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SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)

Submitted in partial fulfillment of the requirements for the award of

Bachelor of Technology Degree in

Information Technology

By

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(Reg. No. 39120005)



DEPARTMENT OF INFORMATION TECHNOLOGY
SCHOOL OF COMPUTING

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(Established under Section 3 of UGC Act, 1956)

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SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
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Accredited with Grade “A” by NAAC

(Established under Section 3 of UGC Act, 1956)

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BONA FIDE CERTIFICATE

This is to certify that this Project Report is the Bonafide work of **AISHWARYALAKSHMI.K (Reg. No: 39120005)** who carried out the project entitled “**Party Hall Booking App Using Angular JS**” under my supervision from September 2021 to November 2021.

Internal Guide

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Submitted for Viva voce Examination held on _____

Internal Examiner

External Examiner

DECLARATION

I, AISHWARYALAKSHMI.K (Reg. No. 39120120) hereby declare that the Project report entitled **"Party Hall Booking App Using Angular JS"** done by me under the guidance of **Dr. V. MARIA ANU**, is submitted in partial fulfillment of the requirements for the award of Bachelor of technology degree in Information Technology.

DATE:

PLACE:

SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey my thanks to **Dr. T.SASIKALA, M.E., Ph.D., Dean, School of Computing** and **Dr. SUBHASHINI, M.E., Ph.D., Head of the Department, Dept. of Information Technology** for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Project Guide **Dr. V. MARIA ANU**, for her valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express my thanks to all Teaching and Non-teaching staff members of the **Department OF INFORMATION TECHNOLOGY** who were helpful in many ways for the completion of the project.

TRAINING CERTIFICATE



ABSTRACT

Angular is a platform and framework for building single-page client applications using HTML and TypeScript. It implements core and optional functionality as a set of TypeScript libraries that we import into our applications. The architecture of an Angular application relies on certain fundamental concepts. The basic building blocks are the NgModules. In this project many components are created and routes are been set up between each Components for the dynamic motion of one page to another page. In this Party Hall Booking App, the Client who has already have an account, can book the hall according to their needs and those who are not having an account, can create themselves and can be able to login. Once after they login, they have to select the party timings. The next step is the client must agree with all terms and conditions of the management and thereby their booking will be done. Once after they booked the hall the client can logout, and they will be directed to the login page again. Another feature of this app is admin user can add, edit, search and delete the registered client's information via the users management for the backend purpose, the app is connected to the mongodb so that the information of the customer will be displayed in the mongo database. The admin actions will not only be carried out in front end, but also in backend i.e. in mongo database.

TABLE OF CONTENTS

Chapter No.	TITLE	Page No.
	ABSTRACT	i
	LIST OF FIGURES	ii
	LIST OF TABLES	iii
	LIST OF ABBREVIATIONS	iv
1.	INTRODUCTION	1
	1.1 WHAT IS ANGULAR JS?	1
	1.2 ROLE OF HTML, CSS & JS IN ANGULAR	2
	1.3 REQUIREMENTS FOR ANGULAR PROJECT	3
2.	PARTY HALL BOOKING APP	4
	2.1 OVERVIEW	4
	2.2 FUNCTIONAL REQUIREMENTS	4
	2.3 COMPONENTS	5
	2.4 OVERVIEW OF COMPONENTS	5
	2.5 BACKEND	23
3.	SUMMARY AND CONCLUSIONS	
	REFERENCE	24

LIST OF FIGURES

FIGURE No.	TITLE	PAGE No.
1.1	Login Page	8
1.3	Hall Registration Page	9
1.5	Terms and Conditions Page	10
1.6	User Management Page	11
1.7	Logout Page	15
1.8	Mongodb connection	16

LIST OF TABLES

TABLE No.	TITLE	PAGE No.
2.1	Login Fields	8
2.2	Register/Sign-up Fields	7
2.3	Hall Registration Fields	8
2.4	Membership Fields	9
2.5	Add client Fields	11
2.6	Edit client Fields	12

LIST OF ABBREVIATIONS

Mongodb	-	Mongo database
App	-	Application
Chars	-	Characters
No's	-	Numbers
Acc	-	According
JS	-	Java Script

INTRODUCTION

What is Angular Js?

The AngularJS framework works by first reading the Hypertext Mark-up Language (HTML) page, which has additional custom HTML attributes embedded into it. Angular interprets those attributes as directives to bind input or output parts of the page to a model that is represented by standard JavaScript variables. The values of those JavaScript variables can be manually set within the code, or retrieved from static or dynamic JSON resources.

AngularJS is built on the belief that declarative programming should be used to create user interfaces and connect software components, while imperative programming is better suited to defining an application's business logic. The framework adapts and extends traditional HTML to present dynamic content through two-way data-binding that allows for the automatic synchronization of models and views. As a result, AngularJS de-emphasizes explicit Document Object Model (DOM) manipulation with the goal of improving testability and performance.

AngularJS implements the MVC pattern to separate presentation, data, and logic components. Using dependency injection, Angular brings traditionally server-side services, such as view-dependent controllers, to client-side web applications. Consequently, much of the burden on the server can be reduced. AngularJS directives allow the developer to specify custom and reusable HTML-like elements and attributes that define data bindings and the behaviour of presentation components. Some of the most commonly used directives are:

Since **ng-*** attributes are not valid in HTML specifications, **data-ng-*** can also be used as a prefix. For example, both **ng-app** and **data-ng-app** are valid in AngularJS.

ng-app

Declares the root element of an AngularJS application, under which directives can be used to declare bindings and define behavior.

ng-aria

A module for accessibility support of common ARIA attributes.

ng-bind

Sets the text of a DOM element to the value of an expression. For example, `<span ng-bind="name"></span>` displays the value of 'name' inside the span element. Any change to the variable 'name' in the application's scope reflect instantly in the DOM.

ng-class

Conditionally apply a class, depending on the value of a boolean expression.

ng-controller

Specifies a JavaScript controller class that evaluates HTML expressions.

ng-if

Basic if statement directive that instantiates the following element if the conditions are true. When the condition is false, the element is removed from the DOM. When true, a clone of the compiled element is re-inserted.

ng-init

Called once when the element is initialized.

ng-model

Similar to **ng-bind**, but establishes a two-way data binding between the view and the scope.

