

Hostel Finder: Web Application

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Abstract: Finding hostel for a student is a time taking process, even hostels have hard time finding students quickly. Students have to visit the place to decide the better choice for them and fill registration form. Well here Hostel finder comes in. The main goal of the system is to increase quality of education system, it allows student to find hostels on basis of their location and area. Hostel owners gets to showcase their facilities and services or types of rooms available at their place. Student are able to register on portal and can give feedback to improve services. The major roles in this project are: Student, Hostel/PG owner, and Admin.

Index Terms - hostel, allocation, registration, MySQL, accommodation, records.

I. INTRODUCTION

The Hostel Finder web application was developed for easily locating Hostels/PG at particular area in any location. In due course the problems which I and my friends had personally faced in searching a Hostel/PG with feasible rent and an appropriate location.

II. ANALYSIS

The Hostel In analysis period we consulted some students and parents and found out the problems they faced while searching for a Hostel that fits their needs, which takes a chunk of their valuable time. Some of them event mentioned that they are still looking for a better place for the semester and having hard time to find the hostel that have all basic needs and a good value for their money.

The results of analysis made us to create an online portal which provides all necessary details regarding hostels. After a close analysis of samples collected during the problem definition stage we found that all the hardware and software requirements needed for implementation and the maintenance of the web application are readily available in market.

III. PROBLEM STATEMENT

The traditional process of the hostel registration employs a system that involves student going to the hostel booking office to filling out registration form. This form seeks to find out details of the student. Thereafter, student will register for new session by providing a bank teller receipt to show payment has been made. After registration student's profile is transferred to lodge where he receives daily essentials such as: mattress, pillow, chairs and table. Unfortunately, these processes are carried out with pen and papers, not so reliable procedure and waste time, this shown in figure 1:

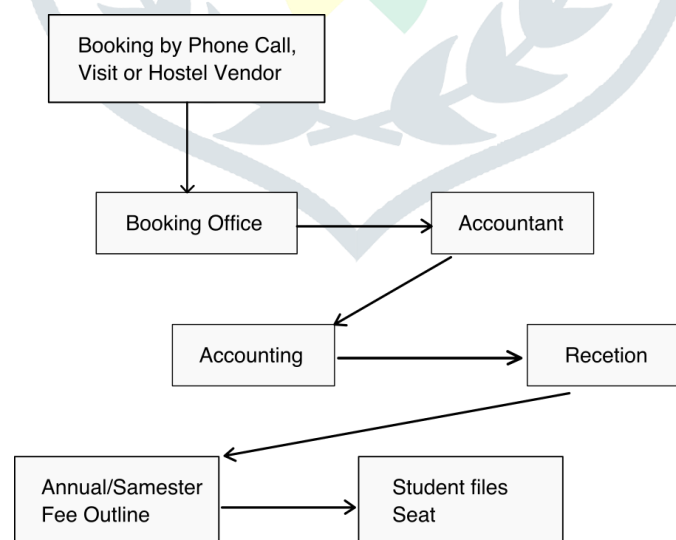


Figure 1: Traditional Registration System

E-registration refers to a new class of the registration system that enable students register without pen and paper or with little use of paper. It is a software package developed to facilitate ease searching of hostels and registration for them.

The process of user interface is illustrated in the figure 2:

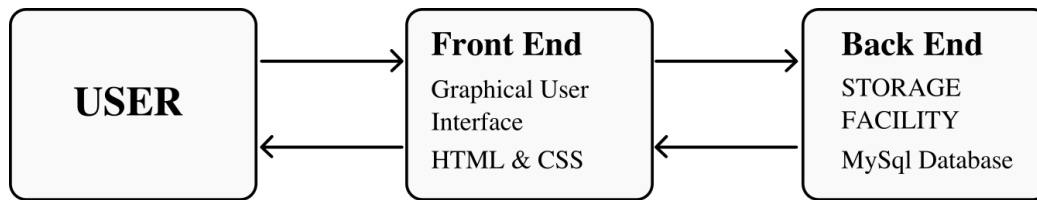


Figure 2: Block Diagram of Front and Back End Relationship

Since finding a good hostel and the conventional registration system which makes use of tedious administrative tasks, lots of paperwork and time, the goal of web application is to provide computerized process that is stress free, reliable and quick through the use of 'Java' computer programming language and 'MySQL' database application to both the student and hostel in charge of registration and hostel management process. HTML would be at the front end and provide graphical user interface that relates with the user, while the MySQL database will be at the backend to handle the data storage process.

The objective of this project is to implement an electronic web application that will streamline finding hostel and registration process, reduce the administrative tasks and paperwork so as to improve registration cycle process flow.

IV. LITERATURE REVIEW

Hostel Finder Web Application portal seeks to simplify the students' affairs/porters' operation. The stages involved in finding hostel/PG and registration process must be reduced to minimum if it is to be faster and more convenient. Paper based process are time consuming and expensive. The student usually has to go through several layers of authorization generating many documents along the way. An increase in number of students will obviously mean more paperwork and less efficiency, hence many Universities are finding e-registration a better and more effective way of catering for the inconvenience and efficiency of the tradition system. Web application for hostel accommodation plays a vital role in the transition and if effectively implemented, it will achieve the following:

- Reduced paperwork and redundancy thereby improving productivity and lowering the cost of printing and purchasing registration materials manually.
- Aid the hostel in data management and integration of the students' profiles.
- Aid the hostel to give account of details of the student with ease at any time without any hassling in records.

V. MATERIAL AND METHODS

A. System analysis and Design

System analysis[1] is a method of problem solving that deals with the breaking down of a system in the component parts in order to study how well the individual parts work and interact to accomplish their purpose. It involves the process of enumerating the existing problems and analysing the proposed system for costs and benefits, analysing the system and user requirements and considering possible alternative system.

System analysis is important in the design of subsequent system. System designs consist of design activities that produce system specification which satisfy the functional requirement that have been developed in the system analysis process. System design is basically structural implementation of the system analysis. The proposed System design is being designed in such a way that students only need to input their data online which is then entered into a computer database. Students will also upload passport photograph of their profile for ease of the identification.

VI. TOOLS

A. Graphical User Interface:

Hypertext Markup Language[2] (HTML) is the basic language used for creating web pages and other information that can be displayed in a web browser. The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages. The browser doesn't display the HTML tags, but uses the tags to interpret the concept of the page.

