DEVELOPMENT OF HOUSE RENT MANAGEMENT SYSTEM

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DECLARATION

We hereby declare that this project has been done by us under the supervision of **Md. Tanvir Rahman, Lecturer, and 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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We really grateful and wish our profound our indebtedness to **Md. Tanvir Rahman, Lecturer,** Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of "*Field name*" to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts and correcting them at all stage have made it possible to complete this project.

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Finally, we must acknowledge with due respect the constant support and patience of our parents.

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ABSTRACT

The main things behind the project work are to eliminate the hard work normal civilians have to go through to find a new house for rent. Bangladesh has become one of the densely populated countries in the world. Dhaka being the capital of Bangladesh is the densest city. But the living condition of Dhaka has become very worse. Everyday people face different types of problems such as water crisis, traffic jam, and accommodation problem soon. As there are a lot of job opportunities in Dhaka, rural people are coming to Dhaka city to have a job and to meet other needs. Most of the private universities are also located in Dhaka city. As a result, the accommodation of these huge people has become a burning problem. People are also facing a lot of problems while finding the exact accommodation place due to unavailability and the time consumption to find a suitable one. We believe our software/project will help everyone living in Dhaka city and we extend to furthermore cities to produce adds that a house is free to rent. A house rent management system can be a solution in this regard.

Before implementing our idea, firstly we survey on local areas and figure out the differences in policies how each area homeowner has their own methods and handle the house rent process. We discuss our idea and the homeowners appreciated our idea and wanted to take advantages of this system. We also surfing on the internet about existing websites that supports this idea. Lots of website in foreign countries who are already providing this service in local civilians. To implement our idea needs to maximum efforts and dedication from our team- and we believed to put the effort needed.

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CHAPTER 1

INTRODUCTION

Introduction

The project House Rent has a great and new concept hidden in this project. The concept is new for our country Bangladesh and will help everyone very much. After studying extensively and facing this house renting problem personally in real life in our capital city Dhaka – we came up with the idea to decrease the pain general people go through to rent a house.

The project has many sides to it and we believe by implementing such an idea in the market will benefit all sides and users of House Rent project. Much like general people – who are searching for houses to rent – the homeowners also seek for good and trusted people to give rent to. Both parties will be highly benefited if this project can be implemented successfully.

After studying and figuring out the needs of both the parties and the underlying processes that lies within the concept of house rent – I and my team decided to go ahead with this idea and implement a solution that will help everyone living in the city[Shown theFig1.1].

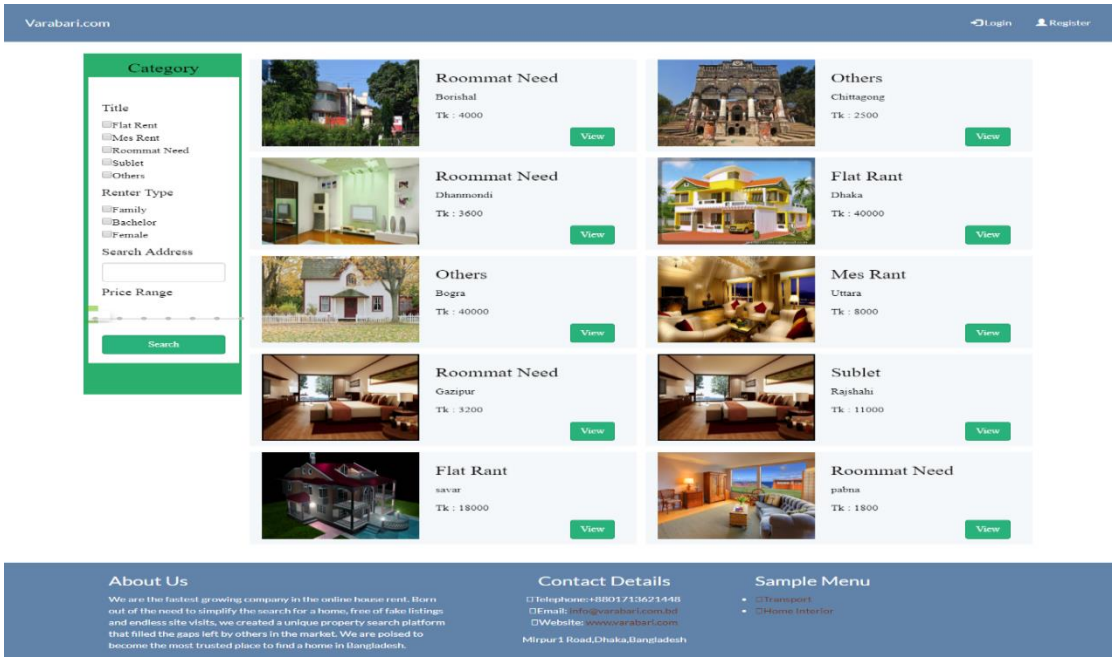

Figure 1.1: Screenshot of the project.

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Why choosing this Project

The project has been a hit in foreign countries for a long time now. In foreign countries, getting your house rented is very easy and to take rent and know about the price and facilities that the house owner will provide is easy. Therefore like our country Bangladesh – people don't have to go to the door to door to know about the house and ask whether they permit bachelor or family rent. This is very tiring and frustrating. Changing a home and taking a new rent takes months ahead of planning and preparation in our country.

Having said that – the house owners also stay in tension and pressure whether or not their house will get rented or not. They have to buy or make ads and hang this adds in front of the house and in the common advertisement section of the area. This is costly and also takes an effort to serve potential renting. With every renting – the owners have to have a long discussion with everyone – making them see the house and deal about pricing. This takes time and effort and also produces a risk of losing a potential client if the owner is not available at that particular period of time.

I and my team discussed how could this all be eliminated and came up with the project idea House Rent. After sharing our idea with our supervisor and having several short chats about the idea – we received the initial guideline of the project. This project could be the solution for all the questions that both house owners and the renting people have to face – and could save both of the parties time, effort, energy, and most importantly money. We also took reviews of different individuals and find out that almost everyone is interested and appreciated the idea. After getting positive feedback – I and my partner started brainstorming how to implement the idea so that it stays easy for both shop owners and for customers. We then set off for the project.

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An objective of the project

The main objective of this project is to aid two major parties involved in the process of renting a house – the house owners and the renting customer.

The objective is to produce a solution which can be used extensively by anyone to get a categorized list of all the houses available to take rent and to contact with the house owners easily. From the other side of the project – it will also facilitate house owners extensively as it will save a lot of time and effort which was previously needed to serve each interested renter. House owner now can easily publish ads and showcase their houses and can easily come in comparison with other house owners and the facilities they provide and stay ahead to get more hits to form potential renter – which in the old traditional system of renting a house is not possible.

House Rent – the project is developed using PHP, Laravel framework, JavaScript, HTML, CSS and to stylize Bootstrap framework is also used. House Rent project contains both the back end and the front end. It has panels for potential house owners who want to showcase their house and publish ads. It has a panel for users / interested renters who want to communicate with the owners. House Rent also facilitates the owner of the system (us) by providing an admin panel – form which every customer registration, new post, and other important issues can be controlled and configured. While developing the service – user-friendliness and the ability to cope with different facilities that house owners might require is kept in mind and considered. The website is dynamic and is very flexible to meet user needs.

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CHAPTER 2

FEASIBILITY STUDY

A feasibility study is the study that reflects whether the project is feasible or not. It will help us determine whether this project will take us to lose or it will ultimately bring up profit as expected. A feasibility study of a system proposal is according to its workability, this has an impact on the organization, ability to meet their user needs and satisfy them and do an effective use of the company's resources. Thus when a new application is proposed it normally goes through a feasibility study before it is approved for development.

For bigger projects – feasibility study is done extensively and reports produce, but due to academic scope limitation and project boundary – we studied the feasibility in a standard and summarized manner and found out that the project has a high potential to be feasible in our country Bangladesh.

In this chapter of our documentation, we will look upon a few major aspects of feasibility and its studies. Among various types of in-depth feasibility studies available for bigger / higher end projects – we will study three major/standard feasibility types that are needed for any kind of project to understand the feasibility of the project. The three feasibility types are:

1) Technical Feasibility

2) Economic Feasibility

3) Behavioral Feasibility

Technical Feasibility

Technical feasibility is one of the major components of understanding feasibility and should be studied at the very beginning once the project is identified. Technical feasibility should mainly contain the following three major aspects of understanding:

- Availability of raw materials for input
- Availability of market for output

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- Various efficiency factors.

The system must be evaluated from the technical point keeping the listed aspects in mind. The assessment of this feasibility must be based on an outline design of the system requirement in the terms of input, the availability of technologies that my team has a good grasp on and the ability to get the resources required. The resources required to develop this project is available for free to use and my team will face no problem in acquiring them.

We also considered the availability of a market for output. The project will be a great hit only if can be launched in a proper market at the right time with the rite facilities provided. The consideration of output and market availability shows us the positive aspects of the project and me and my team is very confident that the output of this project will be a good one.

Having identified an output system, the investigation must go on to suggest various efficiency factors that needed to be considered before starting the project. The efficiency factors of this project lie in its availability and user-friendliness for all-purpose users. My team and I believe that this can be achieved with ease and due to a usage of the latest technologies – the efficiency factors can be achieved.

We as Analysts have identified the existing computer systems (hardware & software) of the concerned department and have determined whether these technical feasibility study and resources are sufficient for the proposed system or not**.** We have found out thus, that the project is technically very much feasible and should have no problem in execution.

Economic Feasibility

The main concern of the economic feasibility study is to consider the possible economic benefits that the host company/team will have by implementing this project. It includes quantification and identification of all the benefits expected. This economic feasibility study typically involves a cost/ benefits analysis. For me and my team – the economic facilities might not be that much due to academic project and scope – but the project itself holds some economic value for all parties related.

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The developing system must be justified by cost and benefit. Few questions needed to be asked during the initial stages of the economic feasibility study – the questions are:

- The costs conduct a full system investigation.
- The cost of the hardware and software.
- The benefits in the form of reduced costs or fewer costly errors.

After going through the study of economic feasibility and cost/benefit analysis and finally asking the questions for this project feasibility – I and my team found out that the project is economically feasible and should be taken into consideration of having a positive impact on the market.

Cultural Feasibility

Cultural feasibility is the study of the impact that the project might have culturally – which might lead the project to be popular or lead to a failure. The concept is to understand and accept the cultural bindings and also findings the strong aspects that any culture could provide to be a project tremendously successful. For any cultural acceptance of any project – the following questions should be considered:

- Is there sufficient support for the users?
- Will the proposed system cause harm?
- How can it increase anyone's daily activity?

The project would be beneficial because it satisfies the objectives when developed and installed. All cultural and behavioral aspects are considered carefully and conclude that the project is feasible and should be considered for implementation locally.

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CHAPTER 3

FUNCTIONAL SPECIFICATIONS

Functional Requirements:

Server / Backend

For a project this sophisticated – a good backend/server support is one of the most important things to plan ahead. Therefore I brought this at the very top of functional requirements. Without this requirement – the functionality of our project will not be complete. The project will not run. Regular monitoring and database backup should be taken.

During server/backend functionality understand – we have to keep in mind that the most advanced and updated latest technologies should be used to get the optimum facilities that the server configuration could provide. The database design should follow the standards methods and techniques to avoid any later errors. The dependencies should be checked and used accurately.

Accounts

To get or use the facilities of House Rent – users have to register and create their own accounts to post new ads or to request/communicate with the house owners for any desired house. The user accounts can be regularly monitored and maintained by the admin from the admin panel. If any user tries any harmful methods – admin will have the power/rights to block any user account whenever necessary. The purpose of the account information is to hold login information, network information, profile details. Accounts functionality will help the project to show information that is required to show up in the user's accounts. The user can edit this by modifying his/her profile. Accounts will help the House Rent System to be dynamic – to provide user-specific data to each user and also it will enable many hidden facilities and open up new possibilities that user accounts hold in every project/system.

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House Rent Post

After creating an account under House Rent system – any user can post an add about the available house if necessary. This feature is the major of the project and should be maintained accurately and monitored regularly by admin. The post works like any other post we see in social media. In any post – the house owners can choose categories under which their post falls and can provide basic information – a set price for the rent, also provide image and also using google map in his/ her area. The post will be displayed in the front end of the system and anyone interested can contact the house owner by viewing the details of the post. If anyone wishes to communicate with our team/company to rent a house, we communicate the owner via House Rent system then have to have an account to do so.

