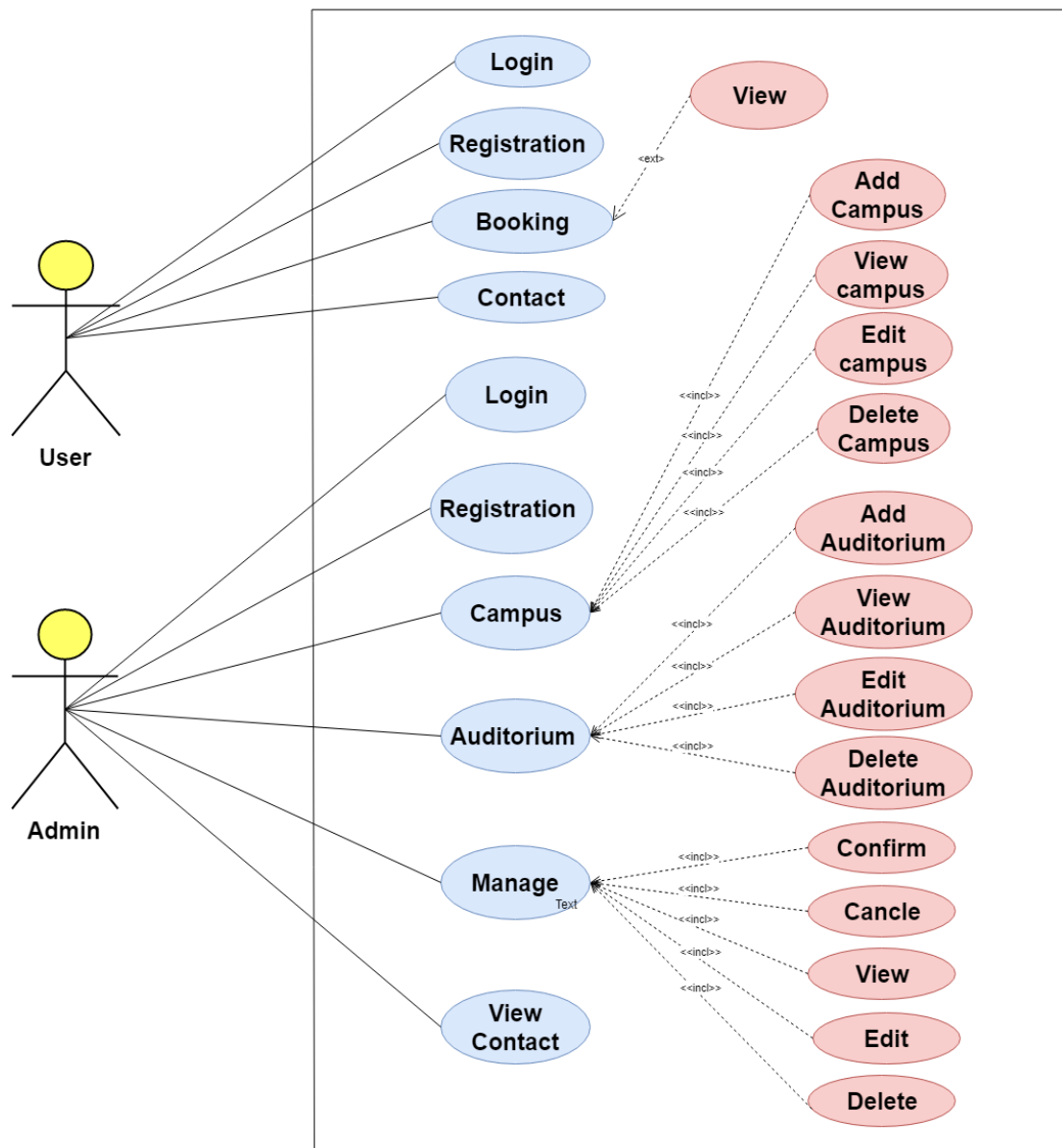


Figure 3.4: Use Case Model for DIU Auditorium Booking System.

Figure 3.4 shows the Use Case Model for the whole system. All activities of the systems are aggregated here.

3.4 Logical Data Model

A logical data model describes the data in as much detail as possible, without regard to how they will be physical implemented in the database. Features of a logical data model include:

- Includes all entities and relationships among them.
- All attributes for each entity are specified.
- The primary key for each entity is specified.
- Foreign keys (keys identifying the relationship between different entities) are specified.
- Normalization occurs at this level.

The steps for designing the logical data model are as follows:

1. Specify primary keys for all entities.
2. Find the relationships between different entities.
3. Find all attributes for each entity.
4. Resolve many-to-many relationships.
5. Normalization

The figure 3.5 shows in below is our DIU Auditorium Booking System logical data model. [1]

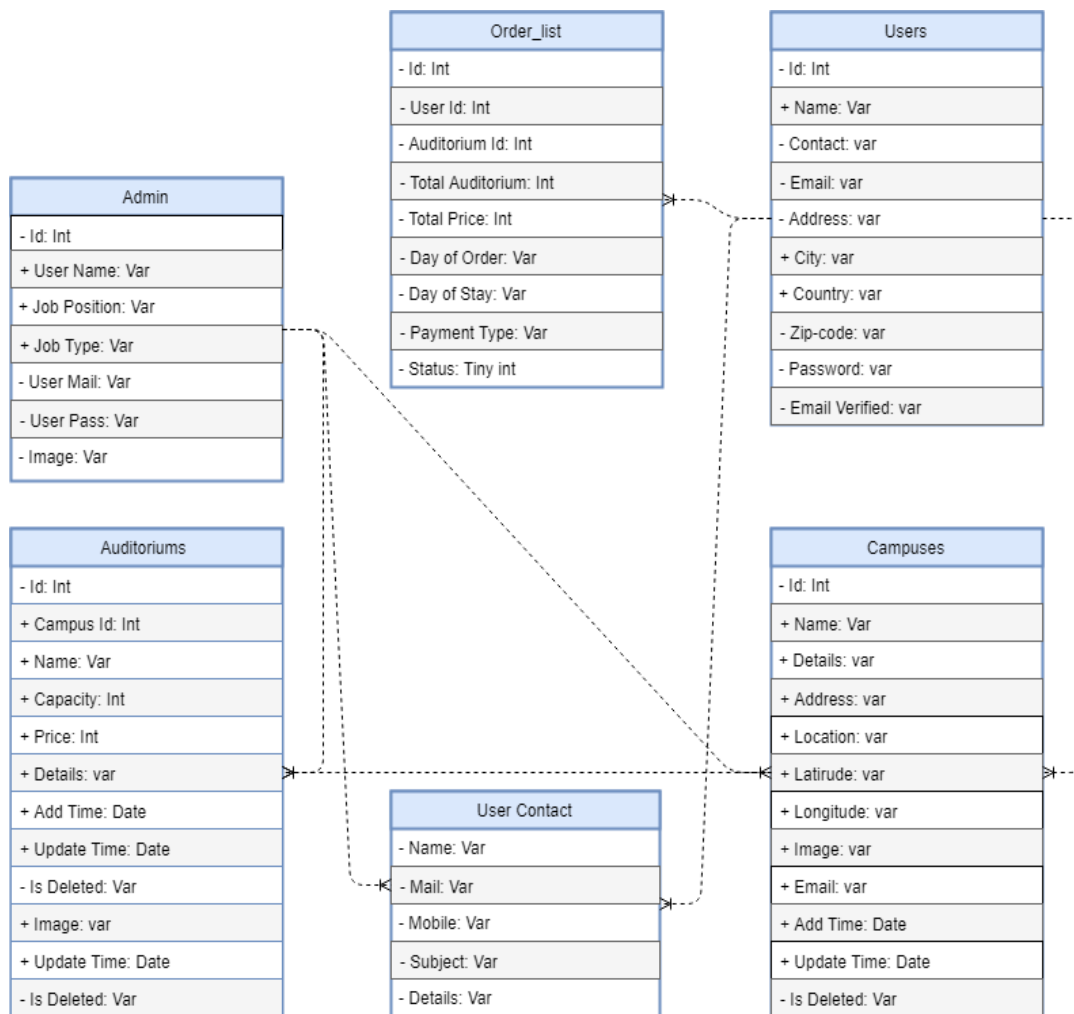


Figure 3.5: Logical Data Model for DIU Auditorium Booking System.