B. Hyper Text Markup Language:

HTML elements form the building blocks of all websites, allows images and objects to be embedded and can to be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for txt such as heading, paragraphs, lists, links, quotes, and so on. It can also embed scripts that written in languages such as JavaScript[3] which affect the behaviour of HTML web pages. HTML consists of several key components, including tags and their attributes, character- based

data types, character references and entity references. An important component is the document type declaration, which triggers standards mode rendering.

C. Cascading Style Sheets:

CSS[4] is a style sheet language used for describing the look and formatting of a document written in a markup language. While most often used to style web pages and interfaces written in HTML and XHTML, the language can be applied to any kind of XML document, including plain XML, SVG and XUL. CSS is designed basically to enable the separation of document content from document presentation, including elements such as layout, colors, and fonts. This improves content accessibility, provides flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting and reduce complexity and repetition in the structural content, for instance, allowing table less web design. CSS can also allow the same markup page to be presented in different styles for different rendering methods such as on-screen, in print and on Braille-based, tactile devices. CSS specifies a priority scheme to determine which style rules apply if more than one rule matches against a particular element. Priorities are calculated and assigned to rules, so that the results are predictable.

D. Hyper Text Processor:

Java[8] is a server-side scripting language designed for web development but also used as a general-purpose programming language. Java code may be embedded into HTML code, or it can be used in combination with various Web template systems and web frameworks. Java code is usually processed by a Java compiler (computing) compiler implemented as a plug-in (computing) module in the web server or as a Common Gateway Interface (CGI) executable. The web server combines the results of the compiled and executed Java code, which may be any type of data, including images, with the generated web page.

E. MySQL:

MySQL[5] (structured query language) is an open source relational database management system[6] (RDBMS), the world's second most used relational database following SQLite. It is deployed with every Android (operating system) and iPhone device along with the Google Chrome and Firefox browsers. The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary software agreements. MySQL is a popular choice of database for use in web applications and is a central component of the widely used LAMP (software bundle) open source web application software stack and other list of AMP packages. Free software-open source projects that require a full-featured database management system often use MySQL.

VII. SYSTEM REQUIREMENTS

System requirement[7] is a description of the needs of a user for an information system. The unique requirements of a user are identified here.

A. User Requirements:

To gain access to the e-registration system, the user would need:

- A personal computer
- A username
- A genuine password

B. User Interface Requirements:

User interfaces are the registration pages developed for the students to register and the porters to manage the students. They consist of the following:

- Login and registration page
- Hostel search page
- Owner Dashboard
- Admin Dashboard
- Profile Management page
- Update Details page
- Feedback Page

VIII. DATA FLOW DIAGRAM

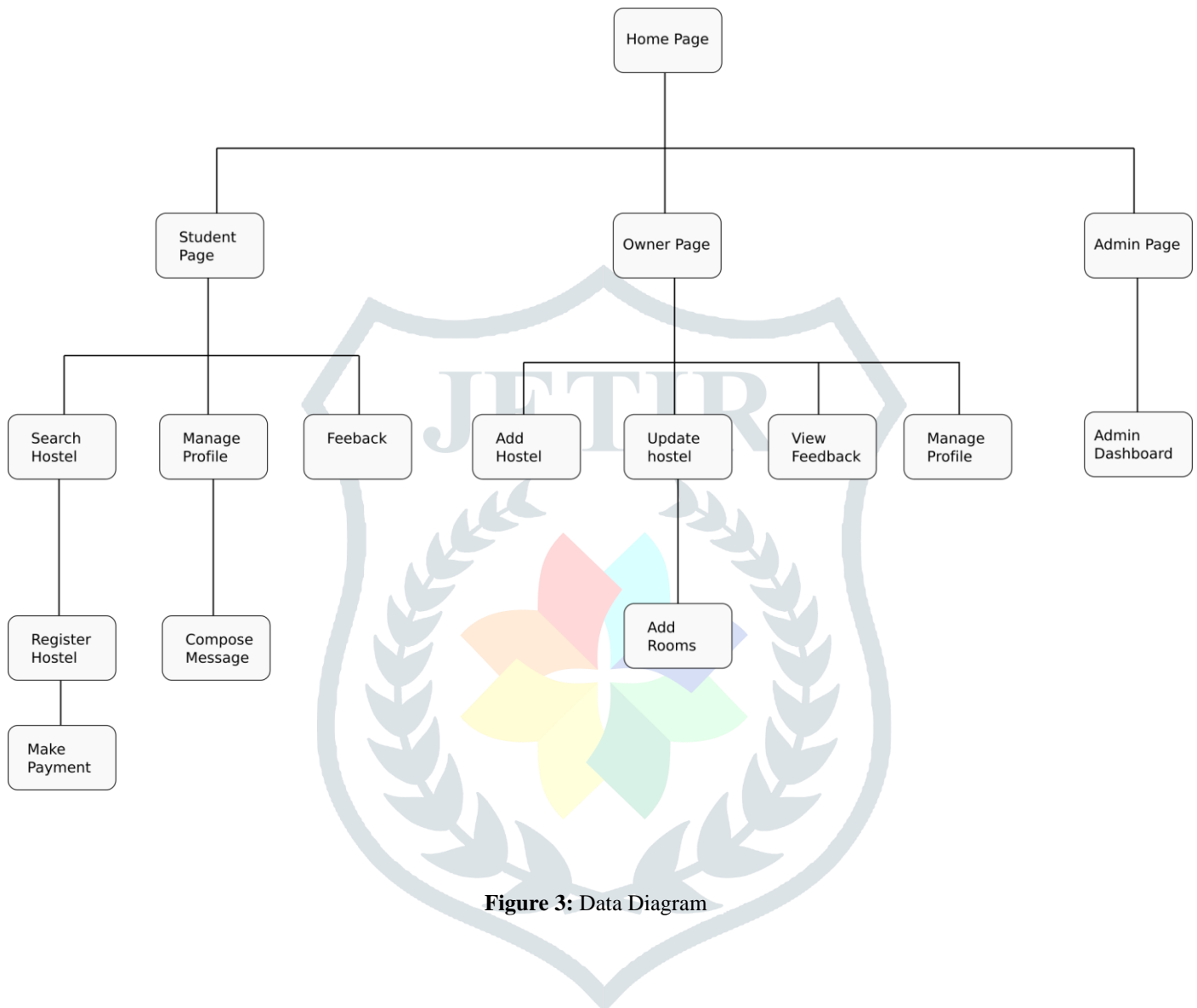


Figure 3: Data Diagram

IX. DESIGN IMPLEMENTATION

Design implementation[9] refers to the real live running of the designed program. This section consists of the program modules, showing what they represent, and how the system can be deployed.