Role of HTML, CSS & JS in Angular:

- A webpage can contain headings, paragraphs, images, videos, and many other types of data. Front end developers use the HTML element to specify what kind of information each item on a webpage contains — for instance, the “p” HTML element indicates a paragraph. Developers also write HTML language code to specify how different items relate to one another in the page’s overall structure or document structure.
- CSS is used for defining the styles for web pages. It describes the look and formatting of a document which is written in a markup language. It provides an additional feature to HTML. ... CSS helps us to control the text color, font style, the spacing between paragraphs, sizing of columns, layout designs, and many more. CSS provides these capabilities through a technical model based on a hierarchical scope of effect, the separation of style from content, and a well-defined set of published standards.
- JavaScript is the most popular and most widely developed programming language ever existed. JavaScript is a must-have for Web developers, Front-end/ Back-end developers, Mobile / Desktop developers, Graphics / Game developers and even for Full Stack developers as well.
- Angular is a platform and framework for building single-page client applications using HTML and TypeScript. Angular is written in TypeScript. It implements core and optional functionality as a set of TypeScript libraries that you import into your applications.
- AngularJS provides some amazing capabilities out of the box, and can convert your non-trivial jQuery based apps into something more powerful and yet more simple to maintain. Some frameworks simply bundle together the existing tools which make app development very difficult. However, Angular was carefully engineered to ensure that every tool works optimally and delivers great results.
- Developers find Angular very effective in terms of creating dynamic, single page application, and supporting MVC(Model-View-Controller) programming structure. At a present span of time, in the competitive business environment, Angular has emerged as the superhero due to its intuitiveness and rich feature

Requirements of Angular Project:

- Install Angular CLI
- Create a workspace and initial application
- Run the application

Modules, components and services are classes that use *decorators*. These decorators mark their type and provide metadata that tells Angular how to use them.

- The metadata for a component class associates it with a *template* that defines a view. A template combines ordinary HTML with Angular *directives* and *binding mark-up* that allow Angular to modify the HTML before rendering it for display.
- The metadata for a service class provides the information Angular needs to make it available to components through *dependency injection (DI)*.

Angular *NgModules* differ from and complement JavaScript (ES2015) modules. An NgModule declares a compilation context for a set of components that is dedicated to an application domain, a workflow, or a closely related set of capabilities. An NgModule can associate its components with related code. Every Angular application has at least one component, the *root component* that connects a component hierarchy with the page document object model (DOM). Each component defines a class that contains application data and logic, and is associated with an HTML *template* that defines a view to be displayed in a target environment.

The @Component() decorator identifies the class immediately below it as a component, and provides the template and related component-specific metadata.

A template combines HTML with Angular mark-up that can modify HTML elements before they are displayed. Template *directives* provide program logic, and *binding mark-up* connects your application data and the DOM.

PARTY HALL BOOKING APP

Overview:

This project aims to maintain the information about the clients those who are in need of party hall . It will help the hall authorities to manage details of the client.

Hall Admin will be able to register themselves and search data of the clients using the search bar and for the admin purpose, user management portal will be also available.

Only admin will be able to update client's information. There are many components like login. Once client register themselves, they will be directed to various fields and finally the booking will be done. This app is done with HTML, CSS, JS and the main part is the angular js.

The Party Hall Booking App designed by Team AAA will be very easy and a delicate for the client to book their time slot. Now a days, internet is the most widely used network in modern world and no one is preferring to go out and booking their slots. For their easy purpose, Team AAA made this Party Hall Booking App, so that users can book by sitting in their home itself.

Functional Requirements:

To build an angular application, the main thing needed is the components where are those application routing process occurs. The components used in this application are listed below:

COMPONENTS:

- ❖ Login
- ❖ Register / Sign-up
- ❖ Hall Registration
- ❖ Terms and Conditions
- ❖ User Management Actions (for admin purpose)
 - Add User
 - Edit User
 - Search User
 - Delete User
- ❖ Logout

OVERVIEW OF COMPONENTS:

- Login portal:

The login portal is used for the registered clients to login into the app.
The admin also can login to do the user management related activities.