3.5 Design Requirements

Finding out requirements for designing the whole project is one of the most important task for completing the project. Other task of development is fully dependent on designing the system. It is a process which graphically represents how the system will be working. As per projects objects below all the design requirement are pre-settled.

Chapter 4

Design Specification

4.1 Front-end Design

User Interface is the most important for every software. The success of the application is mainly depending on design and easy access for the user. Because of our application is for DIU auditorium booking system in this application if customer can face any hassle or any delay then he would escape this. So, that's a very big harm for our project. In that case the web interface is too much important for any project. In this chapter, this lesson we discuss about the interface about the front-end design. In our front-end design we design several pages. Home, About, Campuses, Auditoriums and Contact are the pages of our website. In this website interface there are also login and registration for both admin and user. There is a user dashboard for user. And a admin dashboard for admin/ authority to manage their task and manage the full system. We have selected MySQL as database and use HTML, CSS, JS, Bootstrap for front-end design.

Welcome page Application

A home page is the main page of a website. It also called the landing page, user can be navigating to the website landing page from web search engine. As like every website has Our website contain a home page. Our home page is shown below.



Figure 4.1: Home Page Model of DIU Auditorium Booking System

This is our home page and this is also the main page of DIU auditorium booking system. In the programmer language it's called the index page of any project. In this home page the main interface of our project here we describe a shortly. And any page of this website a customer can go via in this page using menu.

About page Application

This is our about page

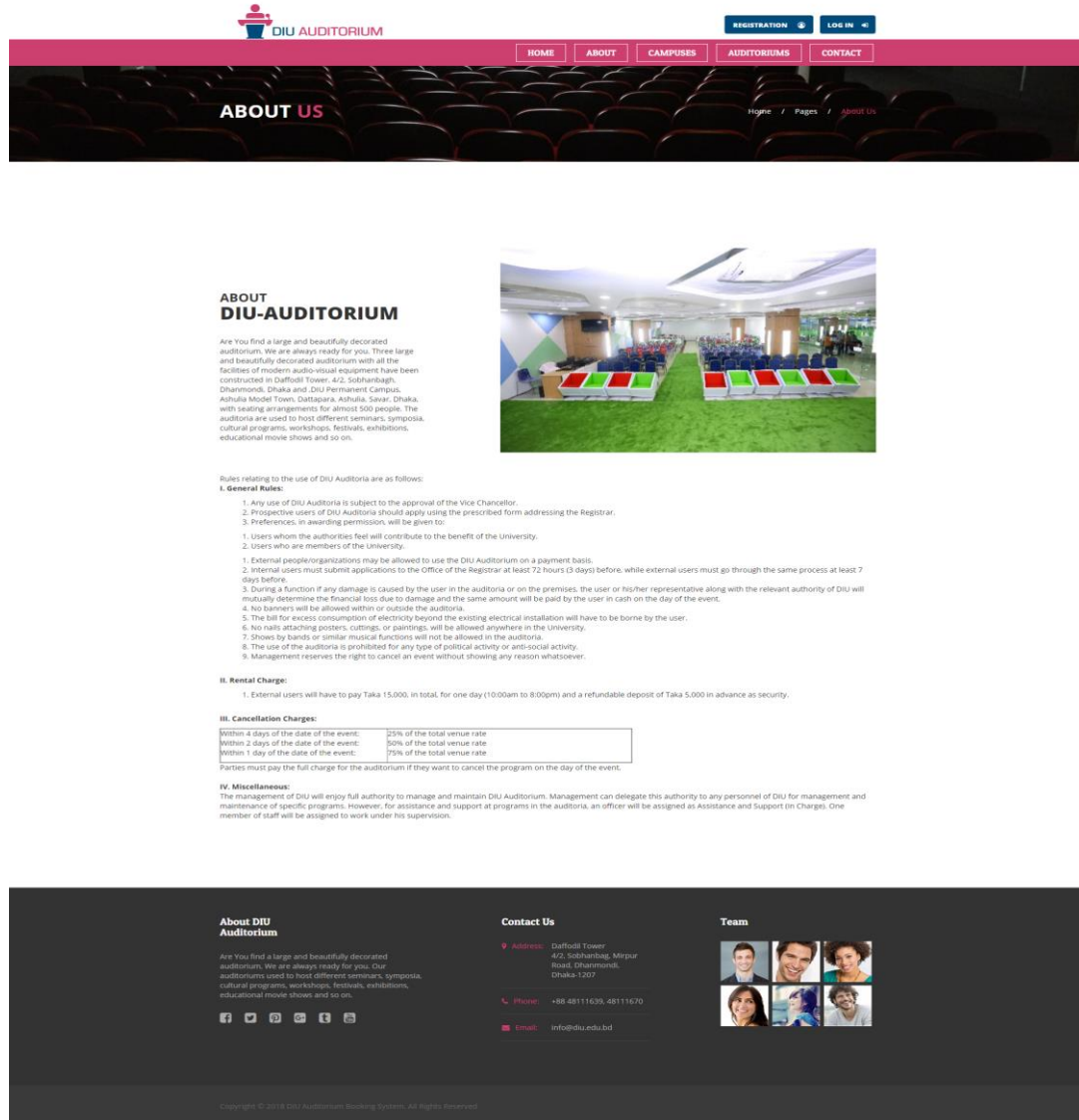


Figure 4.2: About Page Model of DIU Auditorium Booking System

We totally try to describe DIU auditorium, teams & condition to book an auditorium this project on this page. A customer can easily understand our aim to carefully read this page.

Contact page Application

Users can contact with the admin for any problem and query and they can give feedback about the system.