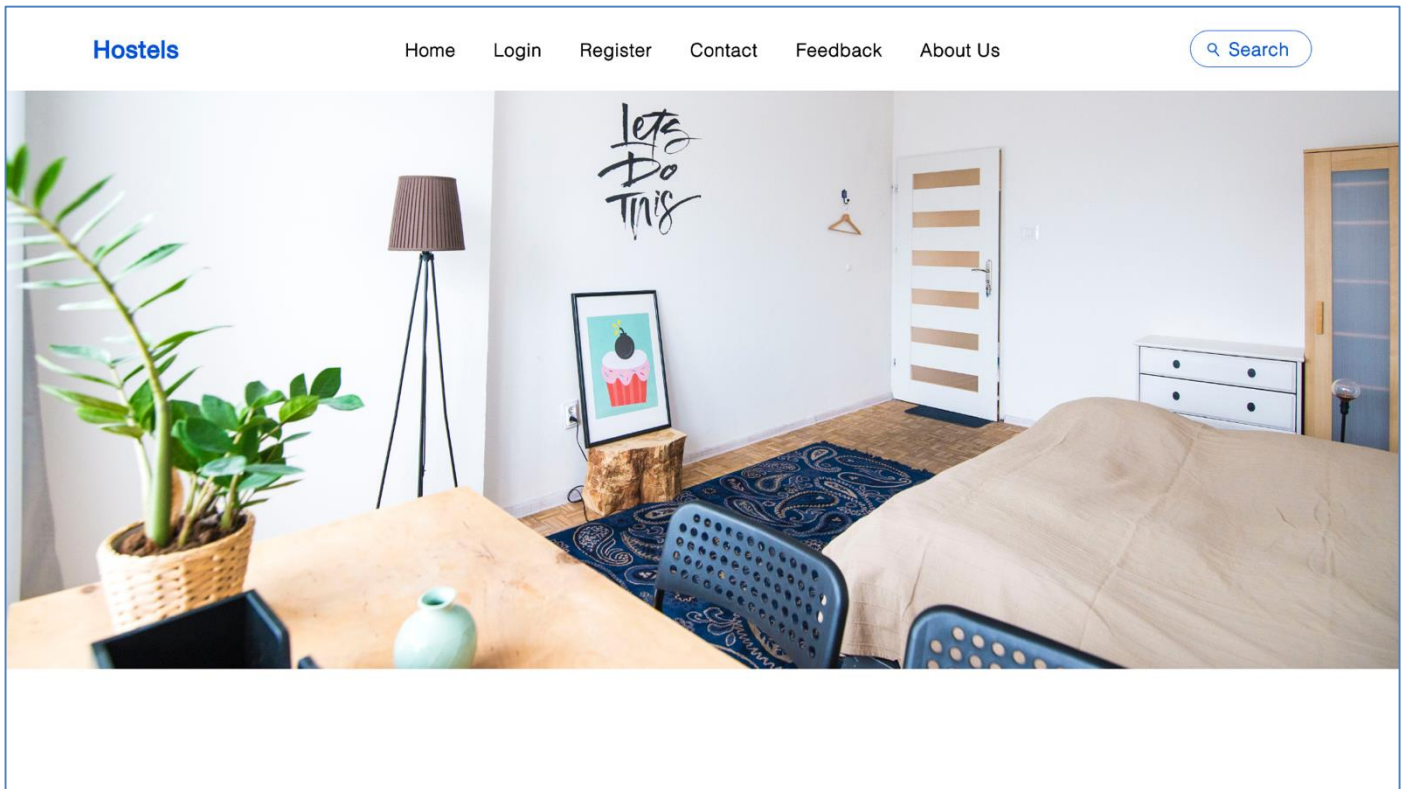


Figure 4: Home Page

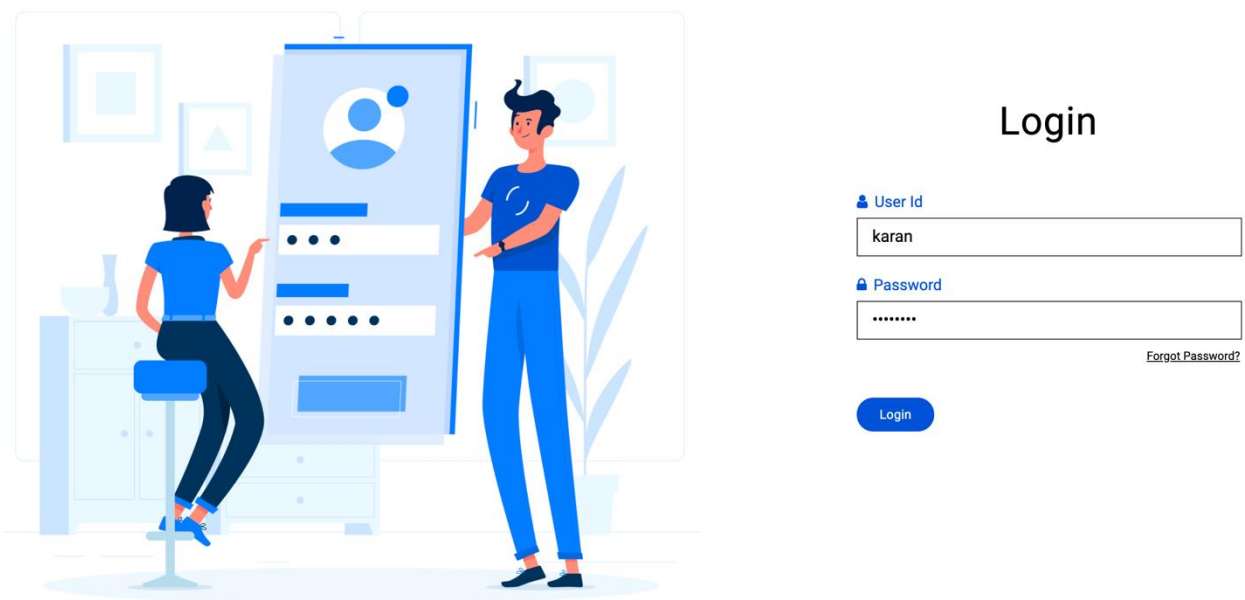
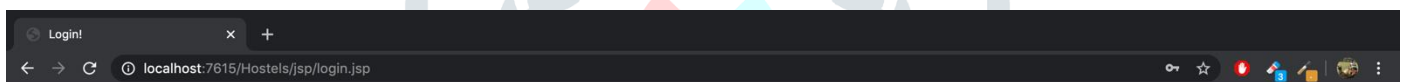