Network

The most important feature is being able to add and remove other users from the network. In our DIU Alumni Social Networking site, making friends is a fairly straightforward process. Keeping that experience in mind – we also planned to implement a network enables a system that can easily bring different users in one platform and communicate and share information about vacant houses and many more. House Rent Management system can be a common ground for house owners and renter where they can communicate, share needs and views on how to do the deal and understand mutual interests. Therefore if network-enabled system is planned to be implemented in this project.

Registration

When a user comes to this site for the first time, he/she must create an account before using any of the site features. Anyone can create an account. Sign Up deals with the login information and is required for the user to fill up the form. By providing basic information users can easily perform the registration and should be approved by admin in the second procedure. The user has to provide information like name, email address, mobile number, and address with zip code, National ID number. Users can also upload a quality full high definition image as desired to represent themselves in their profile.

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Provide a strong password for their account – which they can later use to login to the system and use the features of the system.

Non Functional Specification

- Implementation of security from both user access and backend access. Secured admin access should be provided. Secure access to confidential data by user name and password. This application is secure for every kind of its users, because if any user logout from any session then nobody will be able to access his profile without knowing his strong password.
- Ability to post posts easily without getting errors.
- 99.9% UP TIME or in another word 24 X 7 service availability is very important.
- User-friendly design and better component design usage to get better performance at peak time.
- Designing a robust and dependable database. So that data transmission and query execution time are less and thus users will not have to wait for the output very short time.
- Responsive and should have the ability to be accessed from any type of devices.
- Avoid and maintain database redundancy.
- Username & password are sent to the users via email after registration and Password verification code will send in an email.

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CHAPTER 4

SYSTEM TOOLS SPECIFICATION

Bootstrap

Bootstrap is a powerful front-end framework for faster and easier web development. It includes HTML and CSS based design templates for common user interface components like Typography, Forms, Buttons, Tables, Navigations, Dropdowns, Alerts, Modals, Tabs, Accordion, Carousel and many other as well as optional JavaScript extensions. Bootstrap is a responsive framework in using user interface at a varies devices screen. Bootstrap also gives your ability to create a responsive layout with much fewer efforts.

JQuery

JQuery is a fast, small, and feature-rich JavaScript library. It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers. It can help to know a message in the user interface. The pop-up box and other small notification tools to show in GUI.

PHP

PHP is scripting languages that fill the gap between Server Side Includes and Perl, intended for the web pages having dynamic constants. PHP is one of the frontrunners in the Open Source software movement. Currently, PHP has two major versions: PHP 5.6 and PHP 7.1. PHP 7.2 is currently under development. PHP was designed by Rasmus Lerdorf to display his resume online and to collect data from his visitors. Originally PHP was implemented as an interpreter and still, this is the most popular implementation. Better execution speed, static analysis, and improved in comparability with code written in other language is the benefits of compilation. It can be used in standalone graphical applications. With core build, PHP includes Open Source libraries. Fundamentally PHP is an Internet-aware system with modules built in for

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accessing File Transfer Protocol (FTP) servers, database servers, embedded SQL libraries such as MySQL, Microsoft SQL Server, and SQLite and others.

Laravel Framework

Laravel is a free and open source PHP web framework for developing a web application. Laravel framework is created by Taylor Otwell. Developing a web application following MVC models. The MVC stands Model- View- Controller structural pattern based on the symphony. Laravel framework has some easy tasks, it's commonly used in majority web application projects such kind of task is authentication, routing, sessions, and caching. Laravel framework has a few some system requirement. The system requirement is Laravel Homestead virtual machine. It is highly recommended for the local laravel development environment.

Such kinds of required tasks are given below:

- PHP latest / previous version.
- OpenSSL Php extension.
- XML Php extension.
- PDO Php extension.
- JSON Php extension.
- Mbstring Php extension.
- BCMath Php extension etc.

PHP MyAdmin

PHP MyAdmin is a free software tool which is written in PHP code. PHP Myadmin is maintaining the administration of MySQL database over the Web application. PhpMyAdmin supports a wide range of operations on Browse, Structure, Insert, Search, MySQL, DB and Drizzle. Frequently used operations can be performed via the user interface, while you still have the ability to directly execute any SQL statement.

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Features provided by the PHP MyAdmin:

- Web Site user interface.
- MySQL database management
- Import data from CSV and SQL
- Export data to various kind of formats: CSV, SQL, XML, PDF, Word, Excel, and others
- Administering multiple cross servers
- Creating PDF graphics of the database layout
- Creating complex queries using Query-by-Example
- Searching globally in a database or a subset of it
- Live charts to monitor MySQL server activity like connections, processes, CPU/Memory usage, etc.

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CHAPTER 5

FUNCTIONAL SPECIFICATIONS

Key Features

The key features/functionality of the project are listed below to give and utilizes the system boundary and the core functionality that the project House Rent is providing. The functional specifications implemented are listed below accordingly:

Front Website Features:

The front end is beautifully designed and maintained so that any user/customer can easily get the information they require and can find comfort in usage. The posts of empty houses for rent are categorized and assembled in such manner so that different category of people can easily find what they are searching for. A general shown the [Fig5.1] of the front end is provided below:

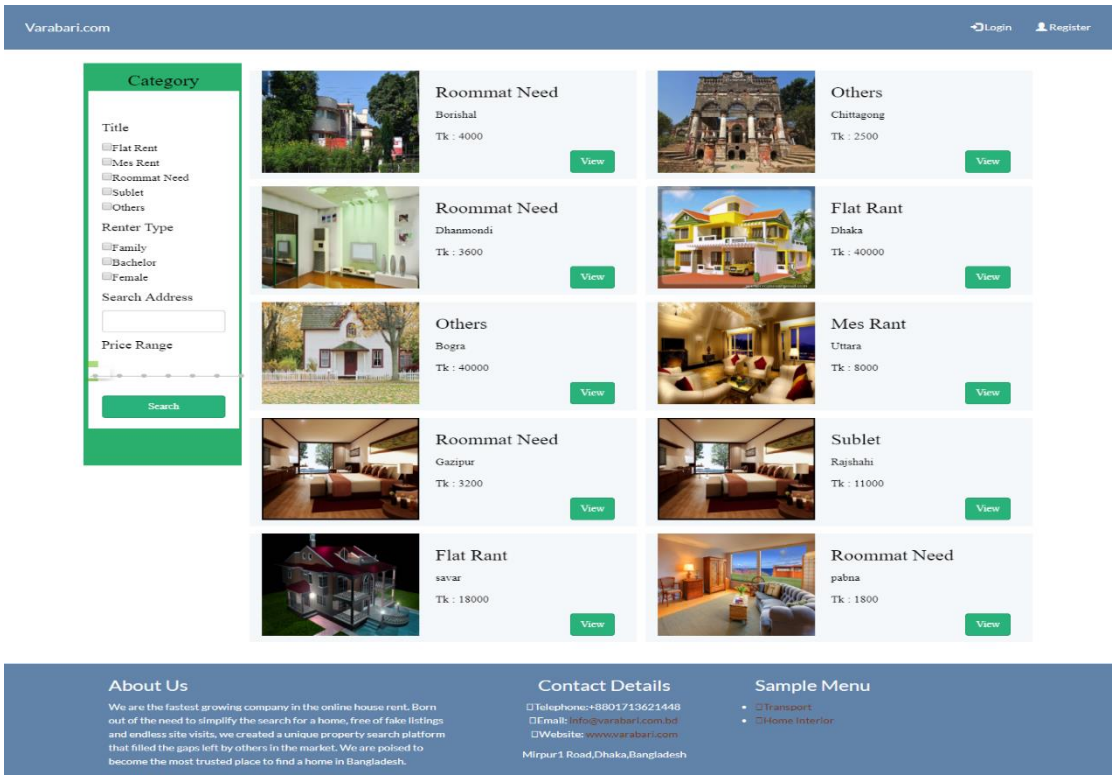

Figure 5.1: General view of the front end website.

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Features that the frontend website provides to the system or customers are listed below:

- **Know About the company providing the service:**

When we chose our project our team decided to make a service provider company in Bangladesh. We are thinking and growing company in the online house rent management system. We created a unique property search platform that fills the gaps left by others in the market. We believe that our project is a trusted place to find a house in Bangladesh.

- **Find empty houses according to category:**

A user/customer from the front end section can easily see new posts and chose desire house in the category section. The category provided the realistic and determine the cultural practices in Bangladesh. The category is on the home page and select the different types of house and recommend to house rent. The home page is a reference to find a better home in your limited budget. A screen Shown the [Fig5.2] of categories is displayed below:

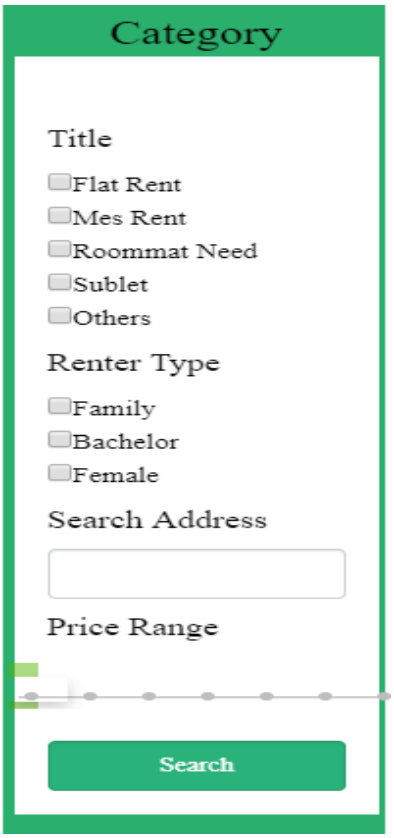

Figure 5.2: Category screens shot

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- **Get all updated post in the Home Page:**

Users can easily see the all-new post on the home page. All the new post is shown on the home page in top order. A user creates a post in this system the post automatically store at the top level in a home page. A sample is shown in the screen shown of [Fig5.3] below:

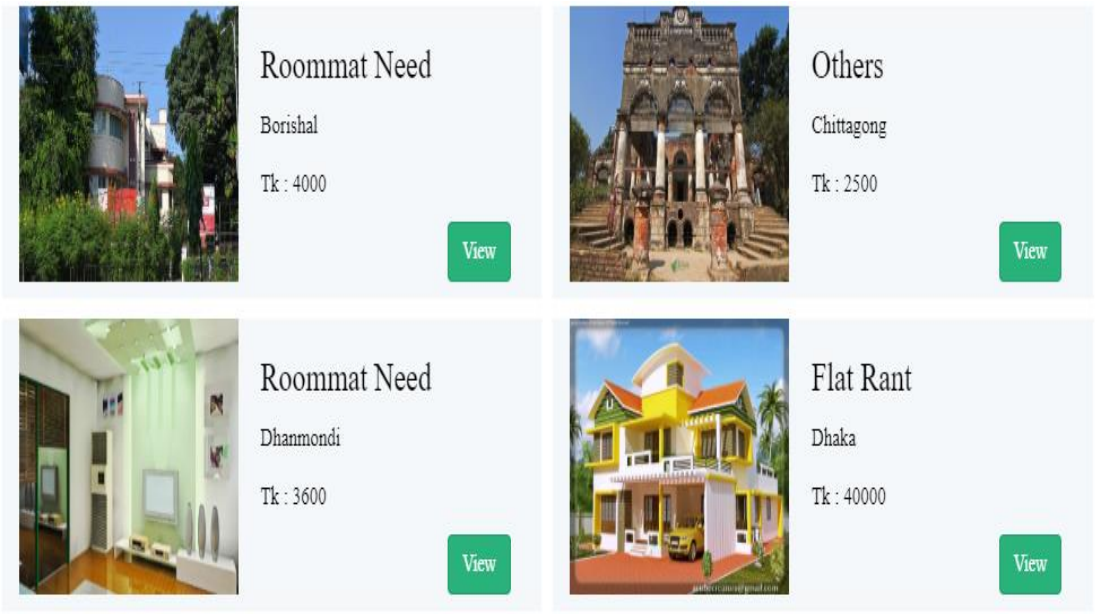

Figure 5.3: All post screenshot

- **See Details of any post posted:**

If users interested to see the details of any post – any visiting user can easily click on the button View than see the details of any post. A user can see the details about the house condition. In details, user sees some current images. Know about the rental price, house condition in details, types of renters, number of bedrooms, number of a kitchen, number of bathrooms, contacts with house owners, and also using google map to locate the house and easily found the house. A screenshot is shown of [Fig5.4] about the details view:

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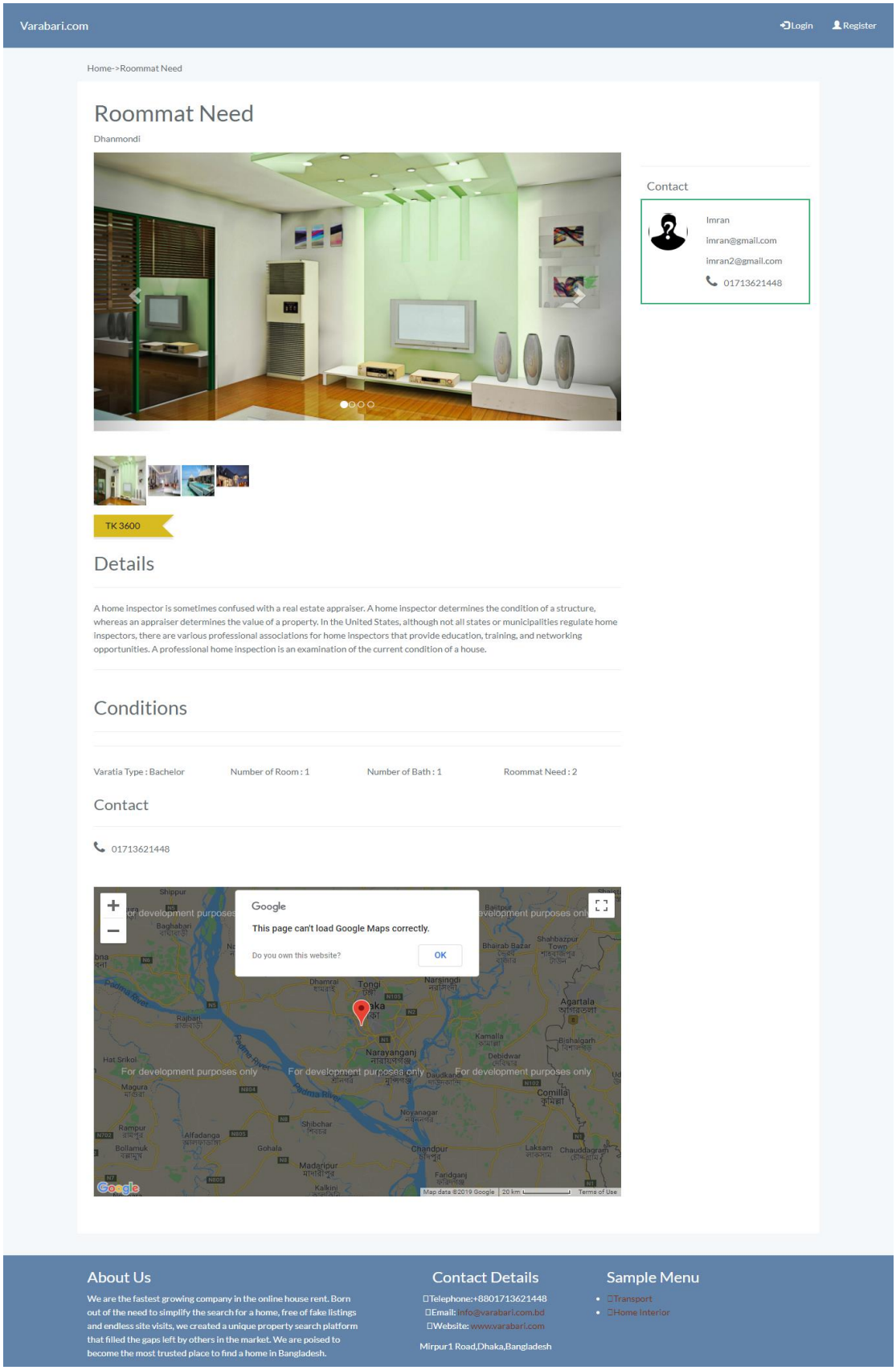

Figure 5.4: Post details Screenshot

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- **Perform Registration to open an account:**

Potential clients interested to take advantage of the system can register easily using the registration form. A user must be registered in the system than he/she can be access to post a post. Otherwise can't post in the system. The registration form you will give the correct information. A sample of the registration form is provided shown in [Fig 5.5]:

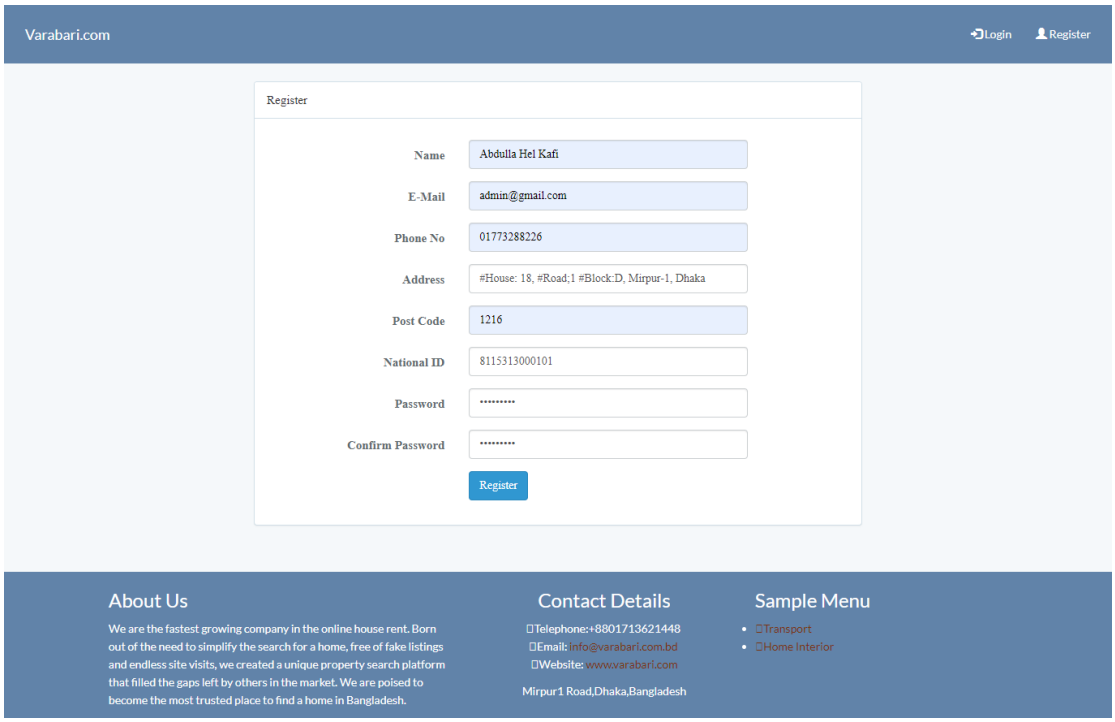

Figure 5.5: Registration form Screenshot

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- **Login Form to log in to respected panels:**

After finishing the registration. Admin and Users can use the login form to login to their desired panels. A sample of the login form is provided shown in [Fig 5.6]:

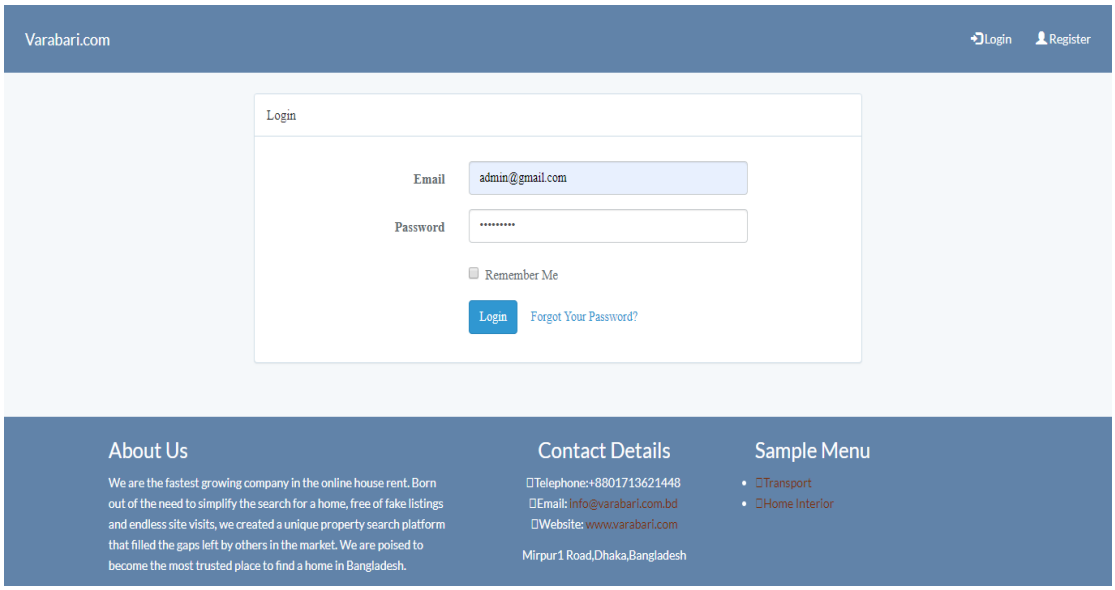

Figure 5.6: Login form screenshot

Admin / Backend Features:

The back end is also developed beautifully and by keeping in mind about user-friendliness and usability. The back end admin panel is shown below in the screen shown of [Fig 5.7]:

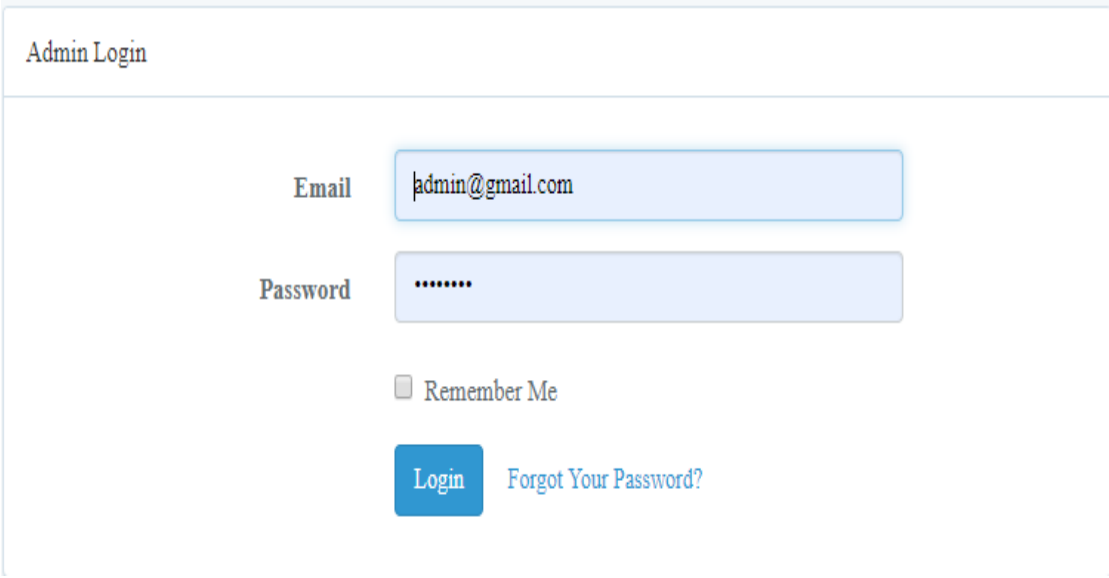

Figure 5.7: Admin Login interface screenshot

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After finish, Admin Login admin can see the user list and how many posts are given post each every user. The back end admin panel is shown below in the screen shown of [Fig 5.8]:

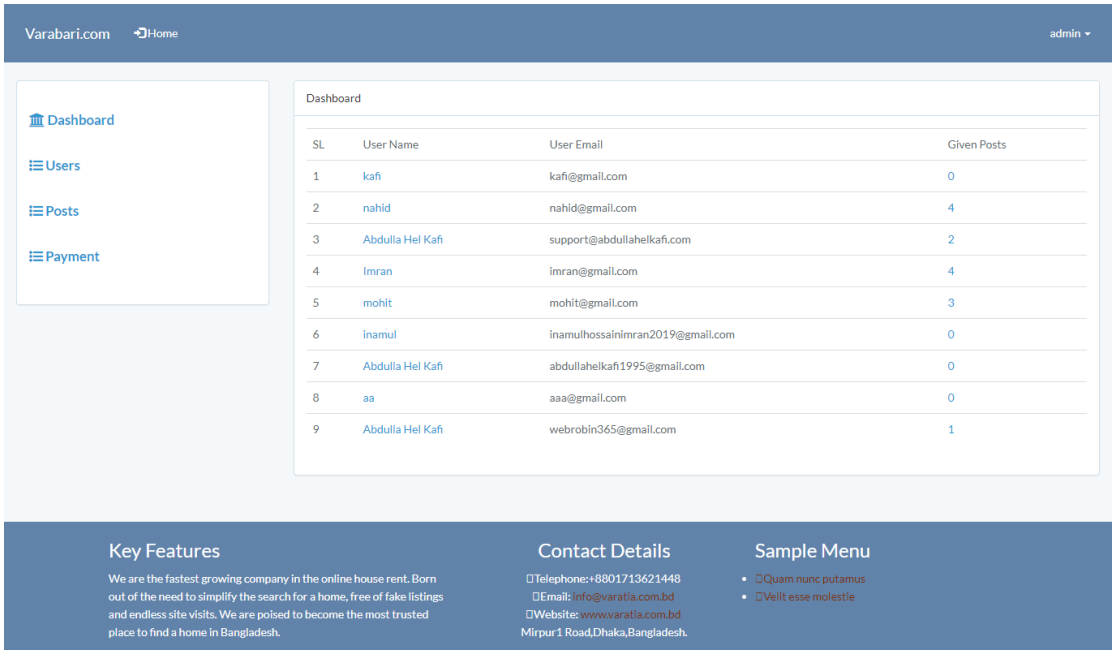

Figure 5.8: Admin panel screenshot

From the admin panel – Admin can perform the following tasks.

- **View Users list and users post /View/Delete**

Admin can view a list of all existing posts by user and from there if required can easily view / Delete any post. The screen is shown [Fig 5.9] below:

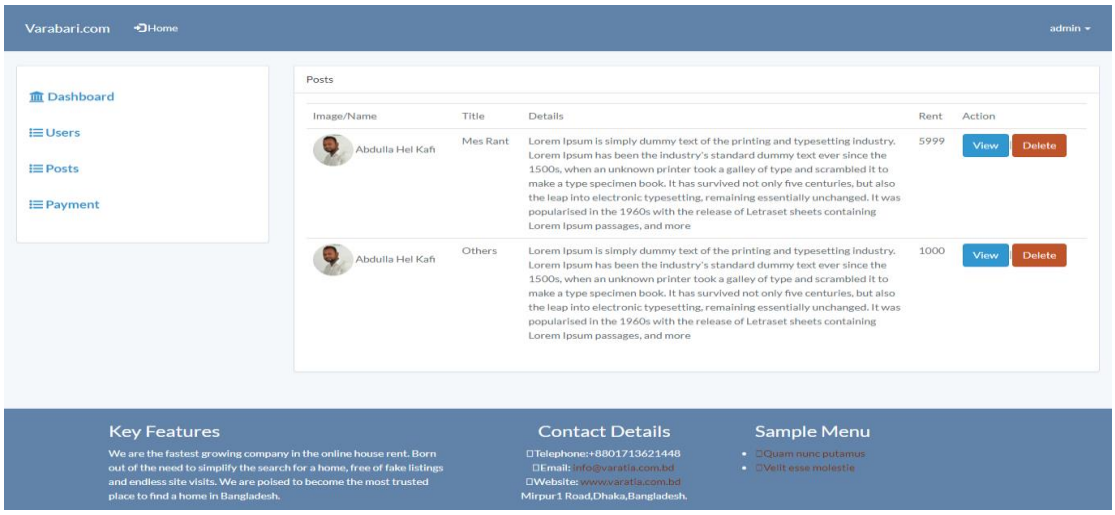

Figure 5.9: Users post view by admin panel screenshot

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- **Add Post for new empty houses User / Customers and Accept / Reject**

Admin can add a post if required and can publish that post in the front end. The add post form and screen is shown below in the screen shown of [Fig 5.10]:

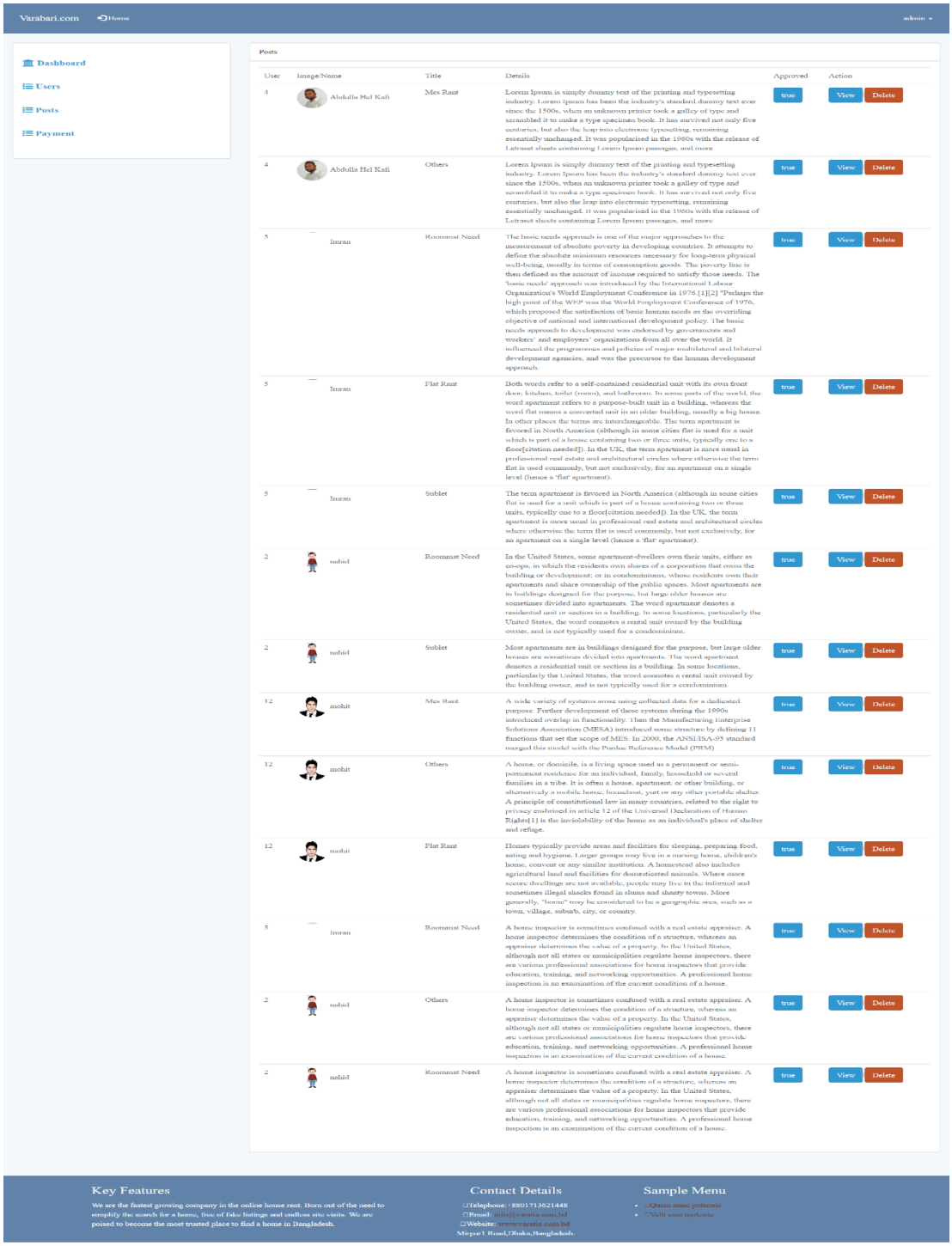

Figure 5.10: New post approving screenshot

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CHAPTER 6

REQUIREMENTS

Requirement Analysis

Requirements Analysis is the process of defining the expectations of the users for an application that is to be built or modified. Requirement analysis is needed to be fulfilled our project. A project makes so robust and dynamic by the requirement analysis and requirements are the main pillars of the project. Tools or diagram representing can be used to make the scenario clear for the right process of requirement analysis.

Technical Requirements

These are aspects such as performance, reliability, and availability that your project must meet on in order to proceed with a project. In software projects, technical requirements typically refer to how the software is built,

The technical requirements are listed below:

- Execution time.
- Responsive and usable on any device and platform.
- Eliminate external threats from virus, hacker, and cracker.
- Regular data backup facility.
- Protection from logical and physical threats.
- Provide good password protection

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Requirements of Components:

Hardware Requirements:

To run this project need minimum one pc and internet connection need.

Processor	Intel Pentium/AMD processor(500 MHZ)
Motherboard	Any
RAM	512 or more
LAN	Any
AGP Card	Any
Sound Card	Any
Hard Disk /SSD	60GB
Floppy Disk(not mandatory)	1.44 MB
Casing	Any
Monitor	Any Color Monitor
Keyboard	Any
Mouse	Any
CD ROM (not mandatory)	Any

Table 6.1 Hardware Requirement.

Software Requirement

Software	**Usage**
Any version operating system	To start up the computer and coordinate all hardware components, application, and customized software.
Browser	All kind of web browser which supports JavaScript.

Table 6.2 Software Requirement

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CHAPTER 7

REQUIREMENT ANALYSIS

Design

This system House Rent Management System has a lot of modules to work on. This system has mainly three type's user Admin, Guest, and Register.

Registration

The user must provide some information for their registration. The registration process is very easy but dynamic. When registration is complete a user provides features and functionality of this system. A registered user can create own post for renting adds. Admin can approve/reject registration – and users can securely use their panel once registered.

User Profile Module

A user can view/edit/update their profile. When a user's registration is complete the user maintained his profile and get a control panel within the system. A registered user creates post before the payment is done.A user can like, comment, feedback give the others post. And user view, edit, update, delete their own post.

Admin Module

This feature is the key to all system. Admin controls all the system and create, maintain and update the system. Admin can accept or reject the user registration and also view, edit, update and delete the use of the database. Admin can hold, accept or reject the post and also view, update or delete of any post. In that system, users will not get permitted. Admin can produce information and perform to add a new post, user, categories and much other information which will be represented and worked on the form the front end by the users.

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System Design

System design will let us now know and understand how the system is working internally and to estimate the gravity of the system. The system design should contain a standard diagram to represent the usage and functions that are taking place underneath each event that is being triggered in the system. The system design contains a use case diagram and entity relationship diagram.

Use case diagrams

An UML (unified modeling language) is use case diagrams and are an important tool to represent a system interaction among the elements of graphic design. System identifies, analysis, clarify, developed organization or operated commonly used on it. A Use Case diagram contains three major aspects:

- ✓ One or multiple performers, generally connected to individuals with the system.
- ✓ A player playing within around the system which follows the specific roles.
- ✓ The connection among the performers and the use cases.

To illustrate the system the components or the modules of the system has to be broken into smaller fractions and pieces and then the Use Case diagram should be implemented. Otherwise, the scope of Use Case will not facilitate us to understand the functionality of the system if drawn for the total system at a time.

Below few key modules are broken down and identified. The Use Case diagram is then implemented to give us a clear idea of how this module is working [Fig 7.1].