The screenshot shows the contact page of the DIU Auditorium Booking System. At the top, there is a navigation bar with buttons for 'HOME', 'ABOUT', 'CAMPUSES', 'AUDITORIUMS', and 'CONTACT'. The main content area is divided into two columns. The left column contains a contact form with the following fields: 'NAME *' (with a placeholder 'Your Full Name'), 'MAIL *' (with a placeholder 'Your Email Address'), 'PHONE *' (with a placeholder 'Your Phone Number'), 'SUBJECT *' (with a placeholder 'Your Subject'), and 'HOW CAN I HELP?' (with a placeholder 'Your Message Body...'). Below the form is a 'SUBMIT CONTACT' button. The right column displays 'Contact Information' with the following details: 'OPEN HOURS' (Our support Hotline is available 24 Hours a day: +88 48111639, Saturday-Friday: 8am to 9pm), 'BUILDING ADDRESS' (Daffodil Tower, 4/2, Sobhanbag, Mirpur Road, Dhanmondi, Dhaka-1207), 'EMAIL' (info@daffodilvarsity.edu.bd), and 'CELLPHONE' (+88 48111639, 48111670). At the bottom of the page, there is a footer section with 'About DIU Auditorium', 'Contact Us' (including address, phone, and email), and a 'Team' section with a grid of six team member photos.

Figure 4.3: Contact Page of DIU Auditorium Booking System

Figure 4.3 shows the contact page for user. This model allows user to contact with admin and with developers. User need to write their name, email id, contact no and question for the service then click on the submit contact button to send the message. Admin will give answer via mail.

Campus page

User has several functionalities they are can view campus info, details by visit this page. In this page user can see which campus how many auditoriums are. And also known about the campus information in detail by click on view details button. If

someone would like to book an auditorium in respect of a specific campus, he/she can search it's easily by click auditorium button.

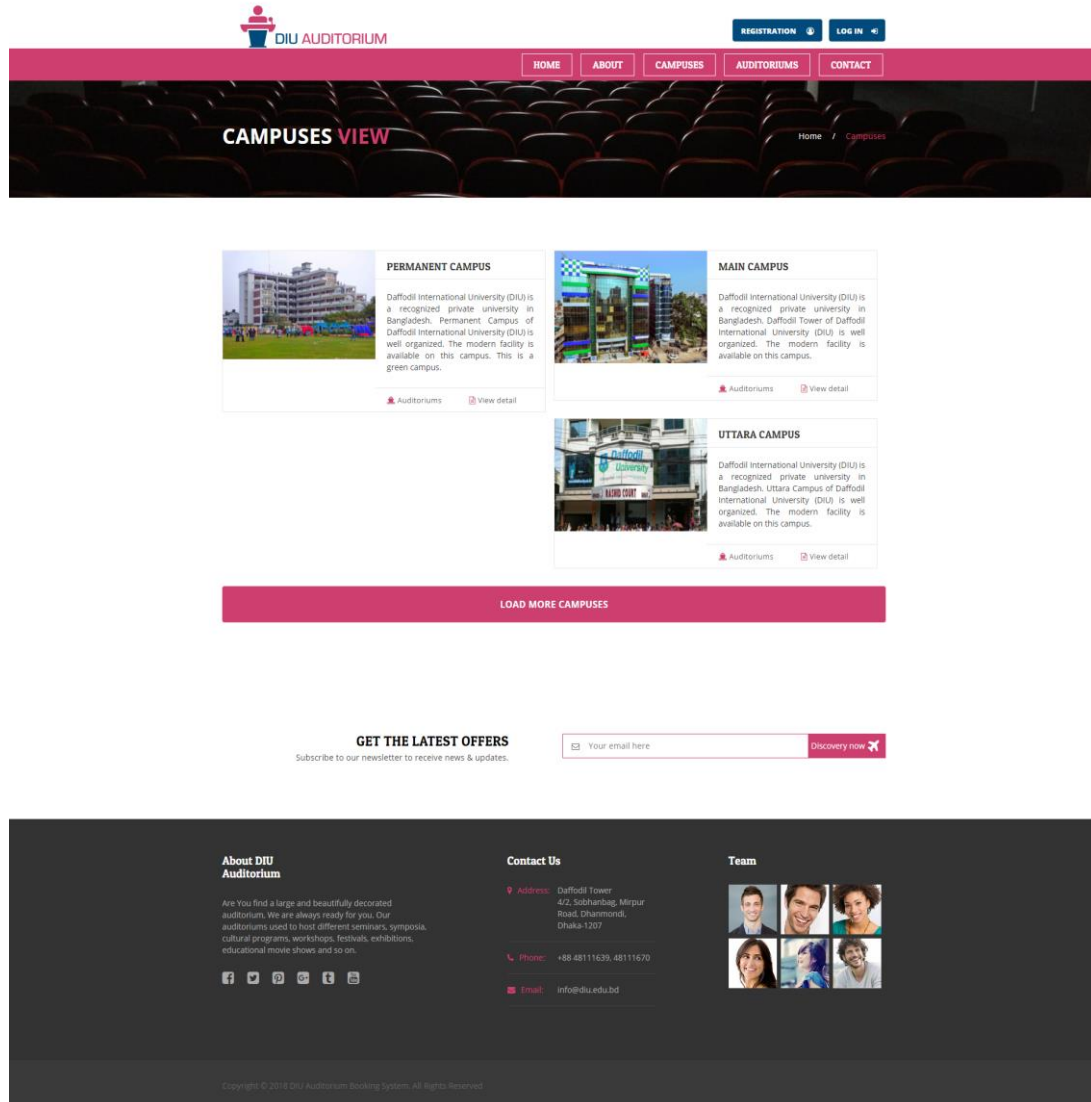


Figure 4.4: Campuses Page of DIU Auditorium Booking System

Campus view details are shown below in figure 4.5.