Figure 5: Login Page

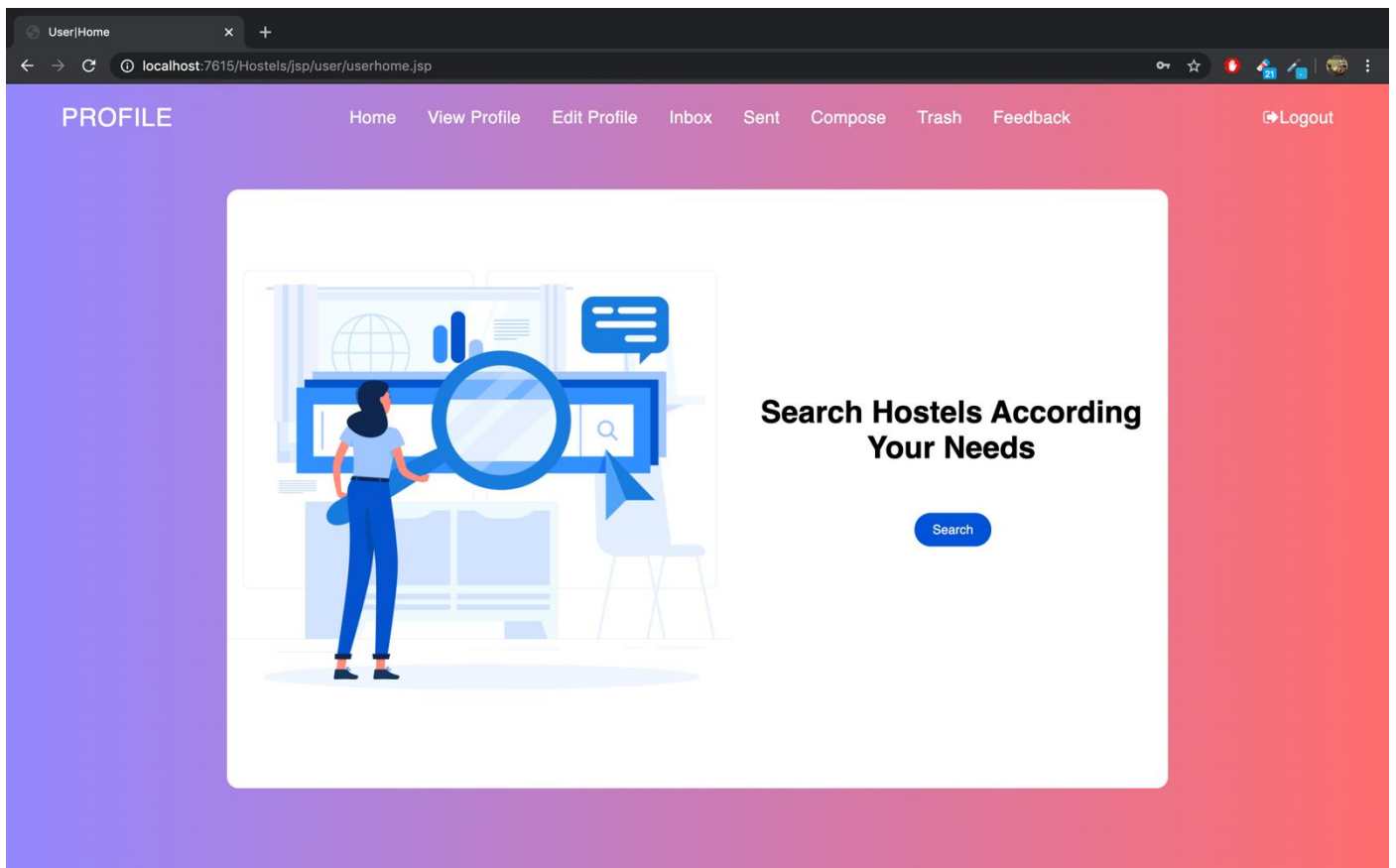


Figure 6: User Home Page

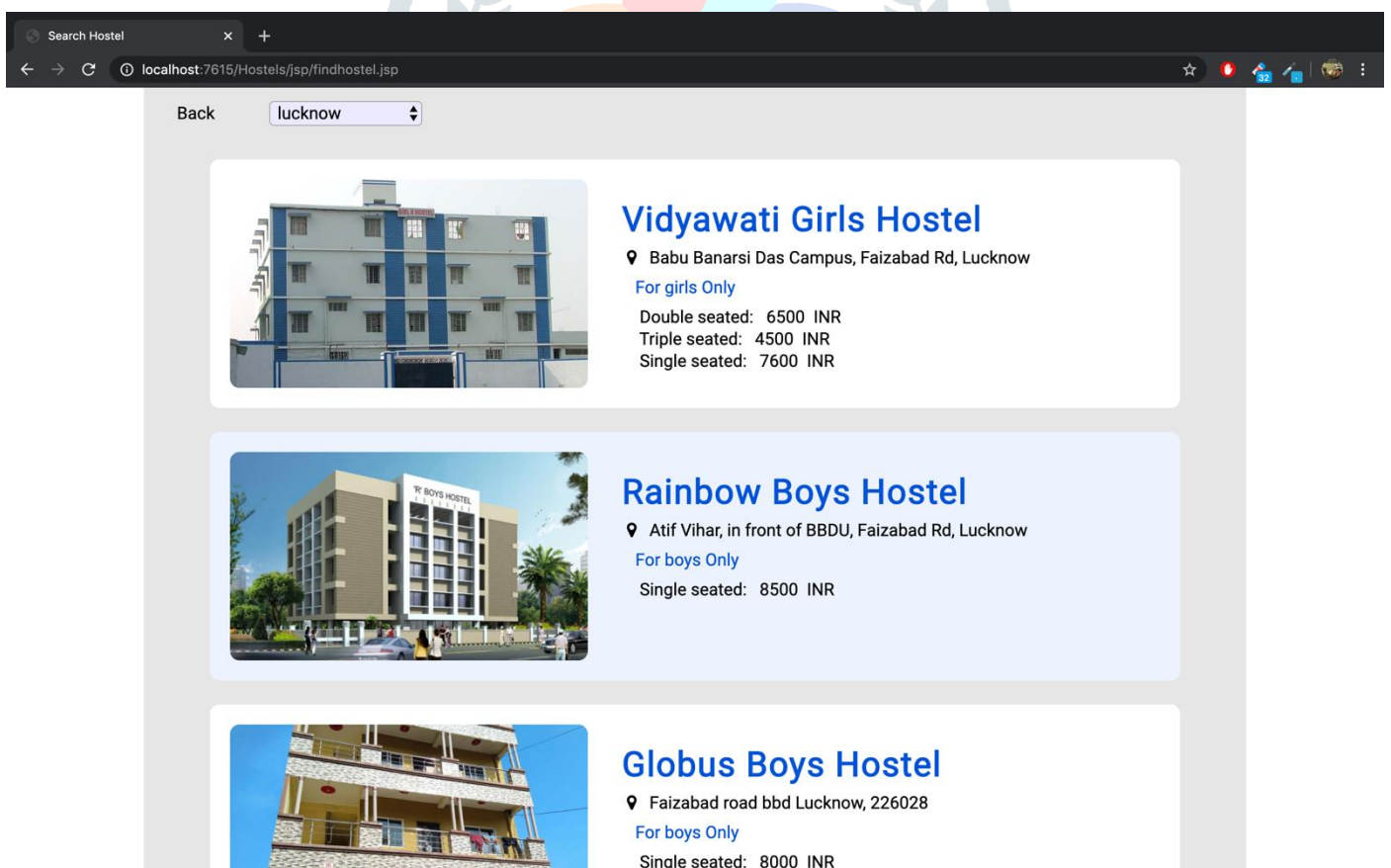


Figure 7: Search Hostel Page

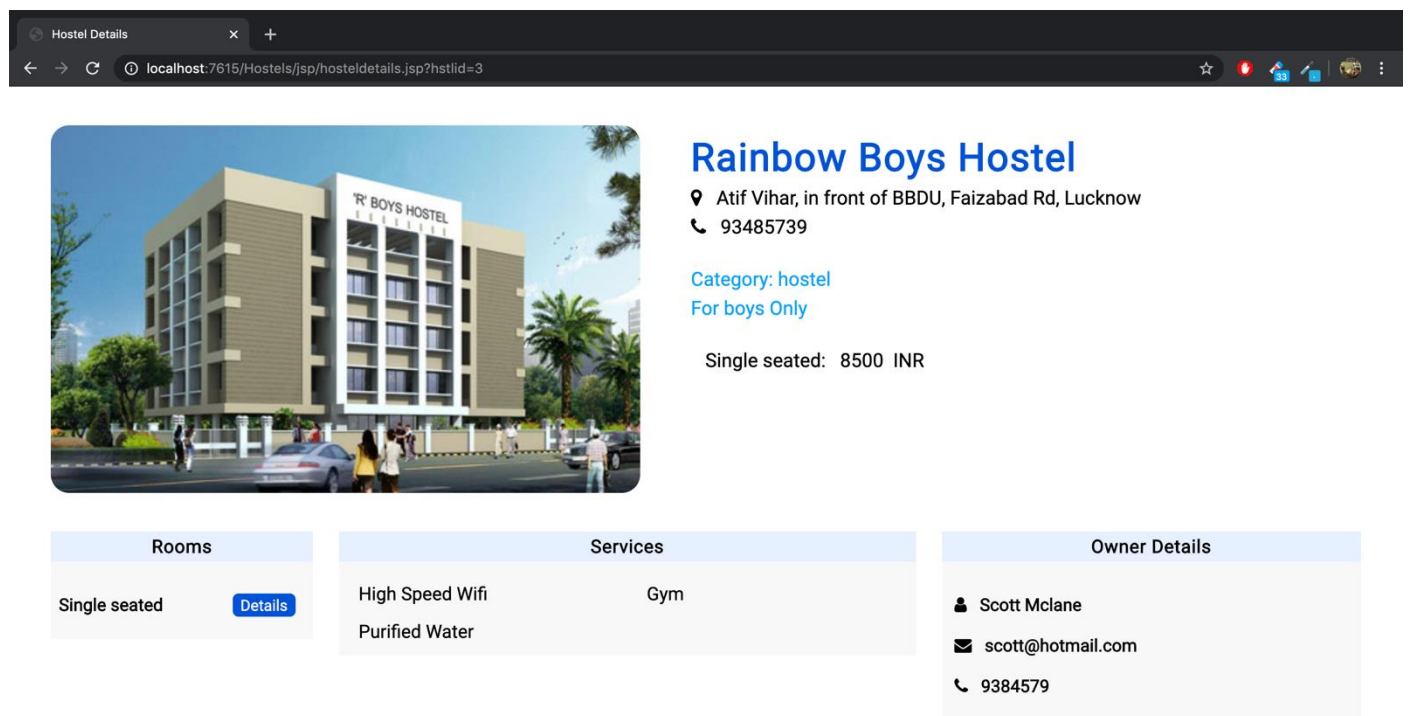


Figure 8: Hostel Details Page

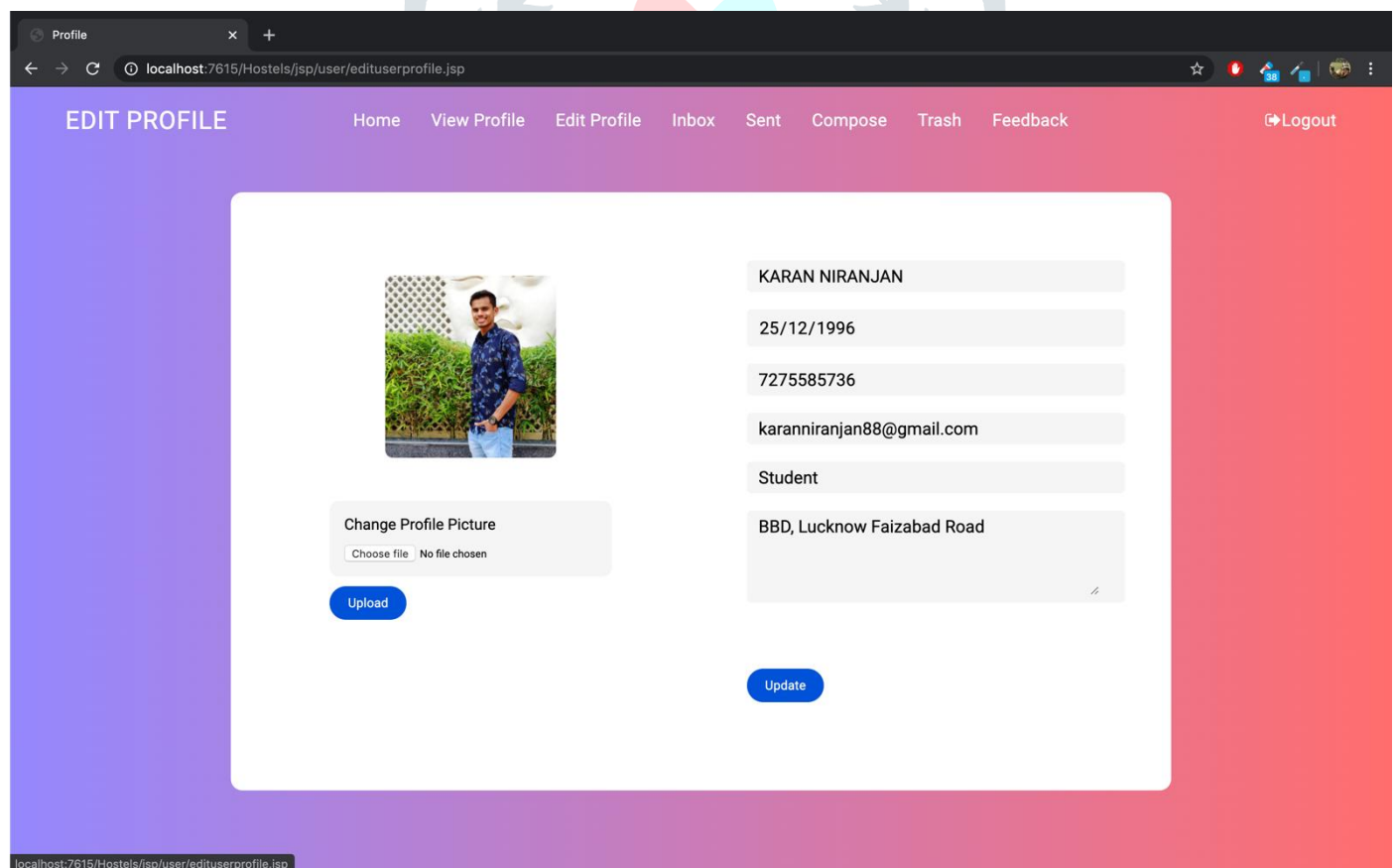