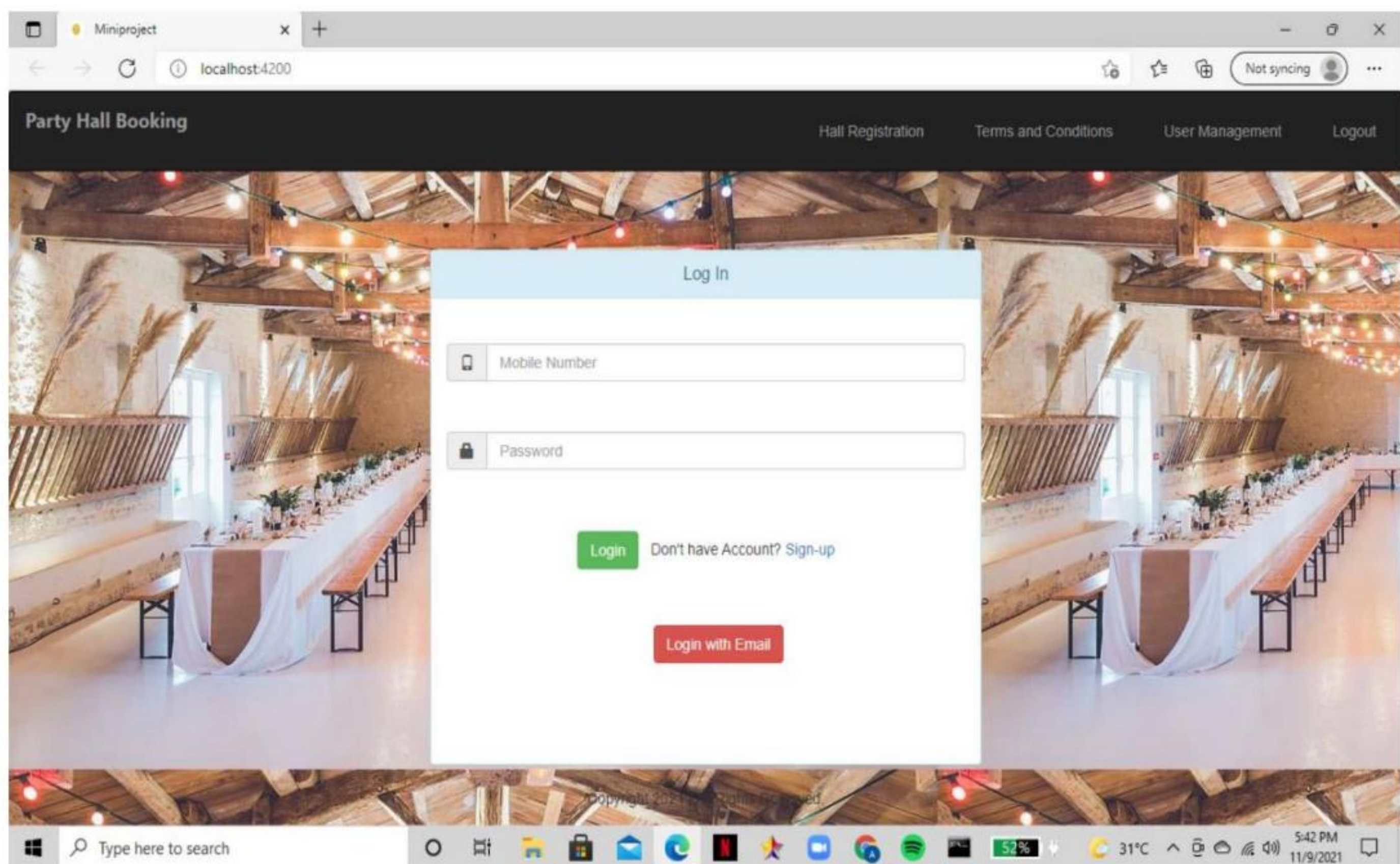


Fig.1.1 : Login Page

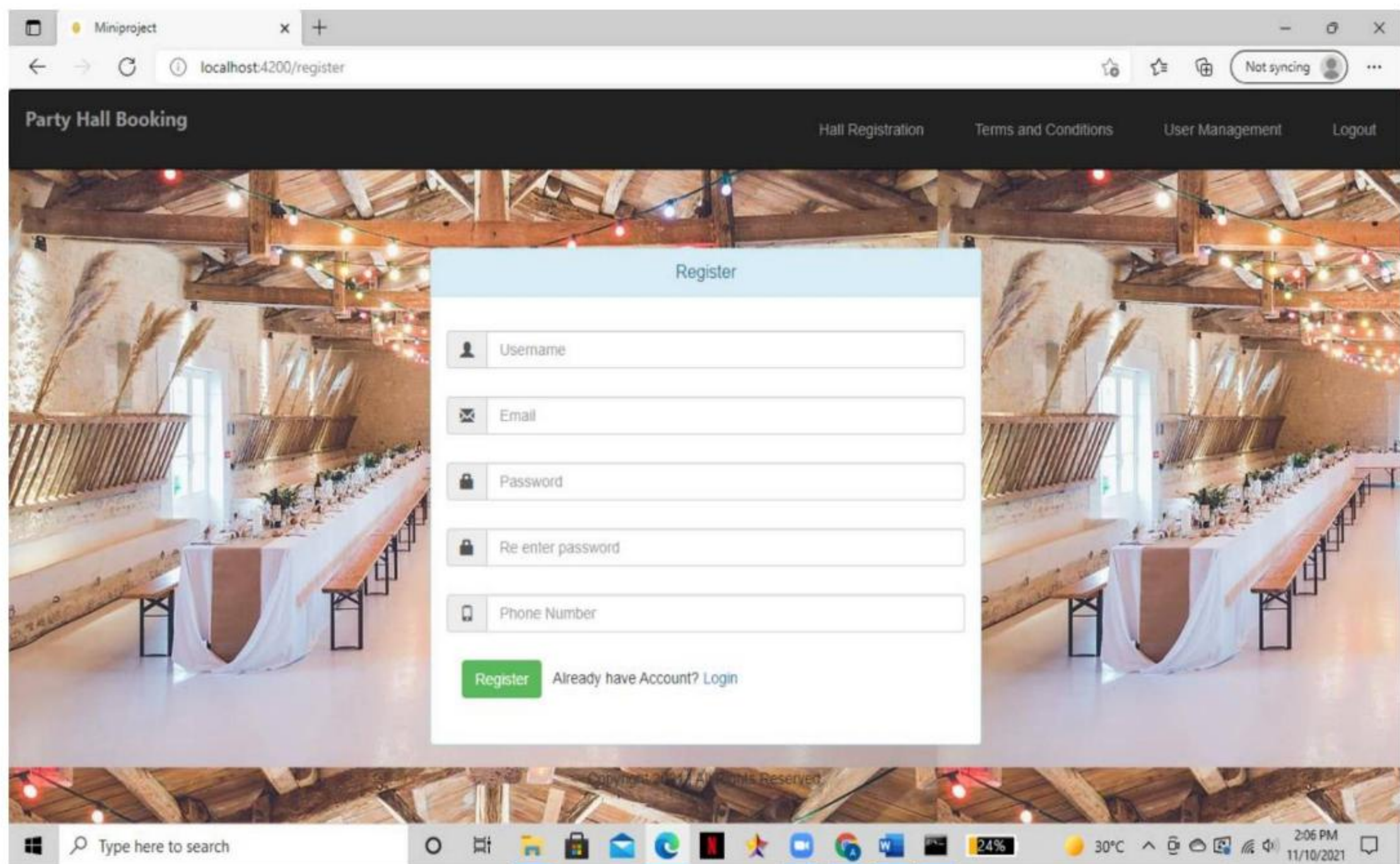


Fig 1.2 : Register Page

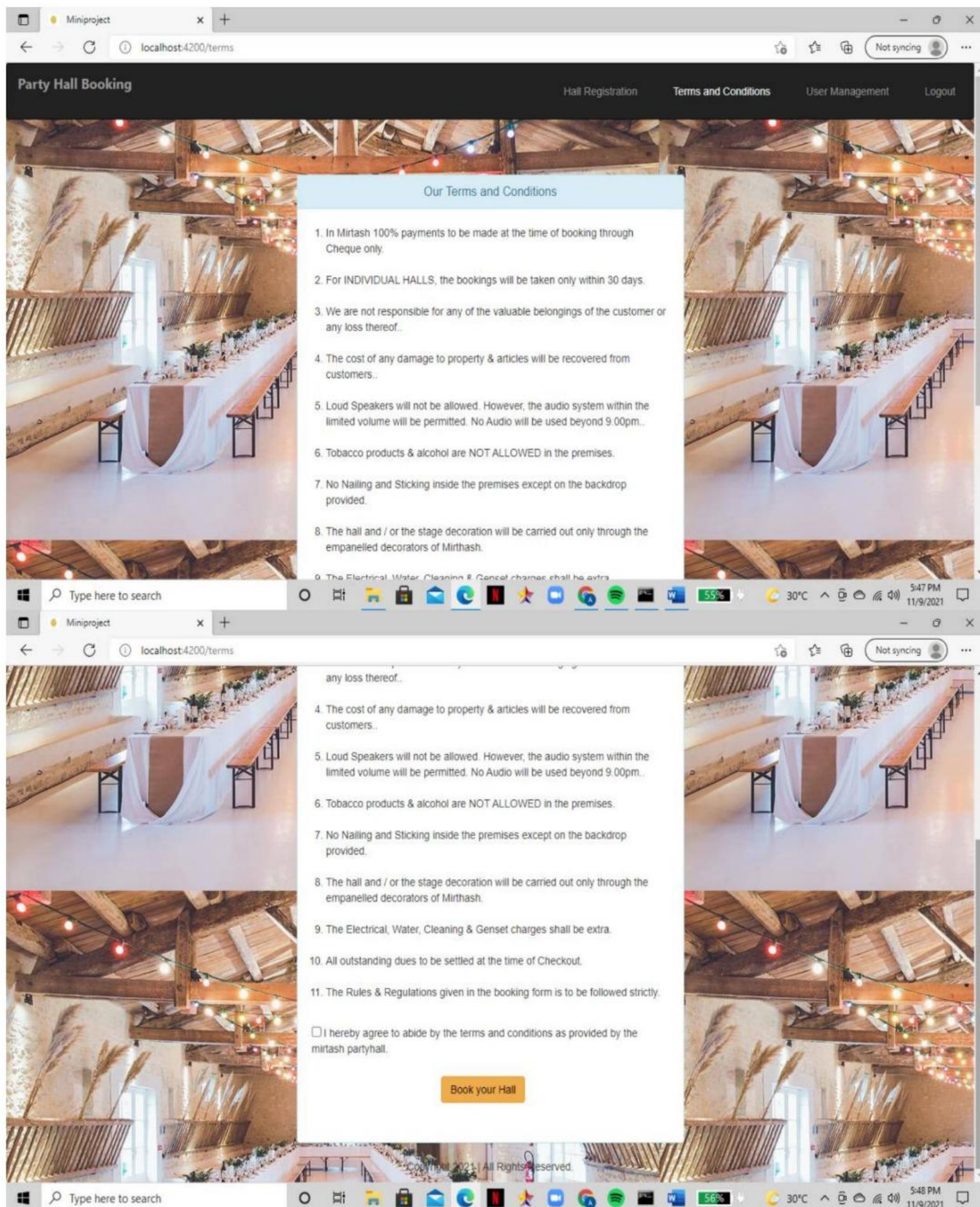


Fig 1.4 : Terms and Conditions

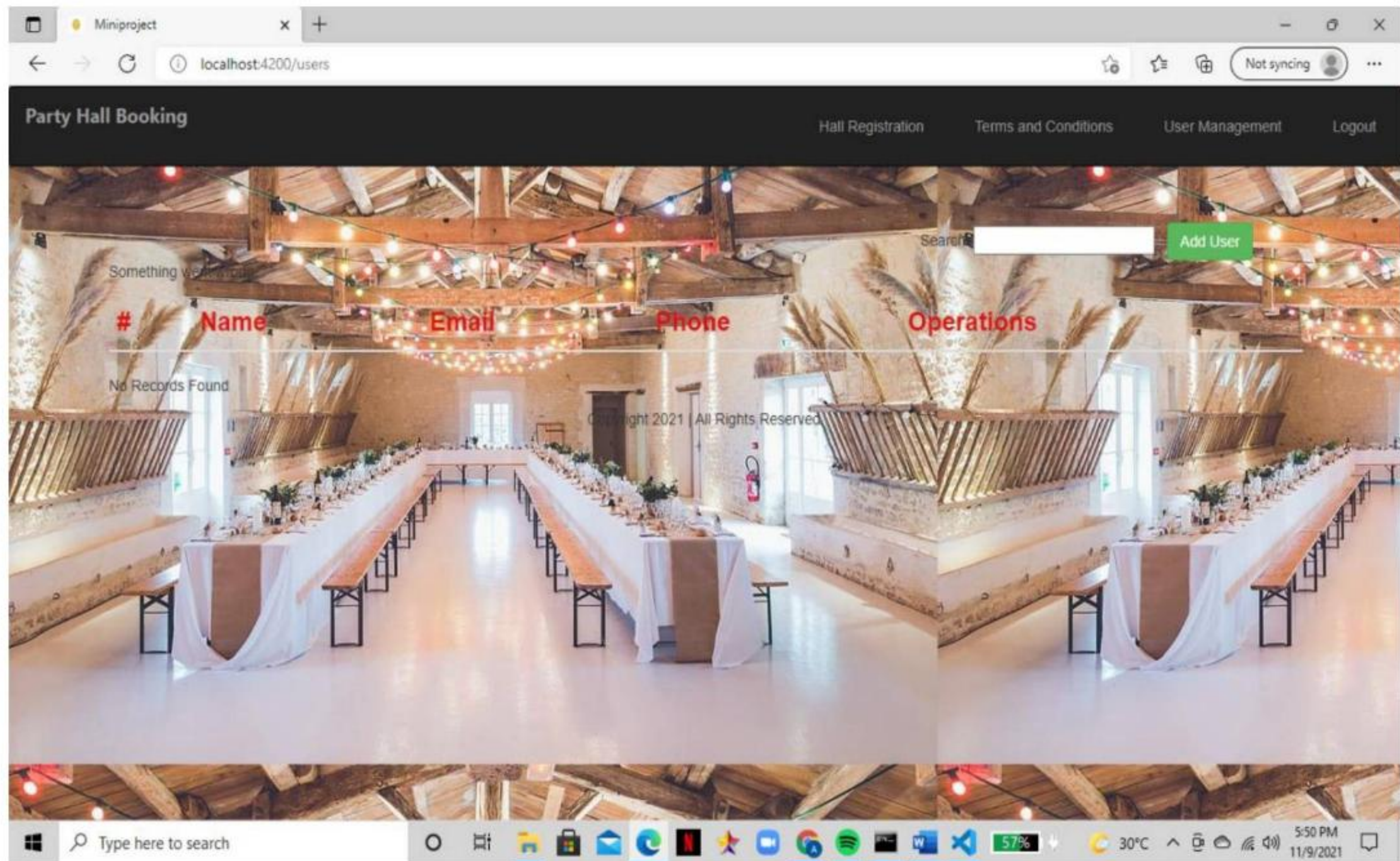


Fig 1.5 : User Management

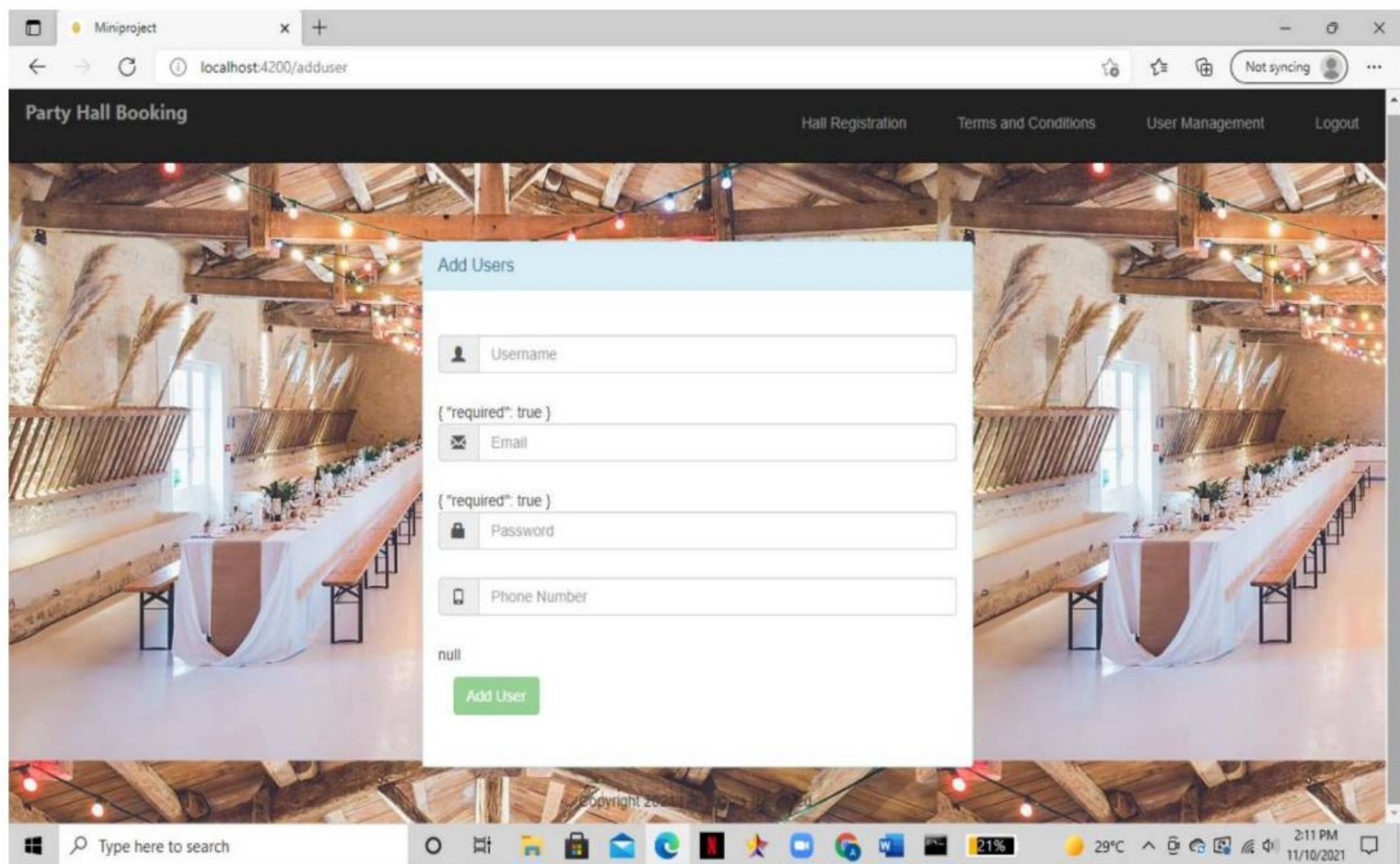


Fig 1.5.1 : Add Client Page

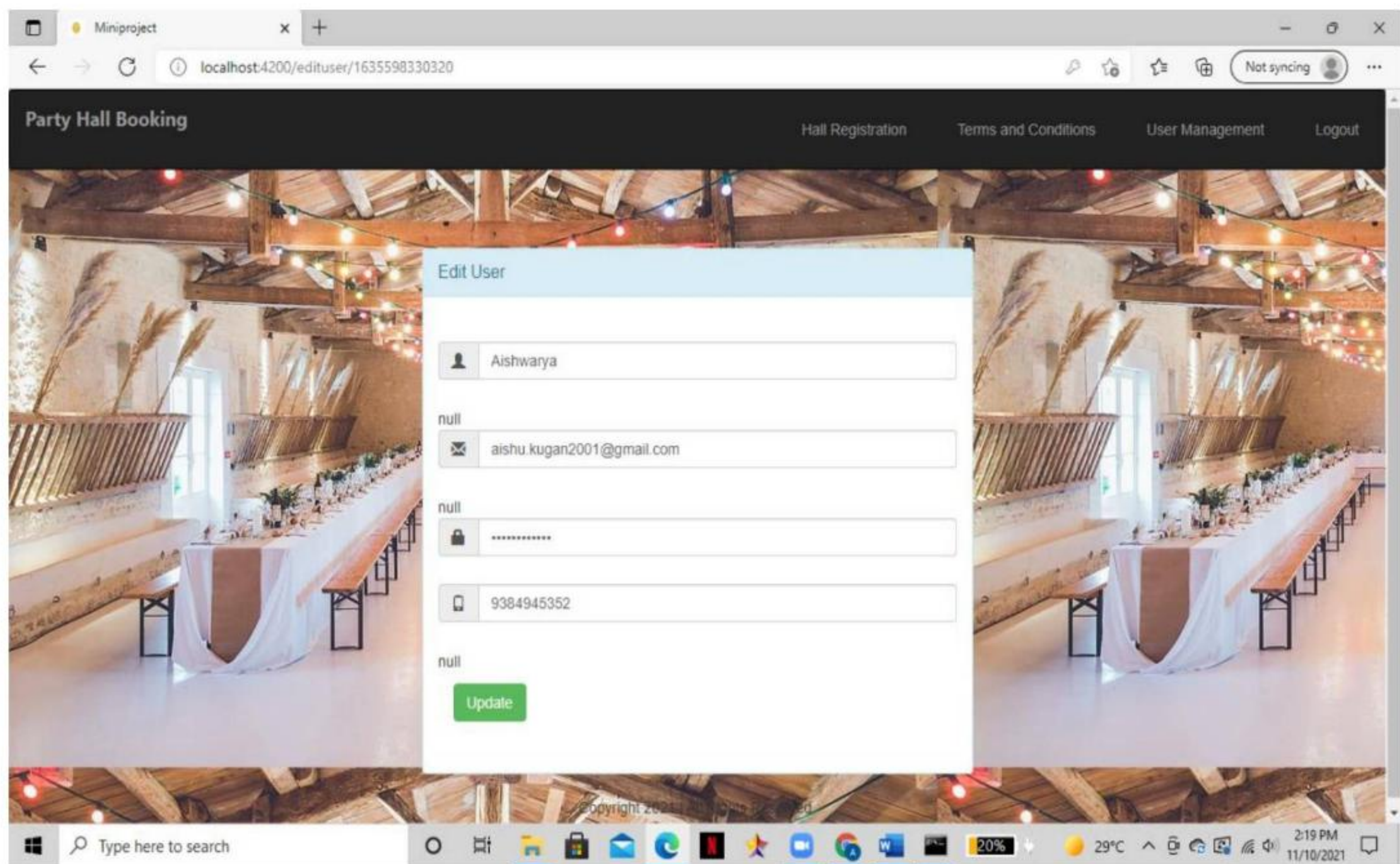