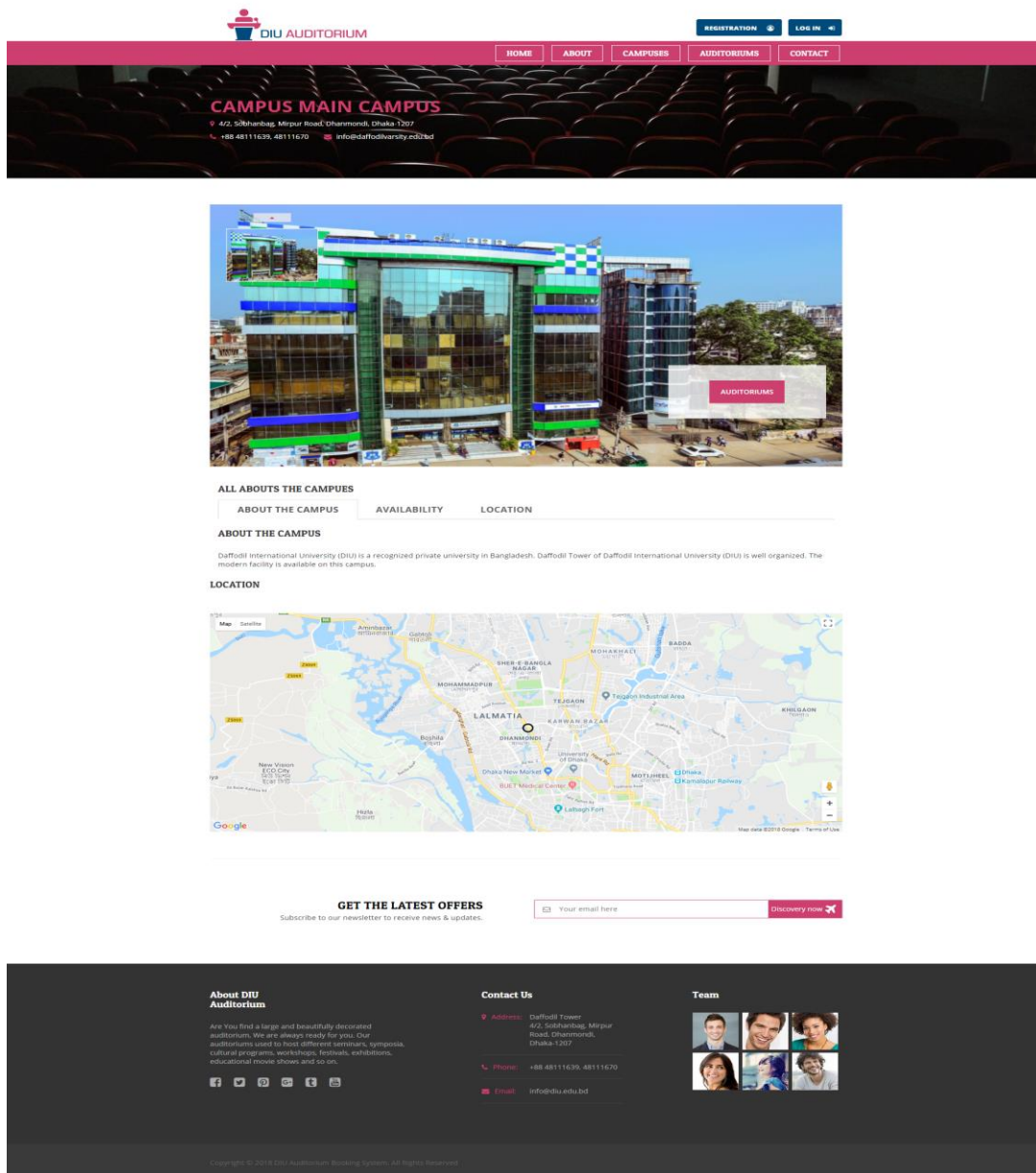


Figure 4.5: Campus details page of Auditorium Booking System

Figure 4.5 shows the campus details page for user. This model allows user to view details about all campus under the university. In this example, we see the details of the DIU main campus. Location of the campuses using google map are available here, so that a user can find campus easily.

Auditorium page

Filtering the auditoriums under a specific campus user just need to visit the campuses page, the chose the campus and the want to click the auditoriums. If any user wants to show the all auditoriums they need to visit auditoriums page directly. From this page, a user can book an auditorium or can know about a detail about all auditorium.

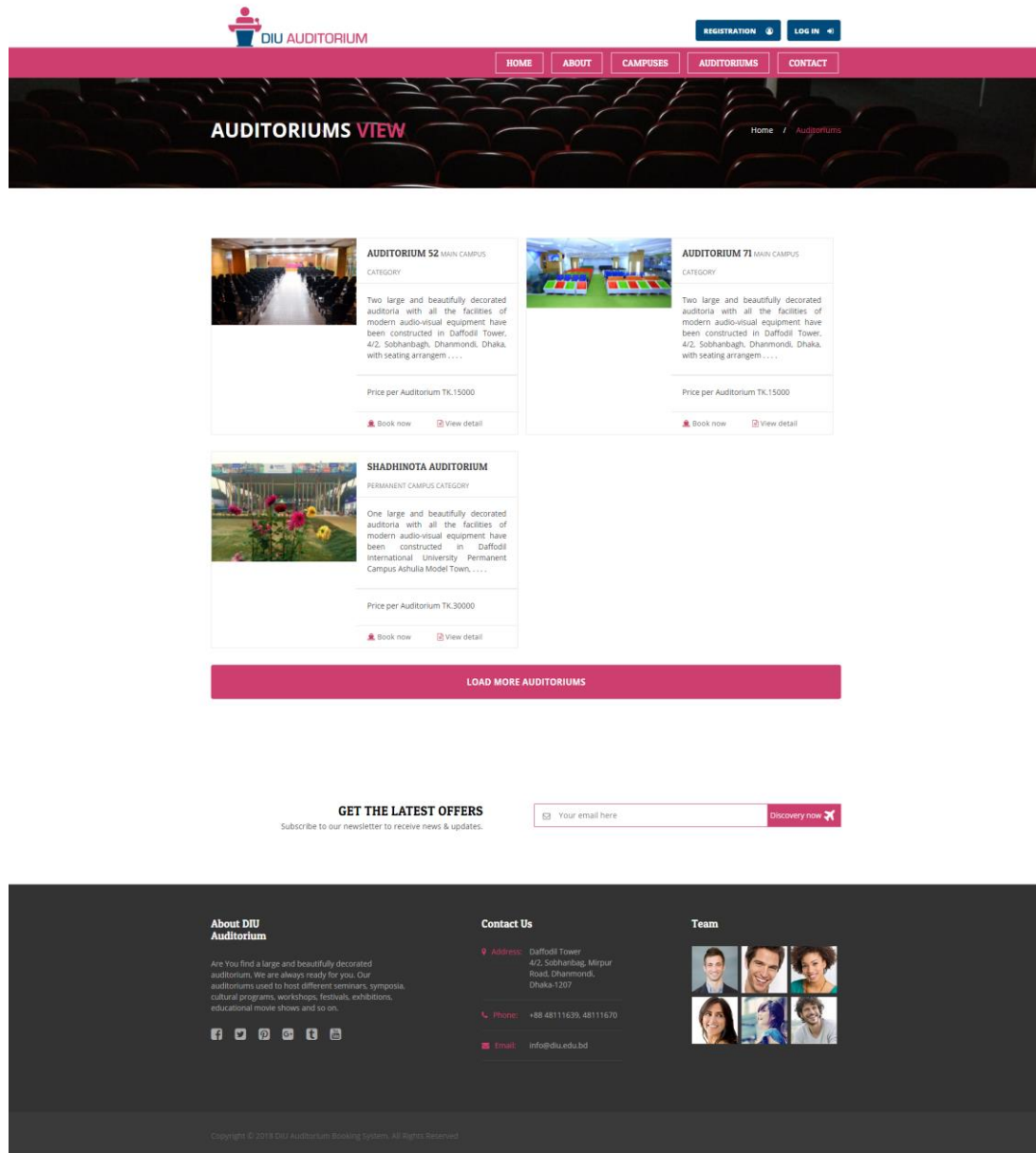


Figure 4.6: Auditorium Page Model for Auditorium Booking System

Figure 4.6 This model allows user to view details about all auditoriums under the university campus. In here, user can know about the price of booking of all DIU auditoriums.

Booking page

The users just one step far away before book an auditorium. They just need to fill the simple form and want to submit the booking request.