Figure 9: User Profile Update Page

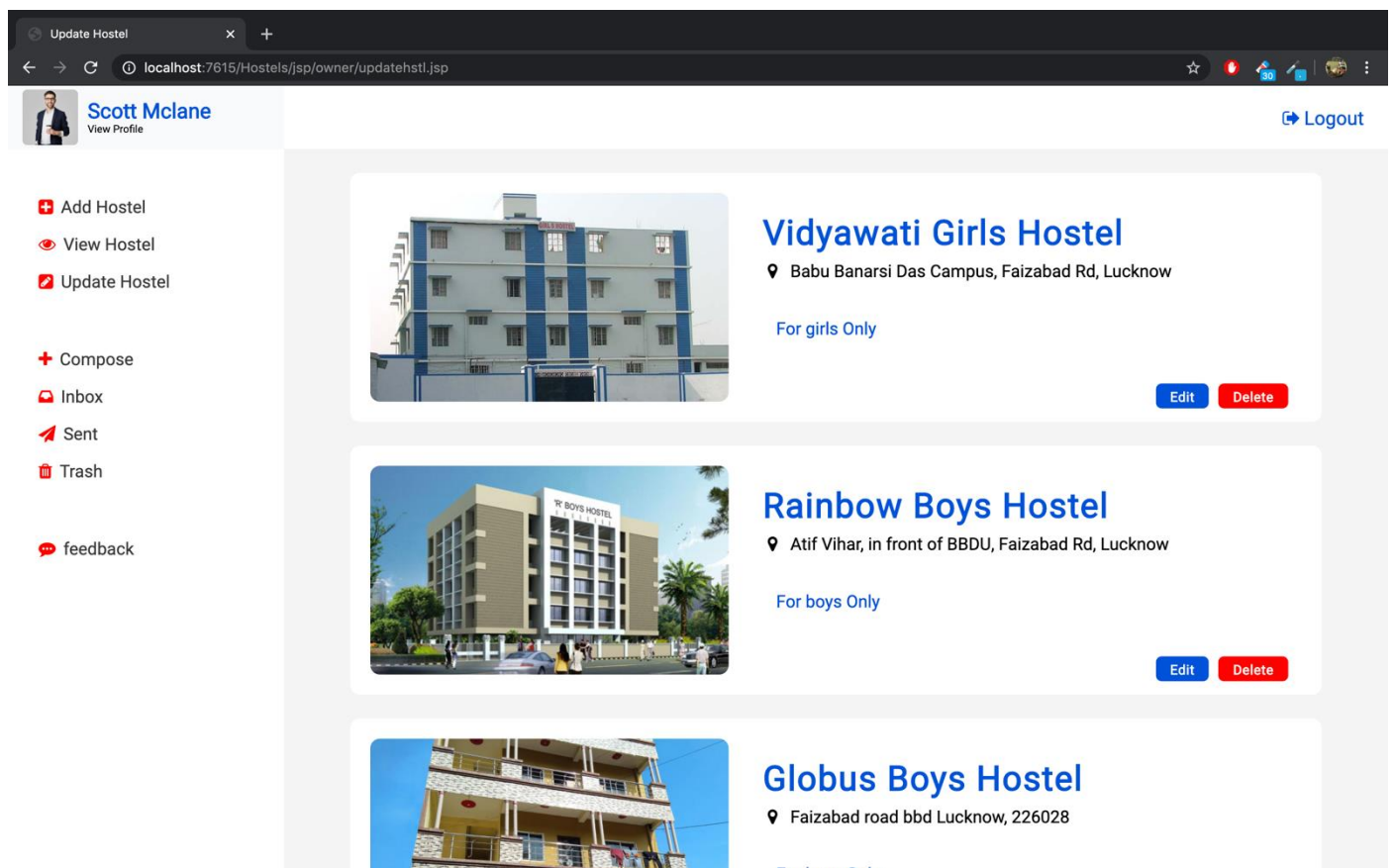


Figure 10: Owner Dashboard Page

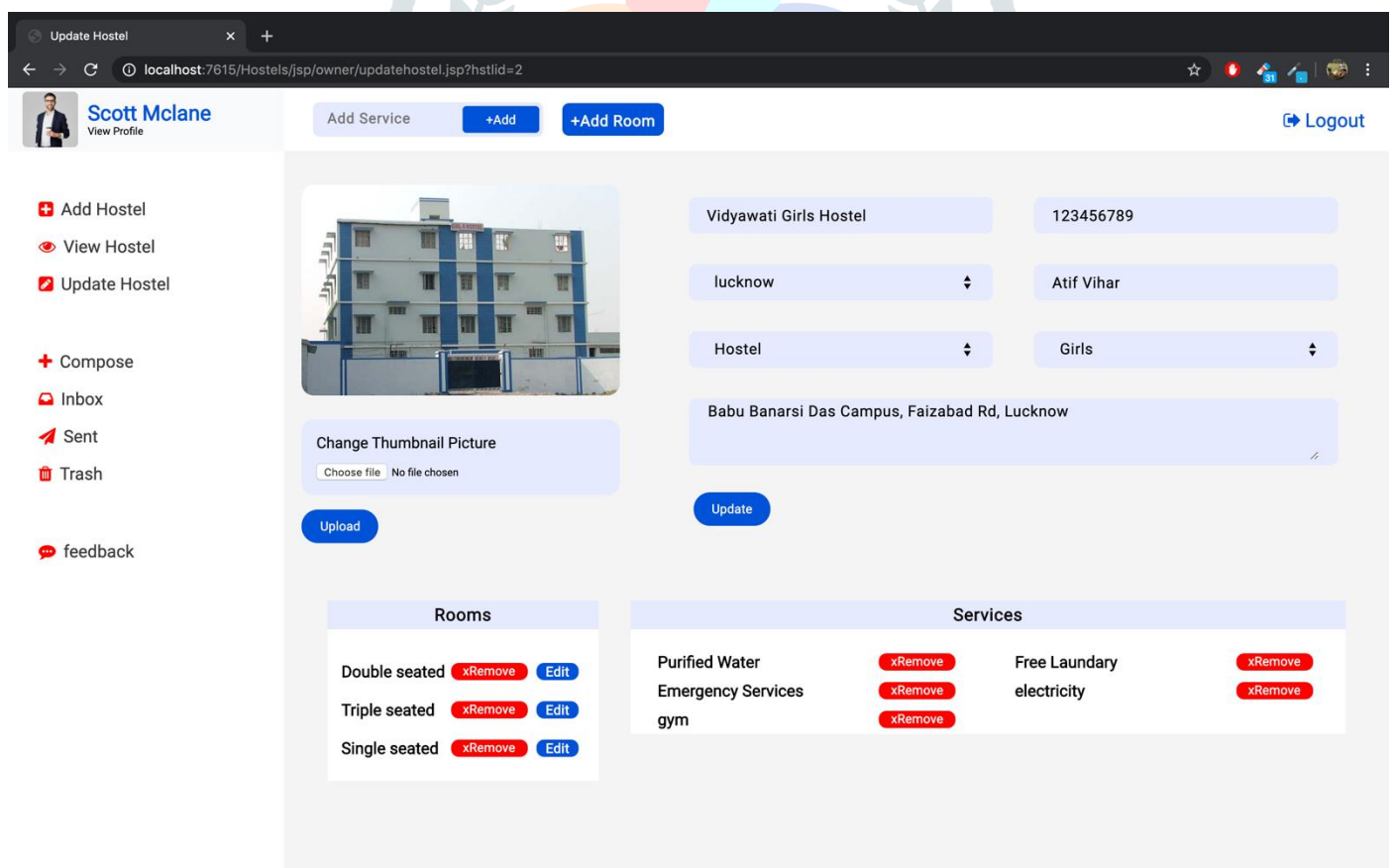


Figure 11: Update Hostel Details Page

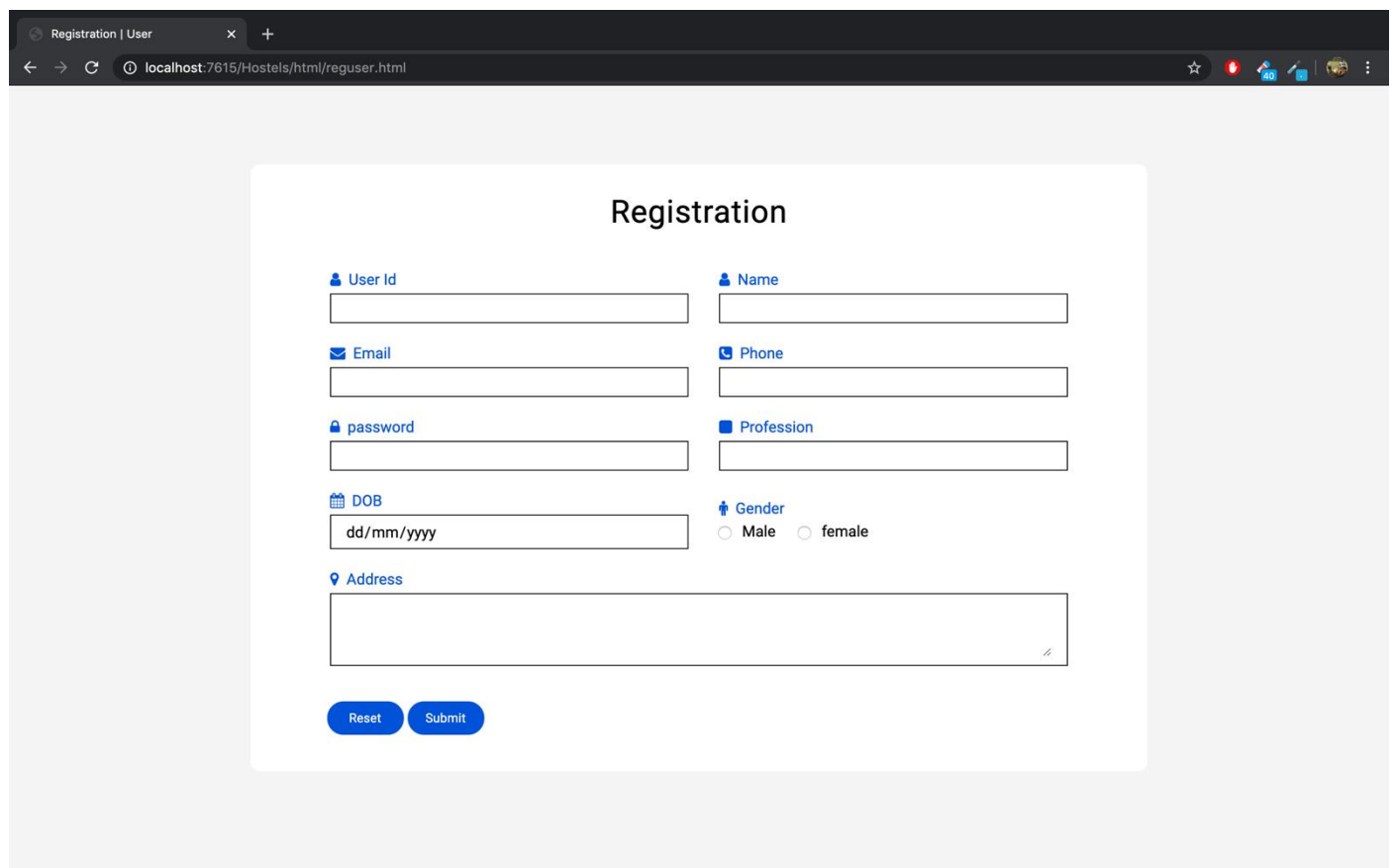


Figure 12: User Registration Page