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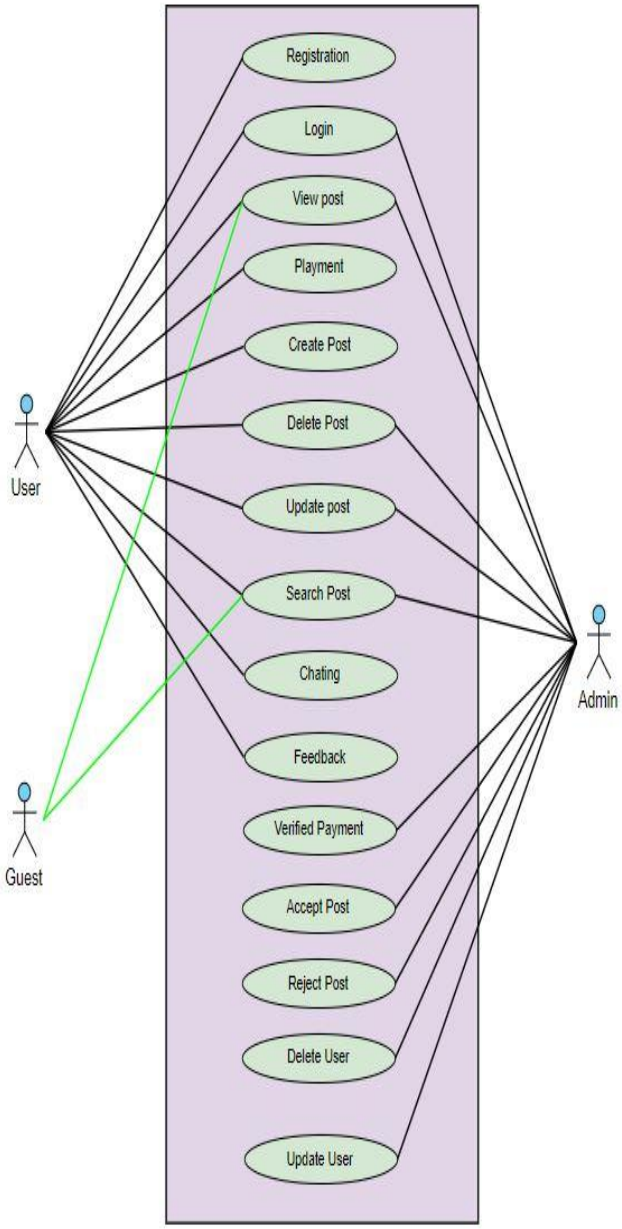

Figure 7.1: Use case diagram front end module

Flowchart (Process Model)

A House rent flowchart process is a model or diagram that represents a graphical process or workflows. The flowchart can also be represented as an algorithm in diagrammatic. There are a different design or graphical methods, such as a data-flow diagram, flowchart, etc.

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Guest flowchart

A Flowchart showing Flowchart Guest arrival. Guest can use this model. [Fig7.2.0].

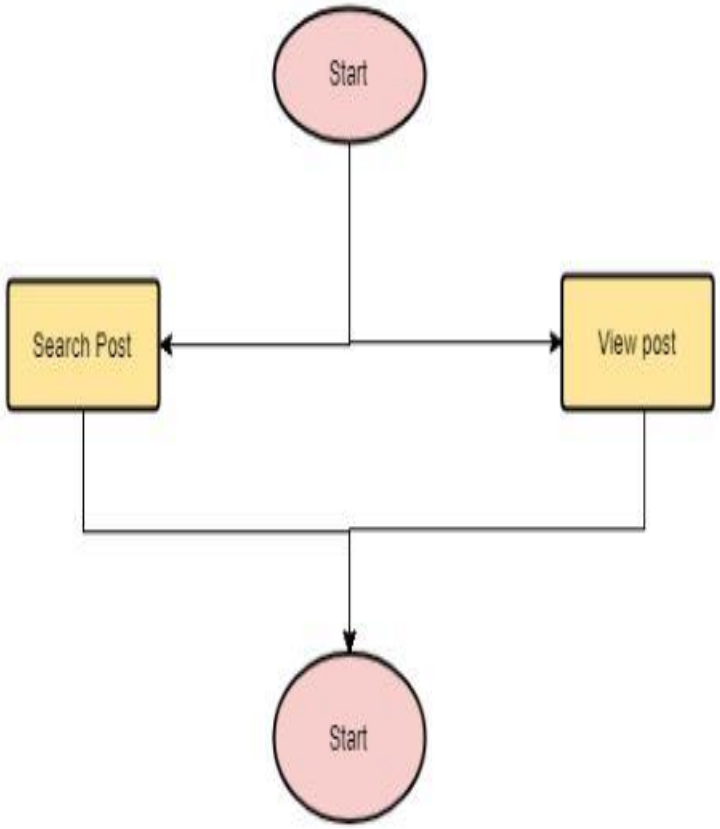

Figure 7.2.0: Guest flowchart model

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Registration Users flowchart

A Flowchart showing Flowchart user arrival. The user can use this model. [Fig7.2.1].

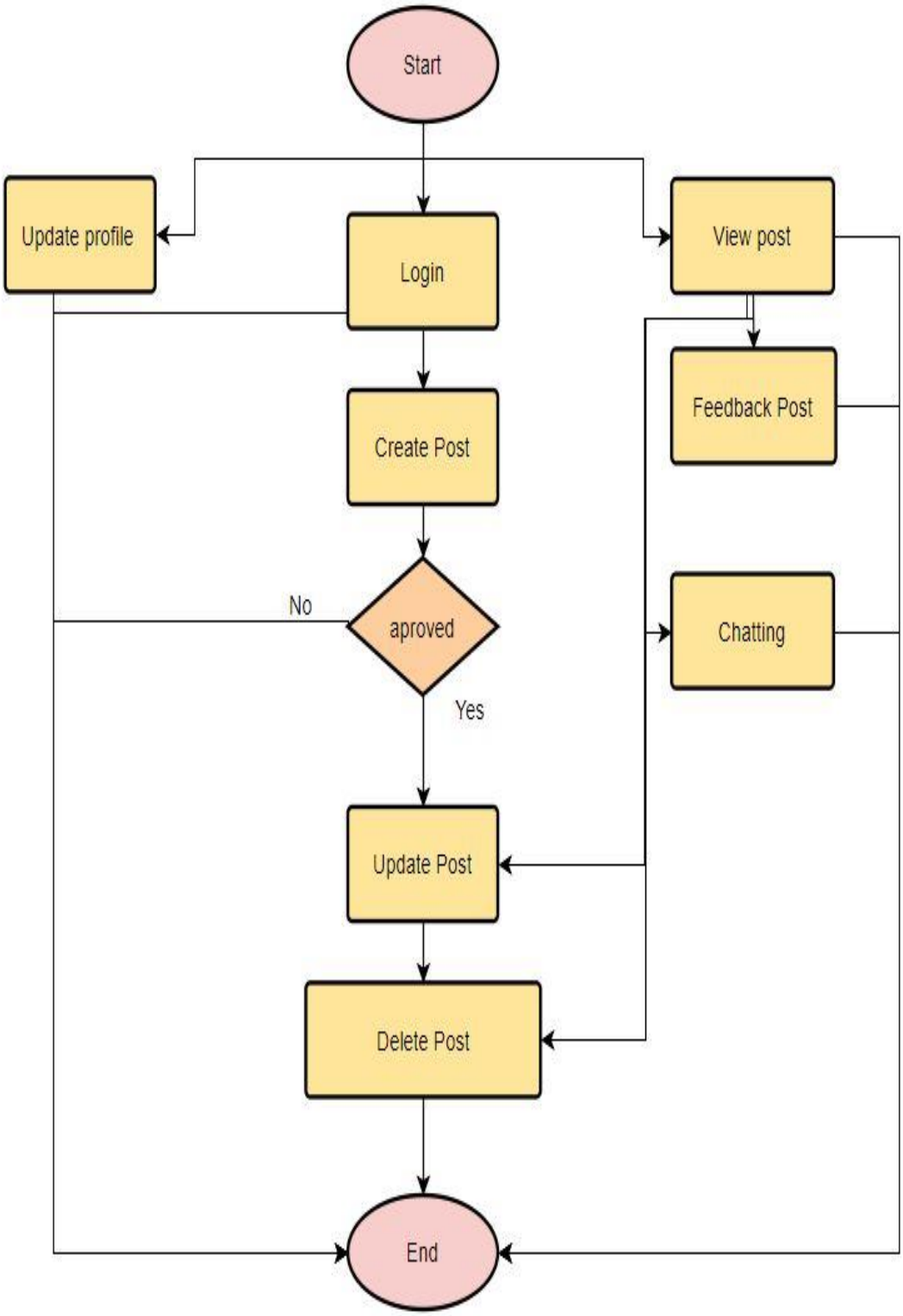

Figure 7.2.1: User flowchart model

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Admin flowchart

A Flowchart showing Flowchart admin arrival. Admin can use this model. [Fig7.2.2].

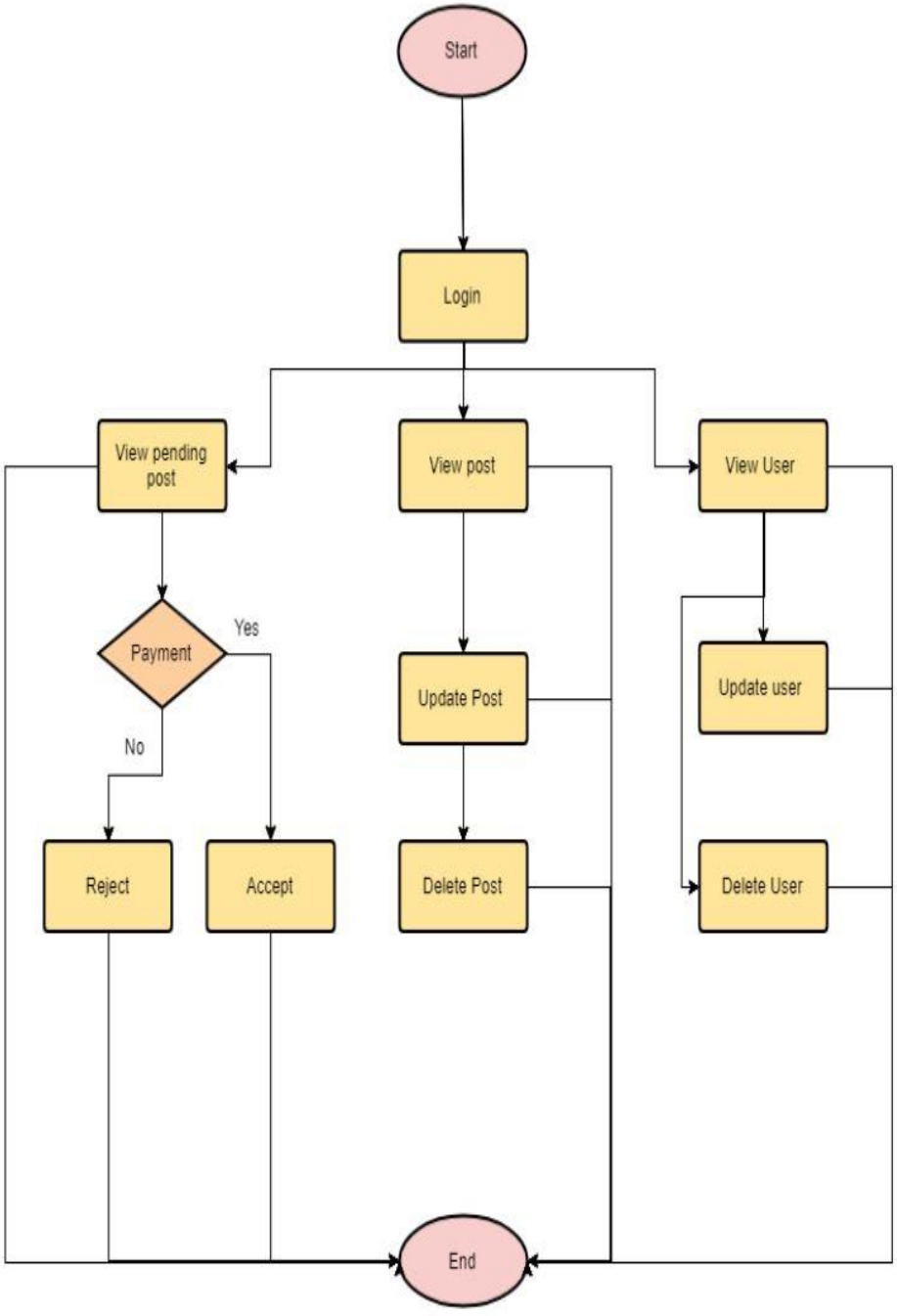

Figure 7.2.2: Admin flowchart model

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Registration / Login Module:

That is a design on registration for a new user and their login method. When registration is successful and admin can approve their registration. Users can use their own panel and perform tasks. [Fig7.3.].