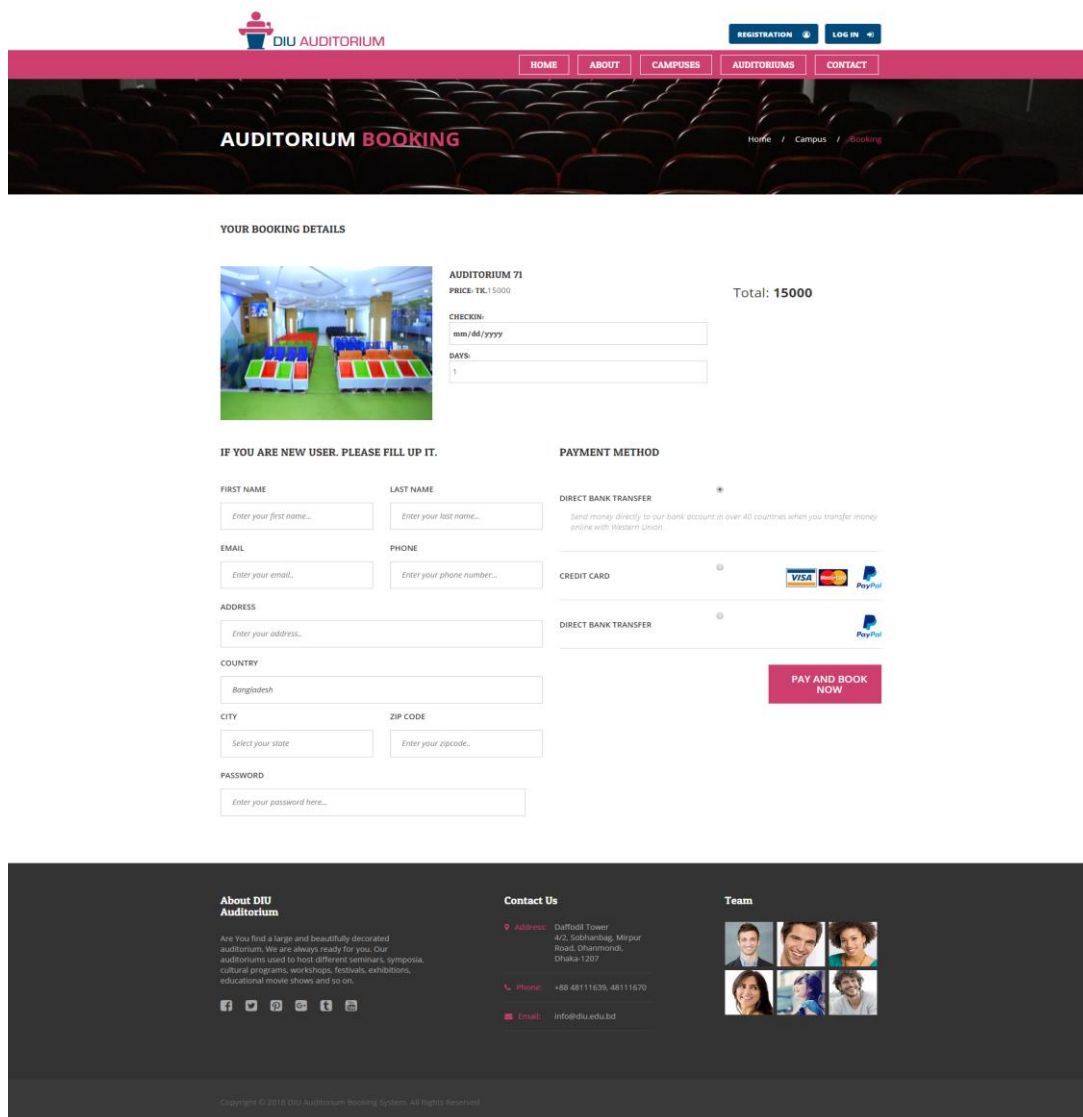


Figure 4.7: Auditorium Page Model for Auditorium Booking System

If he/she is already registered they need not to fill the form just wants to select the booking date and number of days, and the payment method. New user will automatically register after first order. After click on pay and book now, if the auditorium is available the booking will become done. Otherwise unavailable message will come and need to select another date.

Login

If a user already has an account in this system can log in easily using this page. For that, they just need to put their user name/mail and password. After login the user can order auditorium just select the date and number of days. Users get a dashboard to view their orders. The login page in below.

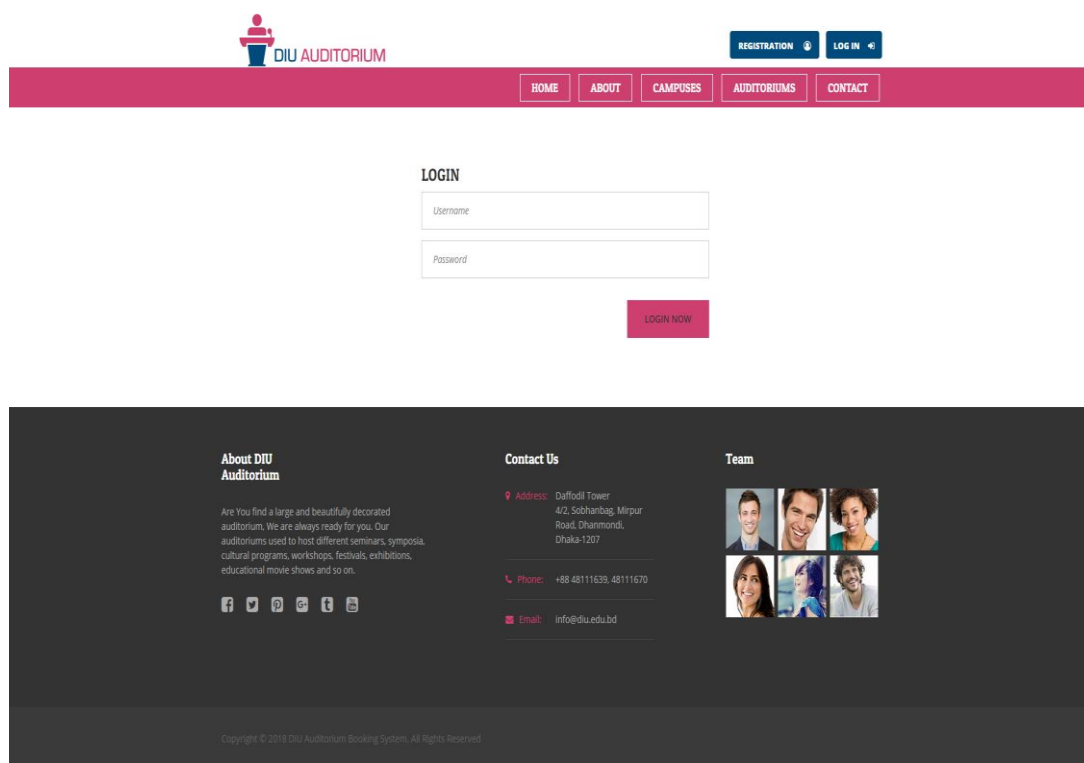


Figure 4.8: Auditorium Page Model for Auditorium Booking System

Registration

Every new user must do their registration for order auditorium. In our system there are two registration process are available. User can fill the registration form directly by click on registration button on navbar. Or, in first order they need to fill the booking form. By fill-up this form the new user can be resisted and also submit their request.

REGISTRATION **LOG IN**

HOME ABOUT CAMPUSES AUDITORIUMS CONTACT

CONTINUE WITH ADDING ACCOUNT

Already have an account? [Login](#) to complete your order

FIRST NAME
Enter your first name...

LAST NAME
Enter your last name...

CONTACT NUMBER
Enter your Contact Number...

EMAIL
Enter your email...

ADDRESS
Address here...

CITY
Enter your City...

ZIP CODE
Enter your Zip Code...

COUNTRY
Enter your country...

PASSWORD
Enter your password here...

SUBMIT

About DIU Auditorium
Are You find a large and beautifully decorated auditorium. We are always ready for you. Our auditoriums used to host different seminars, symposia, cultural programs, workshops, festivals, exhibitions, educational movie shows and so on.