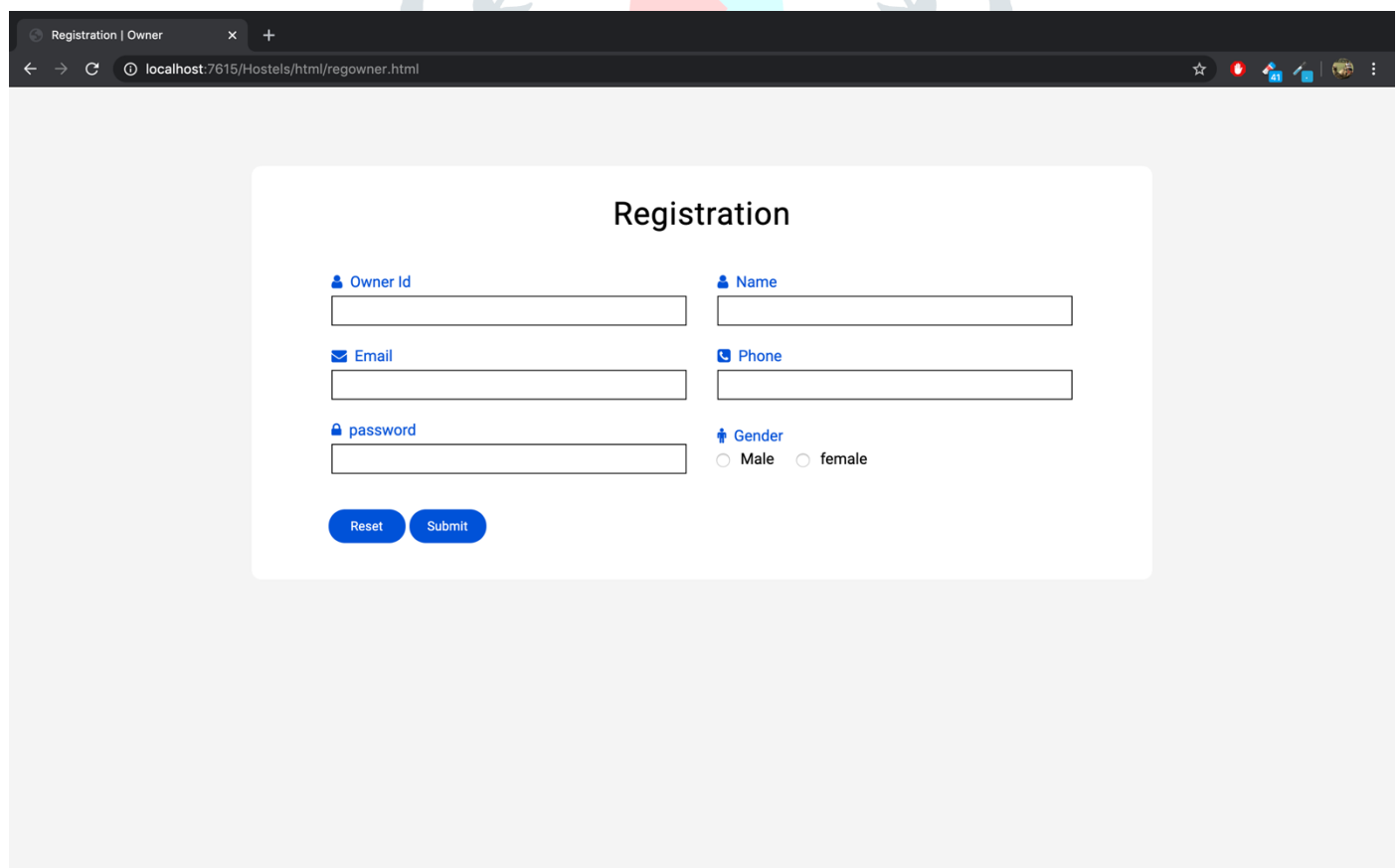


Figure 13: Owner Registration Page

X. CONCLUSION

The introduction of the web application portal of searching and registration focuses on saving cost, improving the efficiency of the processes involved in registration of hostel/PG and makes the overall procedure stress free. The hostel finder web application is aimed at streamlining the registration and finding process of hostels for both students and the owners in charge of the procedures

involved. It is to eliminate unnecessary administrative tasks and reduce or even avoid paper work. This system will help improve productivity and reliability of the hostel registration and finding process in a more efficient manner.

XI. REFERENCES

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