Use case diagram

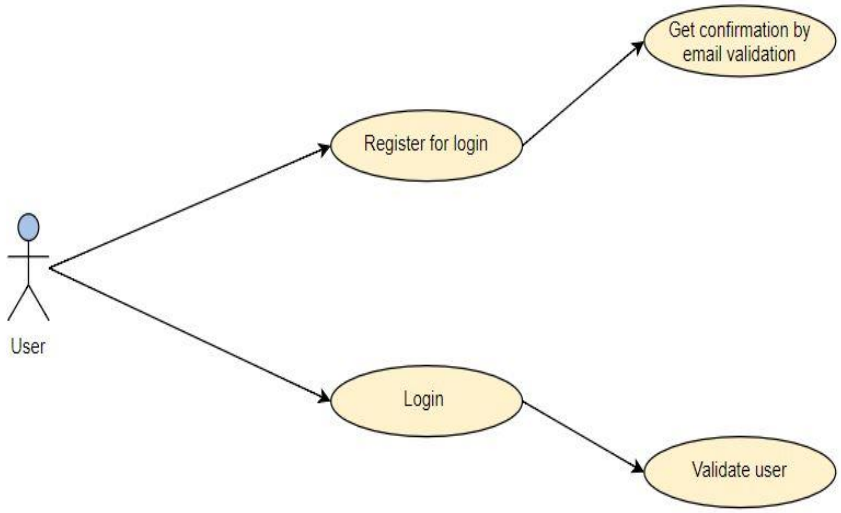

Figure 7.3: Design registration and login module for Use case diagram

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Add New Post Module:

To add a new post – you must be login fast and then pay payment then the user post them in the system. Admin has to approve the advertisement to be shown [Fig 7.4] in the front end.

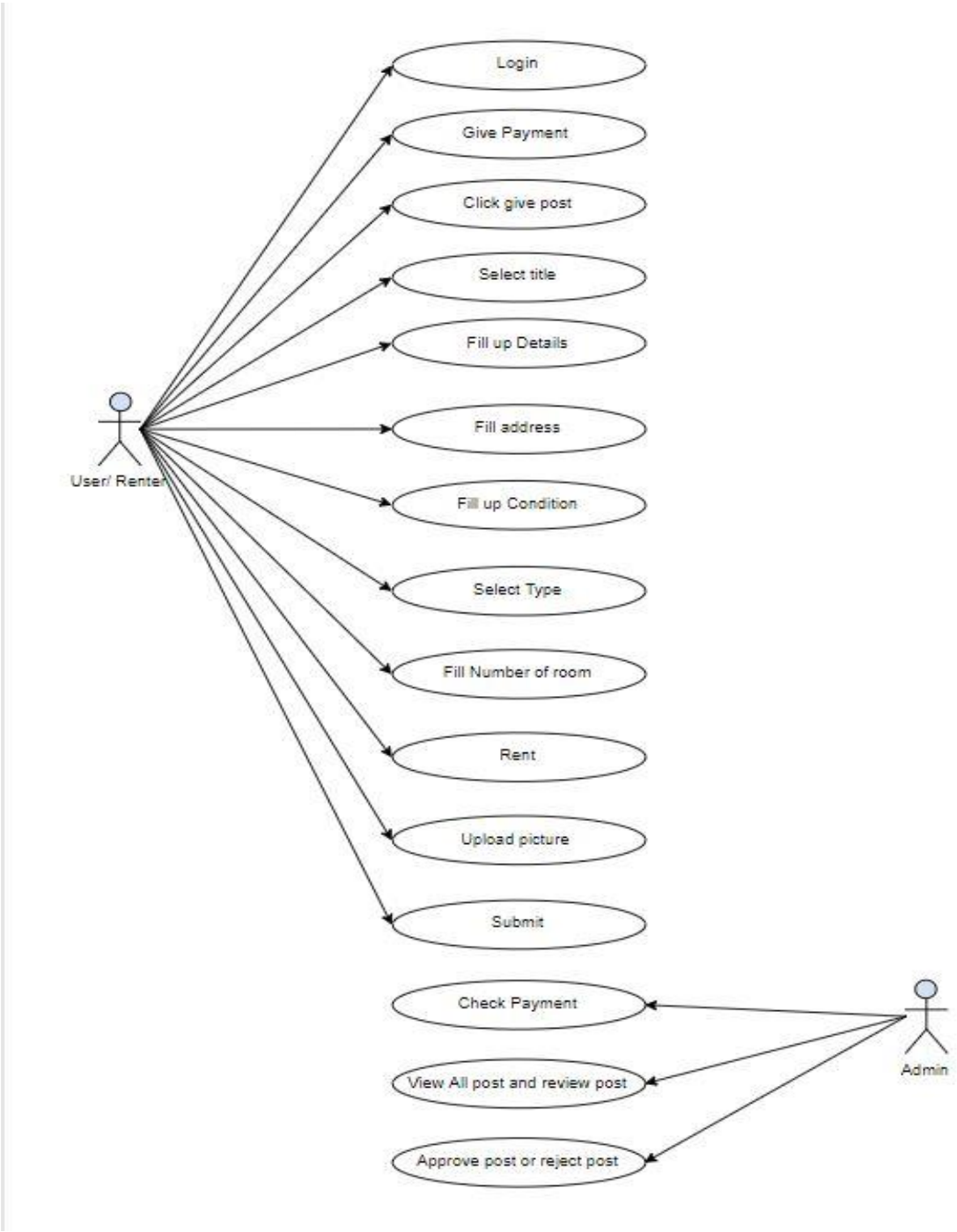

Figure 7.4: Use case diagram for publishing a new post

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Relationship of Entity Diagram

The entity-relationship (ER) data model is created out of the activity of utilizing commercially accessible DBMS to model application database and this model is high-level data. Business systems depended on the various leveled and network approach.

The database structure, utilizing the ER Model, is typically displayed pictorially by the means of entity-relationship, i.e. ER diagram. It contains an ER Diagram which is final for the overall comfort and gab on the ER Model and follows the structure of a logical database.

Entity: An object is an entity that store information in a system within a model. Which data is collected it includes all those things. An entity or object can be the location, people, sex, which is store in a database. The feature of objects are must have an attribute, and a unique data (primary). Each entity is made up of some 'attributes' which represent the entity.

Entities Examples:

- **People:** Teacher, Student, Banker
- **Location:** Home, School, Office
- **Sex:** Male, Female

Attributes: Generally attribute build a character and interpret the feature of an object. In a (DBMS) database management system it assigns a database element or database area.

For example, an invoice system, the attribute may be the serial, name, date and price or something else.

An Entity Set: An entity set is a set of entities of the same type that share the same properties.

Example: A set of all people, location, sex

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CHAPTER 8

Design Database

Database Definition

Database information is used to store topical and personality. Data store in database table by rows and columns wise. A computer stored data sets in a database. Build a structure of database and it is use easily accessible to data. A data model to find detailed of a database to process the database design. The logical data design take all the logical needed and physical model pick and parameters of physical storage. A data definition language to need generate a design, which is used to generate a database.

Build a database by the collection of data that's stored in a computer and that can easily be use, add or modify. An organization used a database to store data in a particular method, manage and retrieve information. Managing modern databases are using a (DBMS) database management system.

Database Languages

A system of database is take step to a language of data definition and most commonly database plan specify and manipulating data to express queries and updates in the database. SQL language is used to study to definition a data and this language is manipulation, such as the extensively used the language SQL. Developing any application or any web based applications I think MySQL is the Choice. In our project House Rent Management System, we used a more native version of SQL database language commonly known as MySQL.

Normalization Process

Normalization is the process reduce redundancy and organizing the data. A database dividing two or more table and identify relationship among the tables. Normalization process can deletion, addition, updating in a particular data or a table in separately

Normalization rules are divided into the following normal forms:

- First normal form
- Second normal form
- Third normal form

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Table Category:

Table category is used to store categories that are used later to categorize all posts. The screen shown of [Fig 8.1] showing the structure of table category:

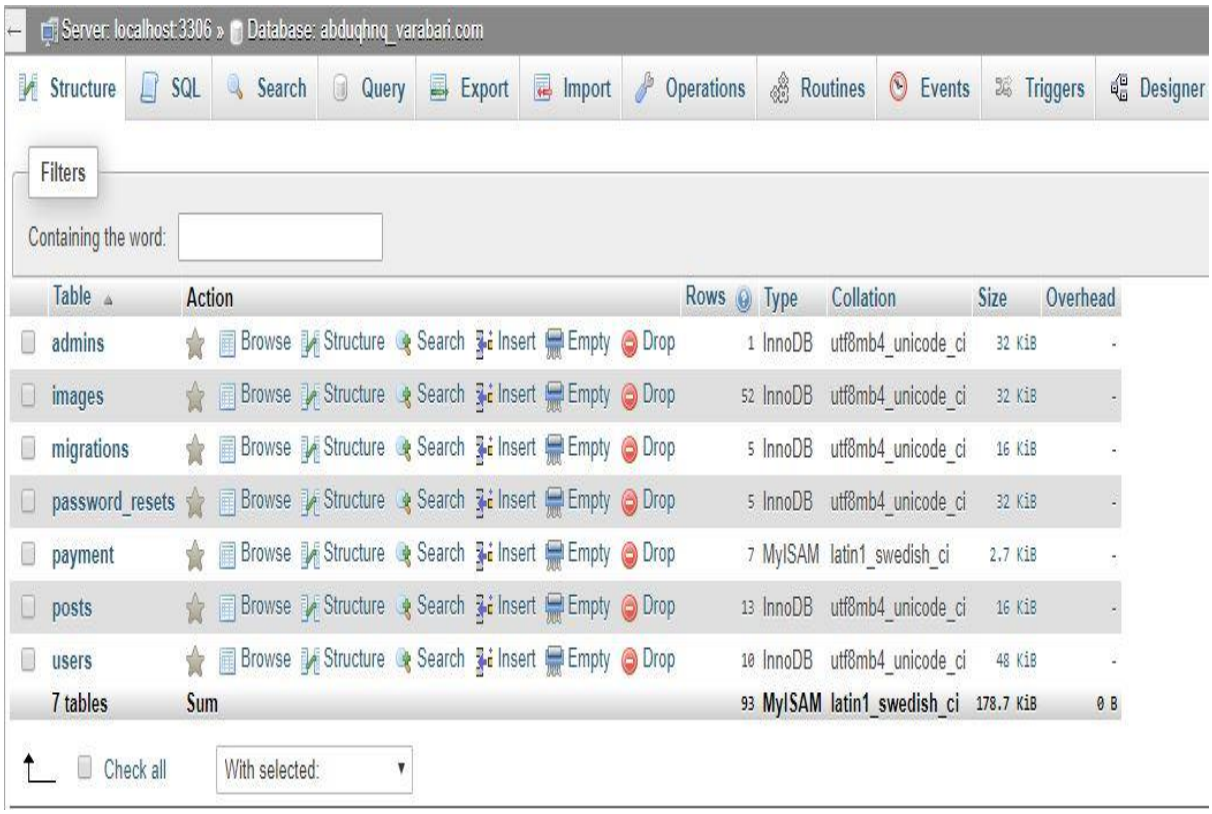

Figure 8.1: Database Design

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Table Post:

Table all post is used to store created by users. The showing of [Fig 8.2] of all post in a table:

Options

	id	user_id	title	details	address	lat	longi	number_of_room	number_of_bath	roommat_number	family_bachelor	conditions	rent	approve	created_at	updated_at
Edit Copy Delete	21	4	Mes Rant	Lorem Ipsum is simply dummy text of the printing a...	Chittagong	NULL	NULL	2	NULL	NULL	Bachelor	Lorem Ipsum is simply dummy text of the printing a...	5999	false	2019-02-25 03:36:02	2019-04-02 11:45:13
Edit Copy Delete	22	4	Others	Lorem Ipsum is simply dummy text of the printing a...	Rangpur	NULL	NULL	1	NULL	NULL	Female	Lorem Ipsum is simply dummy text of the printing a...	1000	false	2019-02-25 03:39:42	2019-04-02 11:45:10
Edit Copy Delete	32	5	Roommat Need	The basic needs approach is one of the major appro...	pabna	24.006355	89.249298	1	2	2	Bachelor	NULL	1800	true	2019-03-27 20:03:13	2019-03-31 15:59:49
Edit Copy Delete	33	5	Flat Rant	Both words refer to a self-contained residential u...	savar	23.705957	90.412819	2	2	NULL	Bachelor	The term apartment is favored in North America (al...	18000	true	2019-03-27 20:08:30	2019-03-27 20:14:24
Edit Copy Delete	34	5	Sublet	The term apartment is favored in North America (al...	Rajshahi	24.556528	88.937368	1	1	NULL	NULL	NULL	11000	true	2019-03-27 20:11:37	2019-03-27 20:41:51
Edit Copy Delete	35	2	Roommat Need	In the United States, some apartment-dwellers own ...	Gazipur	23.99808	90.422	1	1	2	Bachelor	NULL	3200	true	2019-03-27 20:22:02	2019-03-27 20:25:10
Edit Copy Delete	36	2	Sublet	Most apartments are in buildings designed for the ...	Ashulia	23.892281	90.361396	1	1	2	Bachelor	NULL	25000	false	2019-03-27 20:24:05	2019-04-02 11:45:18
Edit Copy Delete	37	12	Mes Rant	A wide variety of systems arose using collected da...	Uttara	23.875457	90.399626	2	2	NULL	NULL	NULL	8000	true	2019-03-27 20:28:25	2019-03-27 20:40:27
Edit Copy Delete	38	12	Others	A home, or domicile, is a living space used as a p...	Bogra	24.848086	89.372953	3	3	NULL	NULL	NULL	40000	true	2019-03-27 20:32:45	2019-03-27 20:40:16
Edit Copy Delete	39	12	Flat Rant	Homes typically provide areas and facilities for s...	Dhaka	24.098379	90.328712	2	2	NULL	Family	A home inspector is sometimes confused with a real...	40000	true	2019-03-27 20:36:24	2019-03-27 20:40:43
Edit Copy Delete	40	5	Roommat Need	A home inspector is sometimes confused with a real...	Dhanmondi	23.74707	90.375748	1	1	2	Bachelor	NULL	3600	true	2019-03-27 20:39:43	2019-03-27 20:40:39
Edit Copy Delete	41	2	Others	A home inspector is sometimes confused with a real...	Chittagong	22.33037	91.832626	1	1	NULL	Family	NULL	2500	true	2019-03-27 20:49:36	2019-03-27 20:53:00
Edit Copy Delete	42	2	Roommat Need	A home inspector is sometimes confused with a real...	Borishal	23.744016	90.414641	1	1	2	Bachelor	NULL	4000	true	2019-03-27 20:52:15	2019-03-27 20:53:05

Figure 8.2: All post database design

Table Registration:

Table registration is used to store all user information who registers from the front end. This table is important and will serve as the main user table for all general users. The screen showing of [Fig 8.3] structure of table registration:

+ Options

	id	name	email	phone_no	post_code	nid_no	password	photo	address	lat	longi	optional_phone	optional_email	remember_tok
Edit Copy Delete	1	kafi	kafi@gmail.com	01444444444			$2y$10$OtrgAHrj9pYQNK5sKsXLBO12KP.1gUXEIKF4eQSfH5X...	1.jpg	mirpur-1,D-Block	23.8001291	90.3475499	NULL	NULL	jY7qfFhNvJlxbl
Edit Copy Delete	2	nahid	nahid@gmail.com	01931357185			$2y$10$9S4SekOlZFKnkDfd9HsPkuo7aOxrGXbc8VpZhEwBGU...	2.jpg	gazipur	NULL	NULL	01811111111	nahid15-531@diu.edu.bd	OzpyAO0HOP
Edit Copy Delete	4	Abdulla Hel Kafi	support@abdullahelkafi.com	01773288226			$2y$10$GbggFtCyCdHXb.BVpf2zy.4n9w3B71oiHeTmhebzg3n...	4.jpg	Dhaka	NULL	NULL	01773288226	NULL	ohj6us0sn8PsF
Edit Copy Delete	5	Imran	imran@gmail.com	01713621448			$2y$10$SRlRP9DVeJJPstph5mOeJduhyKHMTHJJiP9mV.bGD.9/...	5.jpg	pabna	24.045958	90.032723	01516163774	imran2@gmail.com	KL7rJ7zeTDio
Edit Copy Delete	9	mokbul	mokbul15-469@diu.edu.bd	01778207719		4196951513	$2y$10$OdFJkbU.9ZmlYH1h5Om7jumM/SmR3GPE71ipgAm4EF0...	NULL	NULL	NULL	NULL	NULL	NULL	8HhdfGYrKqm
Edit Copy Delete	12	mohit	mohit@gmail.com	01512	1663	015642	$2y$10$rK4JFFgNfQQG5oTkA4ypM.sgnQJNZP0PCmXgDaAvIdL...	12.jpg	savar	NULL	NULL	NULL	NULL	z3yzT2MkjcSD
Edit Copy Delete	13	inamul	inamulhossainimran2019@gmail.com	017136214	2222	54654	$2y$10$D5LvBT9XU9fG3OKmPmT9O9pRUhfXOdlZOW7wNOQYK...	NULL	dhaka1	NULL	NULL	NULL	NULL	TUUjiRusCbO
Edit Copy Delete	14	Abdulla Hel Kafi	abdullahelkafi1995@gmail.com	01684378507	1216	199581153130001O1	$2y$10$njn4Y1reSkhzVz21uTcoze8mZRhh206yIaluY54.09U...	NULL	mirpur, dhaka, bd	NULL	NULL	NULL	NULL	NULL
Edit Copy Delete	16	aa	aaa@gmail.com	015121	1663	01564221	$2y$10$CRL4HHfw39DAduycjFUBeiMRLkrU8iGlWOt8CbqALF...	NULL	savar	NULL	NULL	NULL	NULL	vsqamQsqrkB2
Edit Copy Delete	19	Abdulla Hel Kafi	webrobin365@gmail.com	017732882263	1216	1995811531300010 2	$2y$10$ovgs1.6aGgD32e4QD.oBDOBlmwCN5dMtvcF5DmEBjm....	NULL	dhaka	NULL	NULL	NULL	NULL	NULL

Check all With selected: Edit Copy Delete Export

Figure 8.3: Design Registration database

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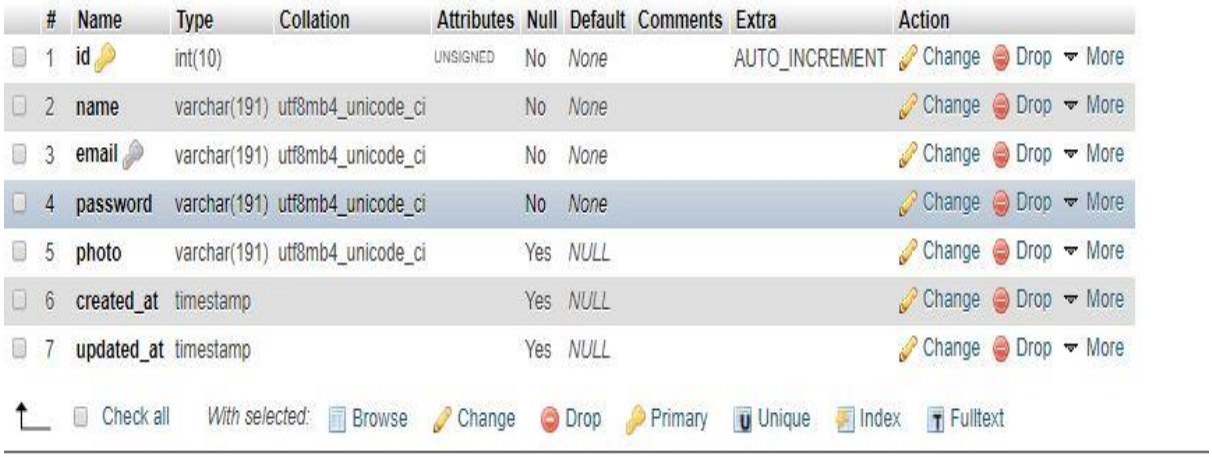
Table Admin:

Table all information for admin. It is very important for admin and admin all information store here. The showing of [Fig 8.4] is an admin table:



#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(10)		UNSIGNED	No	None		AUTO_INCREMENT	Change Drop More
2	name	varchar(191)	utf8mb4_unicode_ci		No	None			Change Drop More
3	email	varchar(191)	utf8mb4_unicode_ci		No	None			Change Drop More
4	password	varchar(191)	utf8mb4_unicode_ci		No	None			Change Drop More
5	photo	varchar(191)	utf8mb4_unicode_ci		Yes	NULL			Change Drop More
6	created_at	timestamp			Yes	NULL			Change Drop More
7	updated_at	timestamp			Yes	NULL			Change Drop More

Check all With selected: Browse Change Drop Primary Unique Index Fulltext

Figure 8.4: Design admin database

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CHAPTER 9

SYSTEM TESTING

Testing

Software development process plugin testing in order to specialize.

- Testing is an approach that checking errors, and present error is not available.
- Testing is a method to show that a system that functions are correctly performed.
- Establishing confidence by the testing process that a system does and it is ethical.

Testing levels

Here we discuss about three testing of levels:

Testing of Unit

The process of unit testing is receiving design and running that in separation from the rest of the software manufacture by using comparing actual results and test cases prepared and also predicted results by design of the Module and the specifications of software products.

Integration Testing

Perform Bottom up integration testing we using integration and take positive Results in testing.

Testing of System

System testing complete on the project system test that every unit or module of the system is working accurately as desired. System testing provides insights about the system flaws and features that are not visible to normal users at the beginning. System testing is basically focused on testing the total system whether or not it is performing as expected.

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Functional Testing

Black box testing another name is functional testing. This type of testing is also performed in this project. Here we test the functionality of our program. Each function is identified and listed and then tested to see whether they produce the desired output.

System Testing Screen Shots

Testing the system thoroughly and taking screenshot to prove that the system is working as expected and producing output as it was supposed to.

❖ System Running:

The test is a success and the system runs accurately in localhost. The screen showing of [Fig 9.1] below:

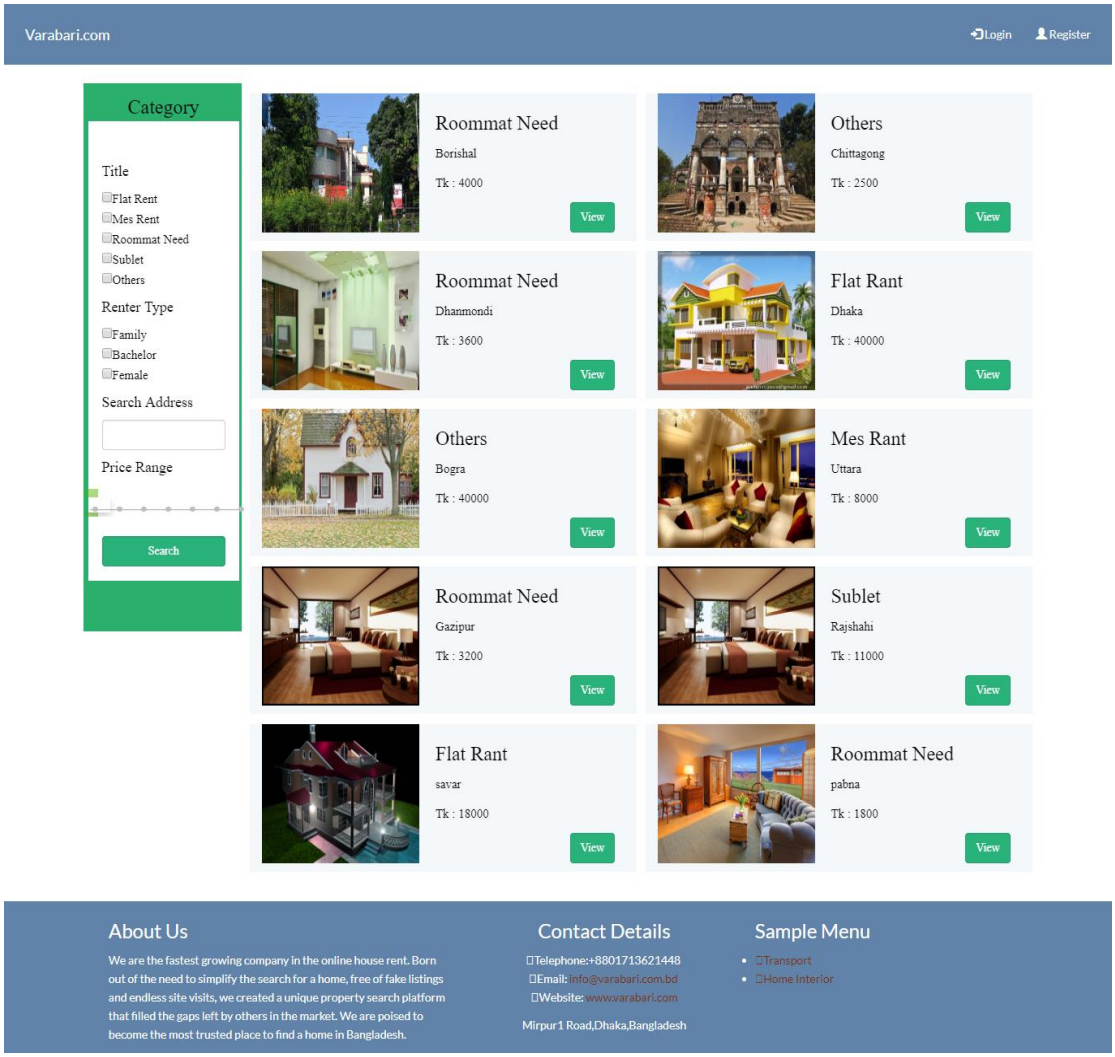

Figure 9.1: System run

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❖ **Viewing Details Post**

This test is to show that post details are viewable and can be viewed accurately. The test is a success and the screen shown of [Fig 9.2] showing that the module is working accurately