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4/2, Sobhanbag, Mirpur Road, Dhamondi, Dhaka-1207
Phone: +88-48111639, 48111670
Email: info@diu.edu.bd

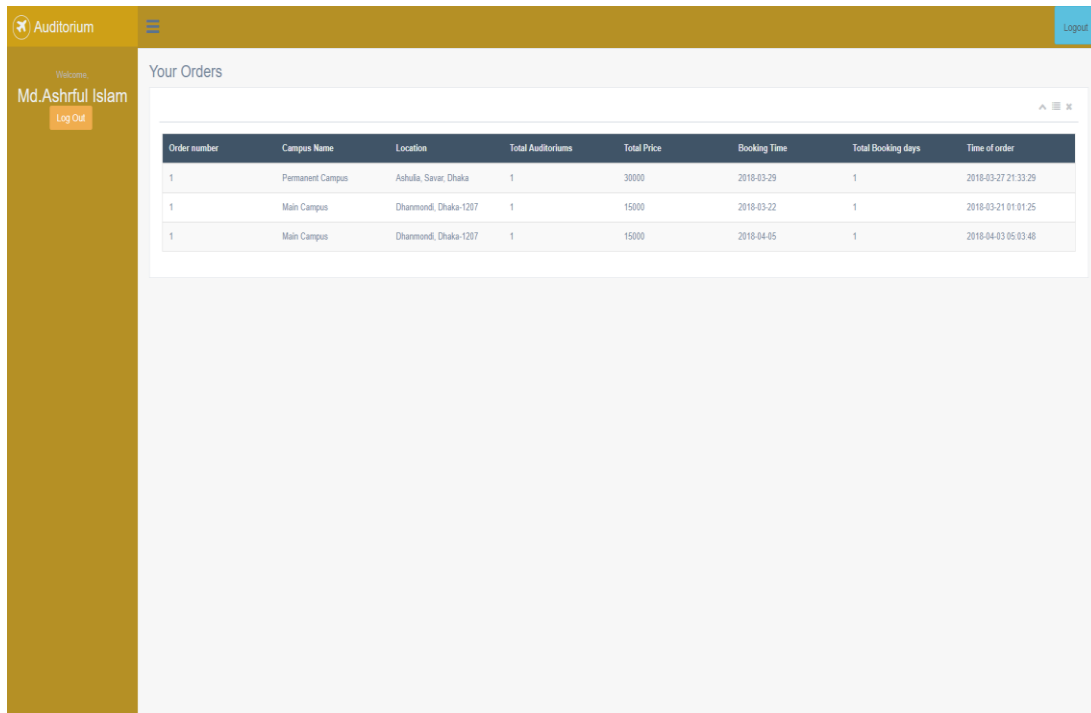
Team

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Figure 4.9: Auditorium Page Model for Auditorium Booking System

Use Dashboard

After log in user see the dashboard. In this page user can view their ordered auditorium list under your orders list, after the admin approve the booking request.



Order number	Campus Name	Location	Total Auditoriums	Total Price	Booking Time	Total Booking days	Time of order
1	Permanent Campus	Ashulia, Savar, Dhaka	1	30000	2018-03-29	1	2018-03-27 21:33:29
1	Main Campus	Dharmoad, Dhaka-1207	1	15000	2018-03-22	1	2018-03-21 01:01:25
1	Main Campus	Dharmoad, Dhaka-1207	1	15000	2018-04-05	1	2018-04-03 05:03:48

Fig 4.10 User Dashboard of DIU Auditorium Booking System

Admin Dashboard

Admin/ authority manage there all DIU auditorium booking system from this dashboard. For that a admin need to login first. After that dashboard interface will come. From the dashboard admin can add new, view and delete campuses and auditoriums. They can see the order requests which is placed by the user. Can approve or cancel the request. They can also see the contact list. A admin can add new admin from the dashboard. The admin dashboard is the heart of the system.