Fig 1.5.2 : Edit Client Page

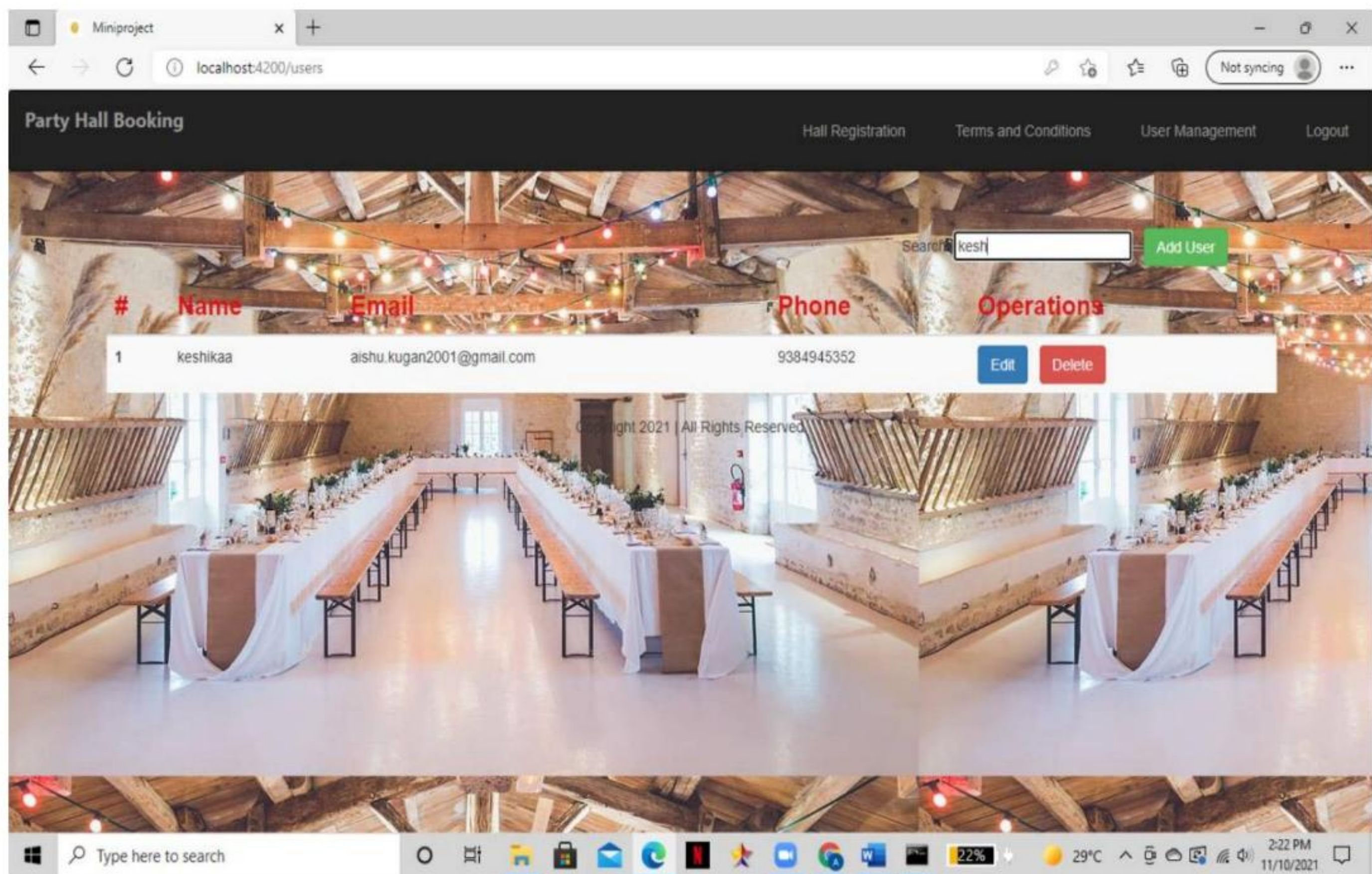


Fig 1.5.3 : Search Client Page

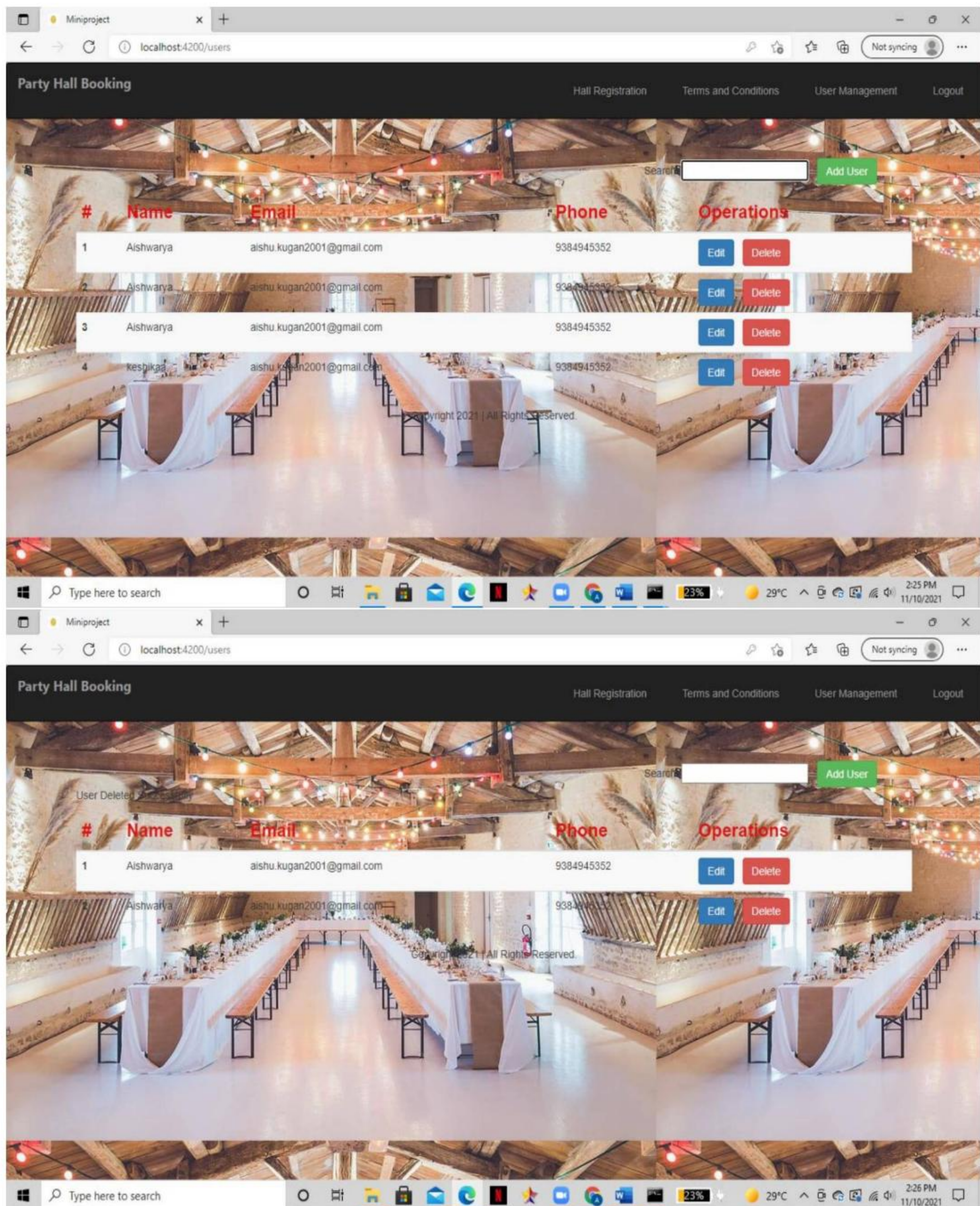


Fig 1.5.4 : Delete Client Page

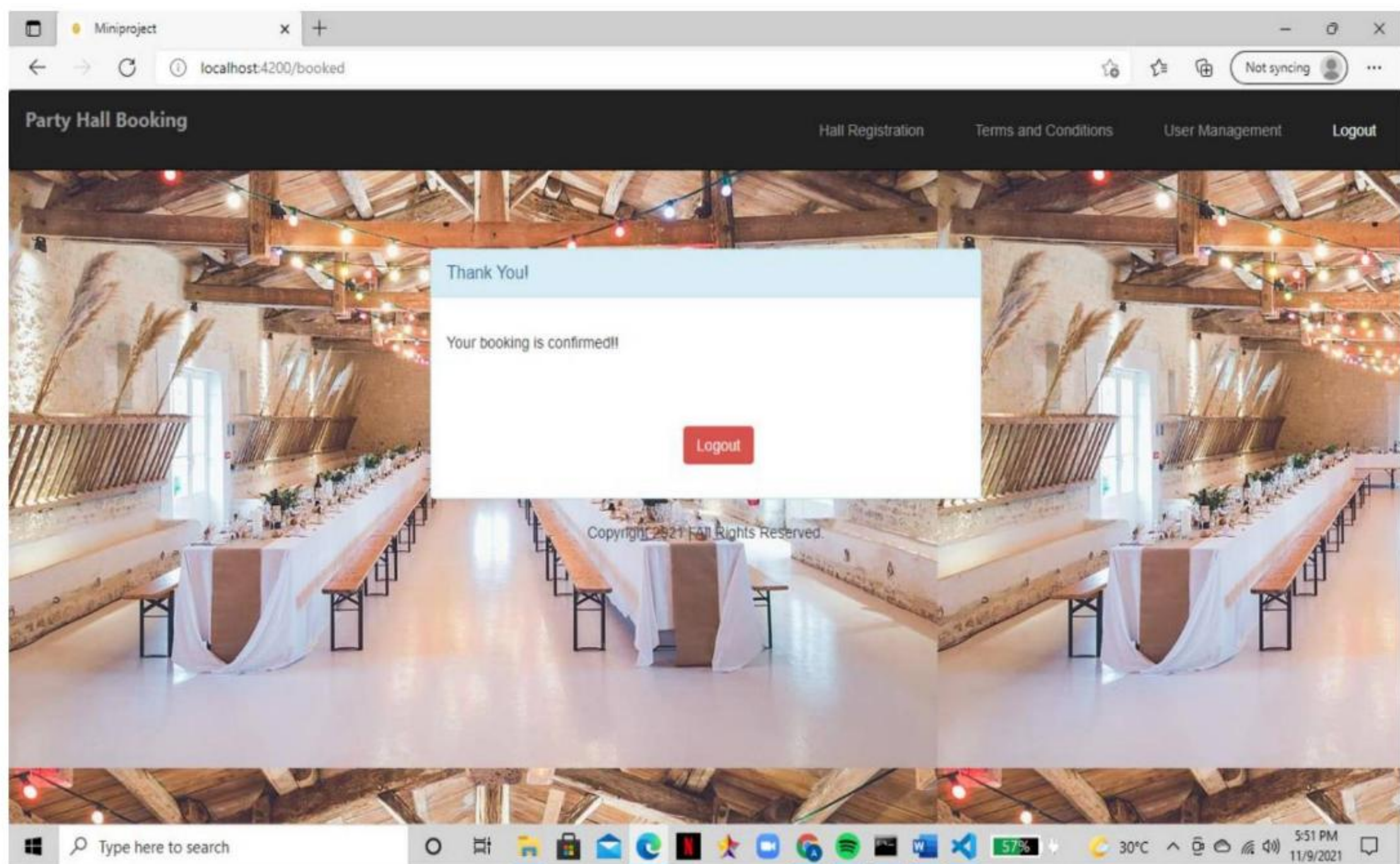


Fig 1.6 : Logout Page

- **BACKEND:**

The backend duties involve the mongodb connection and a service. For the backend actions, a java script document is done in backend and