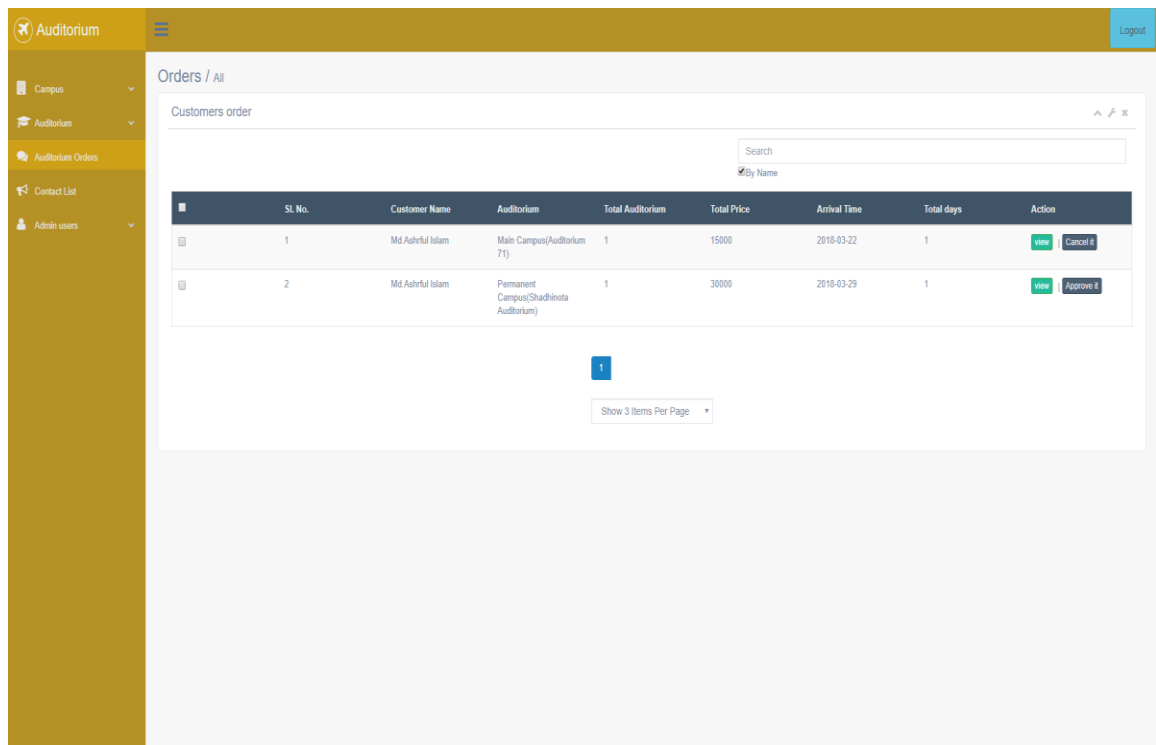


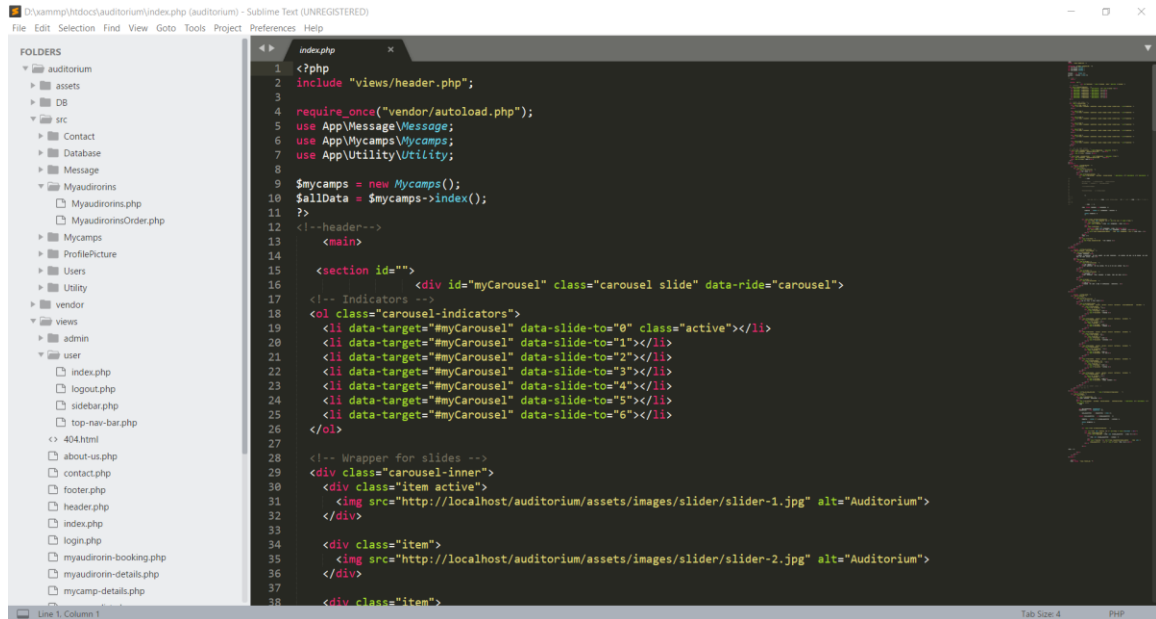
Figure 4.11: Admin Dashboard Page Model of Auditorium Booking System

4.2 Back-end Design

A back-end web developer is responsible for server-side web application logic and integration of the work front-end developers do. Back-end developers are usually write the web services and APIs used by front-end developers and mobile application developers. Writing a good job description and a job ad for a back-end developer requires proper separation of concerns. Posting a generic web developer description in your job ad, when you are looking for an advanced back-end web developer, will bring numerous applications from people who are specialized in building front-end user interface, or web designers who have absolutely no knowledge about programming.

There are technologies and knowledge that are common to all web developers, and some that are specific to back-end developers. This article will provide you with a sample back-end web developer job description that will help you write a perfect job ad and assure that you easily find and hire the person that matches your specific criteria. [2]

Here we include some code which work totally back in the web site. Here some code



```
1 <?php
2 include "views/header.php";
3
4 require_once("vendor/autoload.php");
5 use App\Message\Message;
6 use App\Mycamps\Mycamps;
7 use App\Utility\Utility;
8
9 $mycamps = new Mycamps();
10 $allData = $mycamps->index();
11 ?>
12 <!--header-->
13 <main>
14
15 <section id="">
16     <div id="myCarousel" class="carousel slide" data-ride="carousel">
17         <!-- Indicators -->
18         <ol class="carousel-indicators">
19             <li data-target="#myCarousel" data-slide-to="0" class="active"></li>
20             <li data-target="#myCarousel" data-slide-to="1"></li>
21             <li data-target="#myCarousel" data-slide-to="2"></li>
22             <li data-target="#myCarousel" data-slide-to="3"></li>
23             <li data-target="#myCarousel" data-slide-to="4"></li>
24             <li data-target="#myCarousel" data-slide-to="5"></li>
25             <li data-target="#myCarousel" data-slide-to="6"></li>
26         </ol>
27
28         <!-- Wrapper for slides -->
29         <div class="carousel-inner">
30             <div class="item active">
31                 
32             </div>
33
34             <div class="item">
35                 
36             </div>
37
38             <div class="item">
```

Figure 4.12: Back-end Code of Auditorium Booking System

4.3 Interaction Design and UX

Interaction design is an important component within the giant umbrella of user experience (UX) design. In this article, we'll explain what interaction design is, some useful models of interaction design, as well as briefly describe what an interaction designer usually does.

Data flow Diagram

Data flow Diagram (DFD) is a graphical representation of the flow of data through an information system, modelling its process aspects. A Data Flow Diagram is often used as a preliminary step to create an overview of the system. Which can later be elaborated. Data Flow Diagram can also be used for the visualization of data processing. [3]

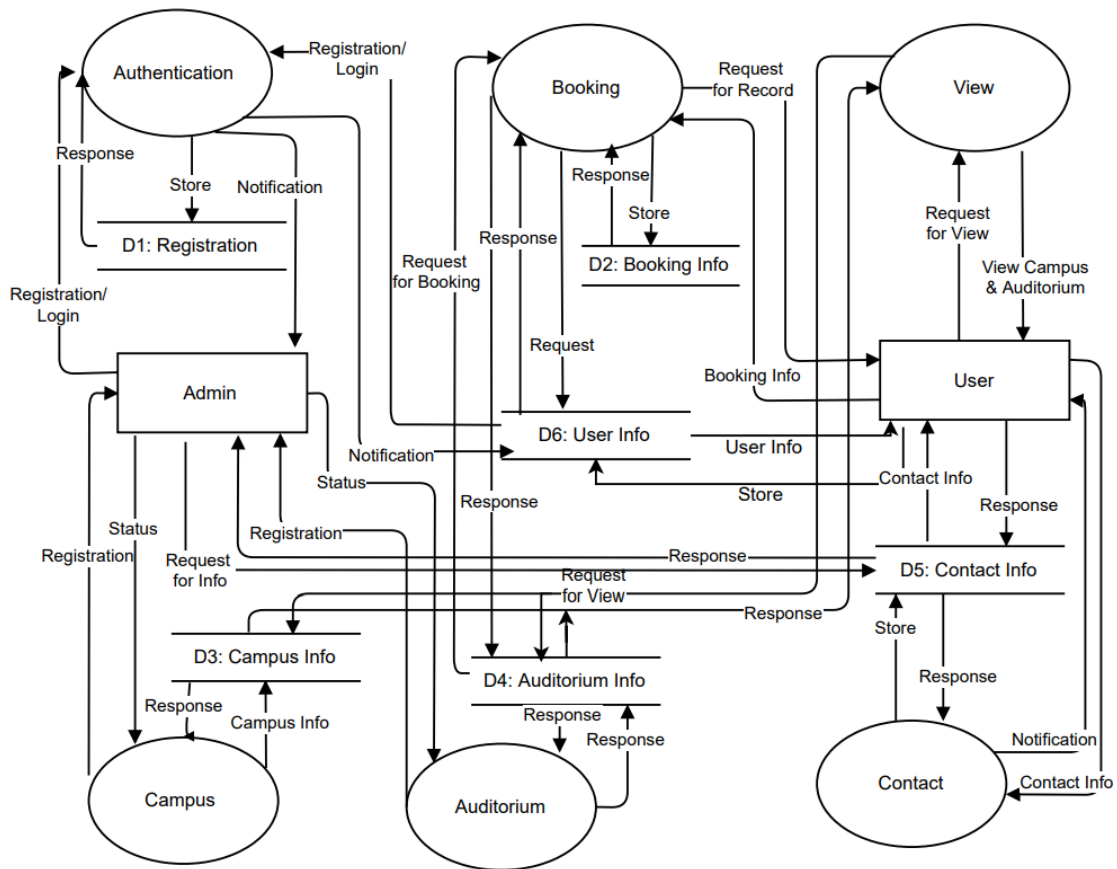


Figure 4.13: Data Flow Diagram for whole system.

A Data Flow Diagram basically shows what kind of data or information's will be input to and output from the system, where the data will come from and go to and where the data will be stored. It does not show information about the timing of process or information about whether processes will operate in sequence or in parallel.

Figure 4.13 shows the data flow diagram of the system. Insured customer claim his submit which is recorded and analysed. The account database provides customer information then. Customer also get their mail. Any query and message are send to admin or claim specialist and he replies of the query. Customer info also update on the database.

4.4 Implementation Requirements

A Project development and implementation technology can be mapped out using a project time line. It is a process for defining designing, testing and implementation of a software application or program. Acquisition of their party tools like dependency manager, database system all can be included for customizing the total system.

4.5 Technology

Technologies that we used to design and develop our system are as follows. Now in the age of science we not thing any work without the touch of technology. In that technology make our life easy to easier.

HTML

HTML stands for Hyper Text Markup Language. It is the standard markup language for making web pages as well as web development. HTML works with CSS and JavaScript to make web pages more user friendly.

User interfaces for mobile, tablet, computers and all other devices are designed and represented by HTML. HTML pages run in web browsers. Information about any web base system are shown by HTML pages. We used the latest real ease of HTML5 to create web system. [4]

CSS

CSS stands for Cascading Style Sheets is a language to style and manipulate HTML pages. Along with HTML and JavaScript, CSS is a corner stone technology used by most web systems create visually engaging web pages, user interface for web application as well as mobile application. We have used CSS3 for our system design.

CSS is helped for make our project device free. Also, it's called responsive design. [5]

JavaScript

JavaScript is a scripting language that is high level dynamic, untyped and interpreted programming language.

It is one of the most common technologies for web design and development. All modern browsers support JavaScript. We used it for making our web more dynamic. And more effect we use for good out looking and get data finding to easy.

MySQL Database (PDO)

MySQL Database is open source relational database management system. MySQL is used to create database for store any information's. MySQL queries are used with PHP to do MySQL operation. We used MySQL PDO (PHP Data Objects) for creating and designing our database for the system.

PHP

PHP stands for Hyper Text Pre-processor, is a server site scripting language. The most common use for PHP is to develop web apps with HTML, CSS, JavaScript, and MySQL. PHP also use for general purpose programming language. PHP code embedded into html code. Its server site language.

Bootstrap

Boot strap is free open source front-end web framework that is used to design websites and web application. HTML and CSS is used to create Booth strap frame work. It makes the web interfaces more user friendly. We used Boot strap 3.3.7 for our system. [6]

4.6 Development Tools

Developments tools are required software that we used to design and develop our systems. We have used two types of software's to complete our total system. They are as follows.

Sublime Text

Sublime Text is a proprietary cross-platform source code editor with a Python application programming interface (API). It natively supports many programming languages and mark-up languages, and functions can be added by users with plugins, typically community-built and maintained under free-software licenses.

Net Beans

Net Beans is a cross platform smart software development platform. Net Beans is written in Java. It was primarily intended for development in Java. Now it is used for other development language like PHP, C/C++ and HTML5. We used Net Beans for our backend programming because Net Beans has excellent plugging for PHP development. [7]

Chapter 5

Implementation and Testing

5.1 Implementation of Database

- Group wise SQL queries should be block with a single transaction to maintain integrity.
- Needed to create Database user by role.
- According to role of user, DBA will assign the permission for tables individually (If needed).
- DBMS system follows sequential process to handle a DB request. Process demonstrated bellow (Execution and Parsing Process):
 - SQL request goes to SQL Parser and stores it into code cache.
 - The parsed code goes to SQL executer.
 - Then the request checks the user permission for respective table.
 - After that transaction being start.
 - Until finish the transaction respected table's stores in cache.
 - Once transaction done, the updated information of table being stores in Disks.

5.2 Implementation of Front-end Design

In this web app are implement by the PHP language. This is the popular system for implement any project. And in our project, this is more need this system. Its also setup a more secure project for any other project. And it's more important for our project that all data is more secure. Font-end design is designed by HTML, CSS, Bootstrap, jQuery etc.

5.3 Implementation of Interactions

Our system has two types of user: one is Admin and another is user. For both type of user login is required. For Admin there are several functionalities. They are admin can

search a user, admin can send message to specific customer. From More Control Panel admin can see notifications send by user, admin can also accept or decline user request.

5.4 Testing Implementation

Testing is part and parcel for launching a project. The main goal for testing is to check quality validation reliability, effective for user and overall performance of the system.

We have completed several tastings for our system. They are as follows.

Functionality Testing

- To verify there is no dead pages or invalid redirects.
- To check validations on each page
- To verify the work flow of the system.
- To verify data integrity.

Usability Testing

- For navigation and controls.
- Checking contents.
- Checking user intuition.

Interface Testing

- Performed to verify the flow of data from one stage to another.
- Performed to verify the user interface.

Compatibility Testing

- For checking browser compatibility.
- For checking we there mobile friendly or not.

5.5 Test Results and Reports

I performed required test cases according to development criteria. Different test cases have made for a specific process and stored all test case results accordingly to interpret all result. This will help to make decision with better level of accuracy.

We have made cycle wise and automated testing to make better decision. Once test results are deliverable, then it has been released. A test result should be evaluated according to DOD (Definition of done) of specific part of a project.

Chapter 6

Conclusion and Future Scope

6.1 Discussion and Conclusion

The main goal of this project was to make a total web-based system for all kind of users who are thinking about for booking DIU auditorium. The project goal was also to facilitate booking any DIU auditorium easily from anywhere of our country. The system works with internet connection from daily use electronic devices like smart phones, tablet, fabled, computers etc.

The project is time saving, effective for users as well as going to digitalize the auditorium booking system. The dynamic system will provide from our application is that, the users simply booking DIU auditorium in online and instantly can fulfil their payment using our application. Users will also be updated using the system with any kind of information related with their auditorium booking system.

The Auditorium Booking System is designed with latest technology. The system is also designed to update according to user's demand so the system will be challenging to deal in any kind of situation in future.

6.2 Limitations

The project has many facilities. But with facilities the project also has some limitations too. They are as follows

- As the project is online based so the system is fully dependent on internet.
- The project will not work if the server is down.
- This project is not effective in remote areas with limitation of internet.
- Information may be lost for unwanted incidence like hacking.
- Hard to operate for illiterate people.
- Currently have no facility to compare with other company.

6.3 Scope for Further Developments

Future works for the project are as follows

- We will add more facilities for auditorium which will come from the DIU authority.
- Comparing system with multiple auditorium system.
- Dynamic dependency search for make the system more user friendly.
- Develop the project using frame work.
- Add upcoming and ongoing events which the users can view.
- In further add a system, a user's will have booked upcoming events seat.

User has several functionalities they are can update his/her payment info, details can pay his/her payment and also can see his/payment history, also he/she can request for update information to admin, user can cancel his/her booking.

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