thereby the mongodb cluster is connected to the application.

For this to be carried out, first of all a mongodb cluster should be created and a database should be made and thereby it should be connected with backend through the mongodb database connection link.

A service named user service is imported to carry out all the backend function and call back functions made to get the responses of the server.

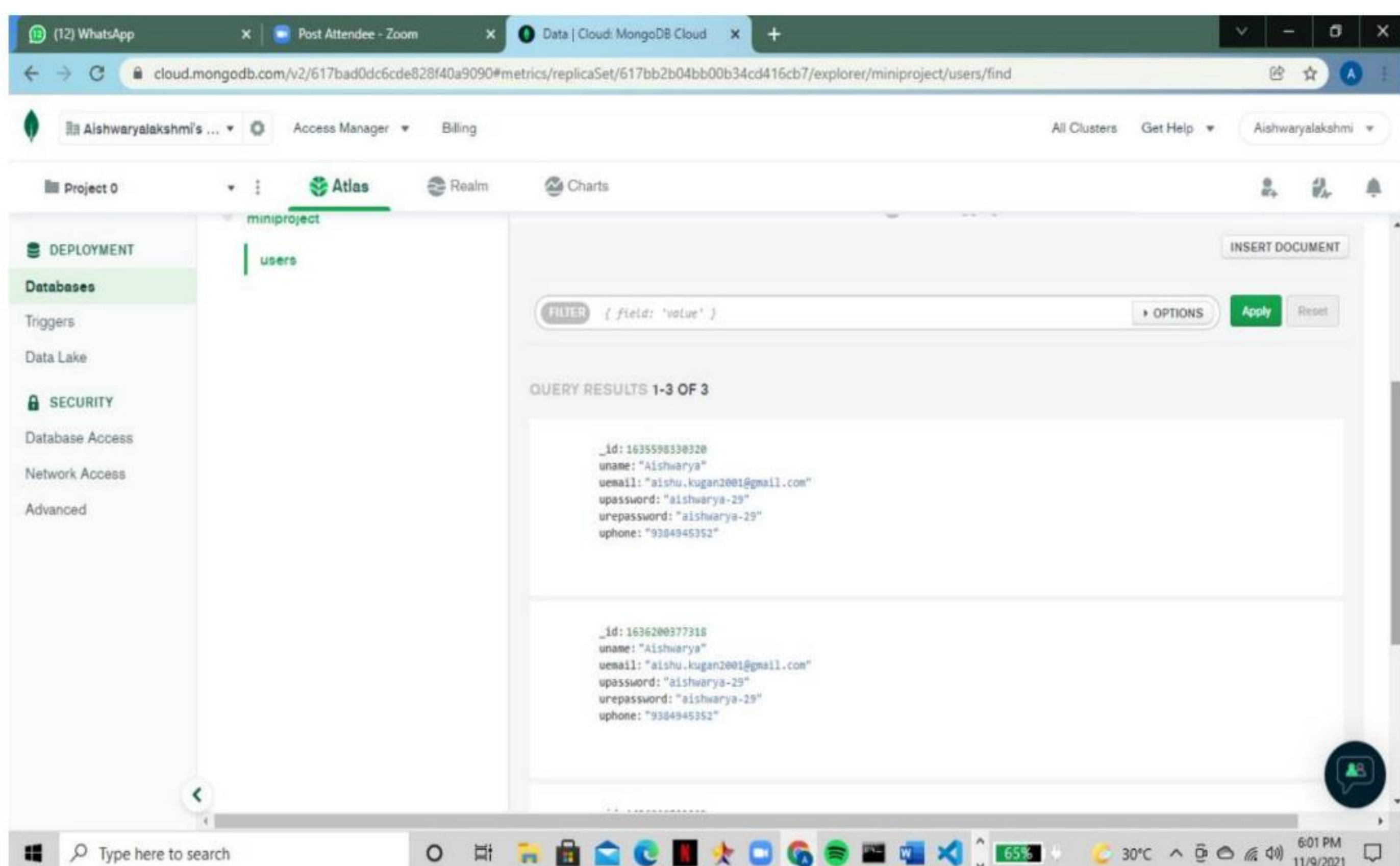


Fig 1.7 : Mongodb Connection

SUMMARY AND CONCLUSIONS

- **SUMMARY:**

This party hall booking app helps many people who are in need of party hall. Therefore I created "PARTY HALL Booking App" in which the booking will be done in a fast manner and in an affordable. This app is a single page web application built with Angular JS. More technical and database based activities are carried out to build this app.

The code is done from the scratch and the layout is made. The data is passed through database and collected in mongodb. This will be more helpful in booking!!!

- **CONCLUSION:**

With the steps shown in the above section, we can make a lot of single page applications that help in modern technology. Angular JS makes the building of an angular application easier as compared to many application languages. Working with angular gives more knowledge in importing modules and dealing with routes. It also involves processes in backend and the connection between the application and mongodb database also exists.

Angular is now an emerging technology which helps the full stack developers in developing their own application.