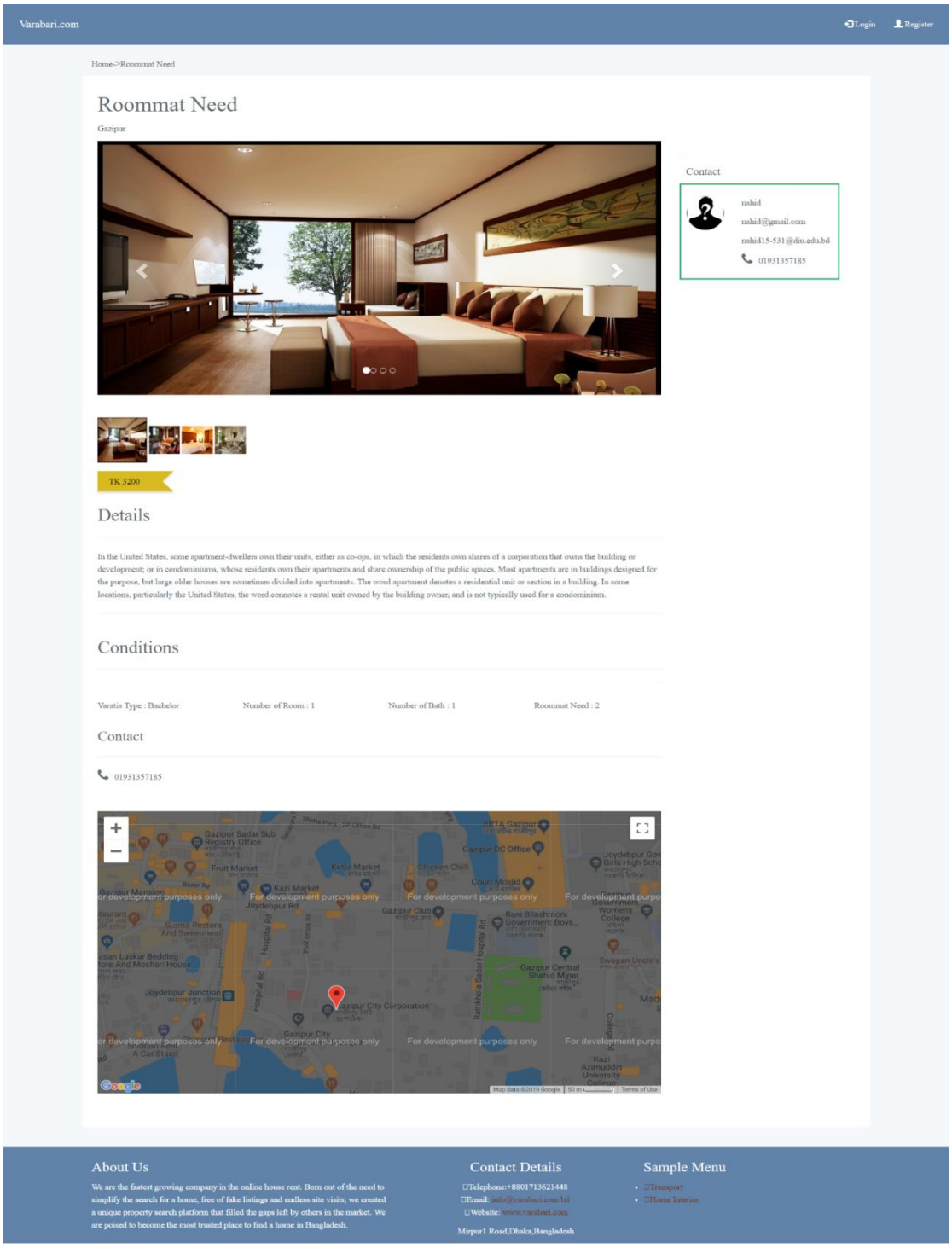

Figure 9.2: Post details runs accurately – test screenshot

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❖ New User Registration

The registration form comes up accurately. We are testing now that the registration form is working as it should. The first screen showing of [Fig 9.3] the registration form is filed and submitted:

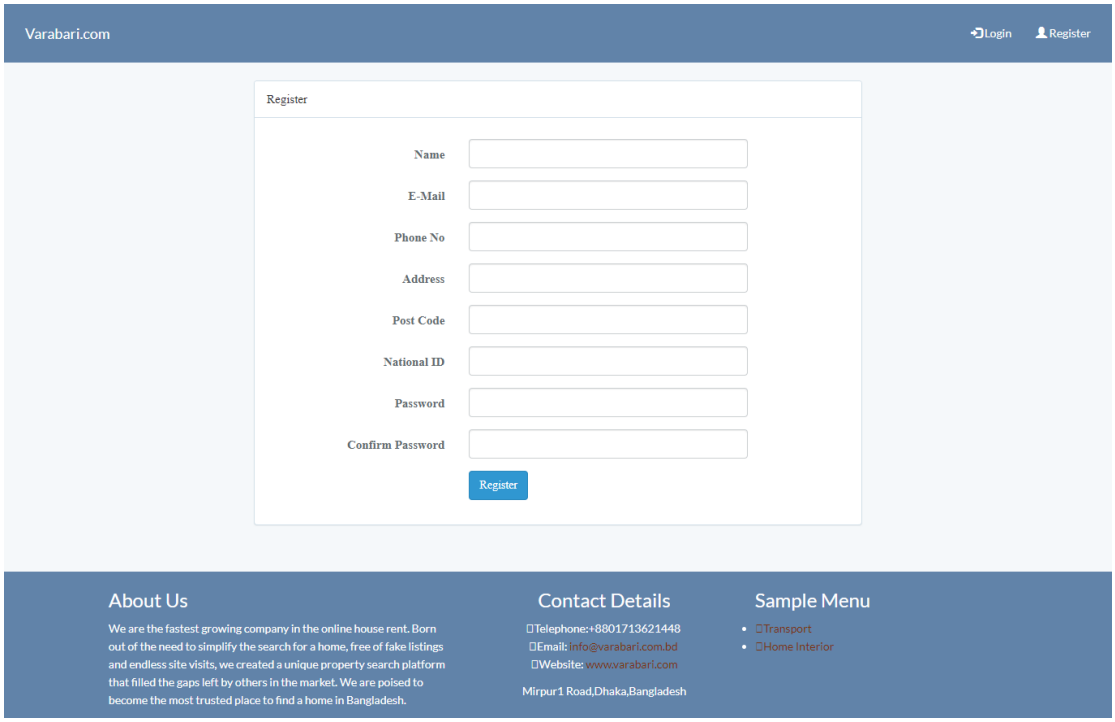

Figure 9.3: User registration form

❖ Admin Viewing Users

The new user information is received from the Admin panel. Only after that the user can log in using his own login page. The new registration is listed and showed in the screen shown of [Fig 9.4]:

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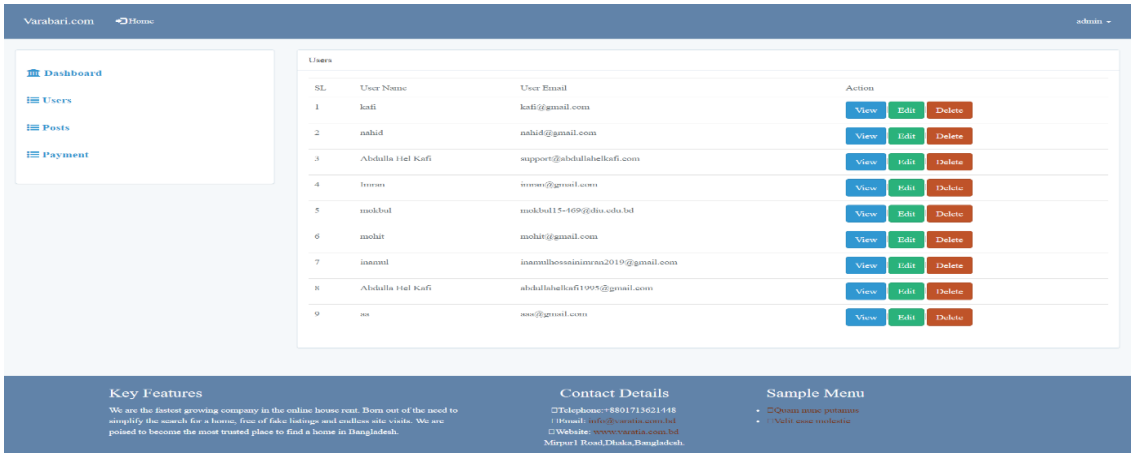

Figure 9.4: Viewing the registration of new users from the Admin panel

❖ Admin Panel login

Login to the admin panel. Admin should be able to login accurately and see admin panel. Showing of [Fig 9.5] below:

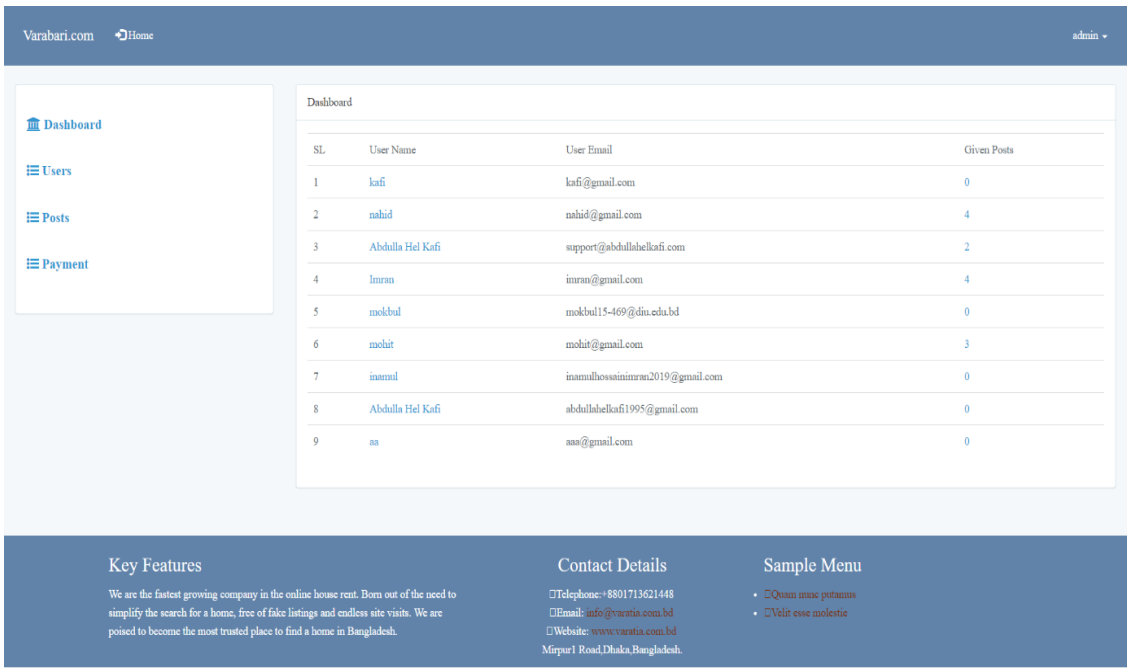

Figure 9.5: Log in to admin panel

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❖ **Payment**

Every user must have paid payment which has create a post. If any user doesn't pay payment that user post doesn't approve. Shown in [Fig 9.6]:

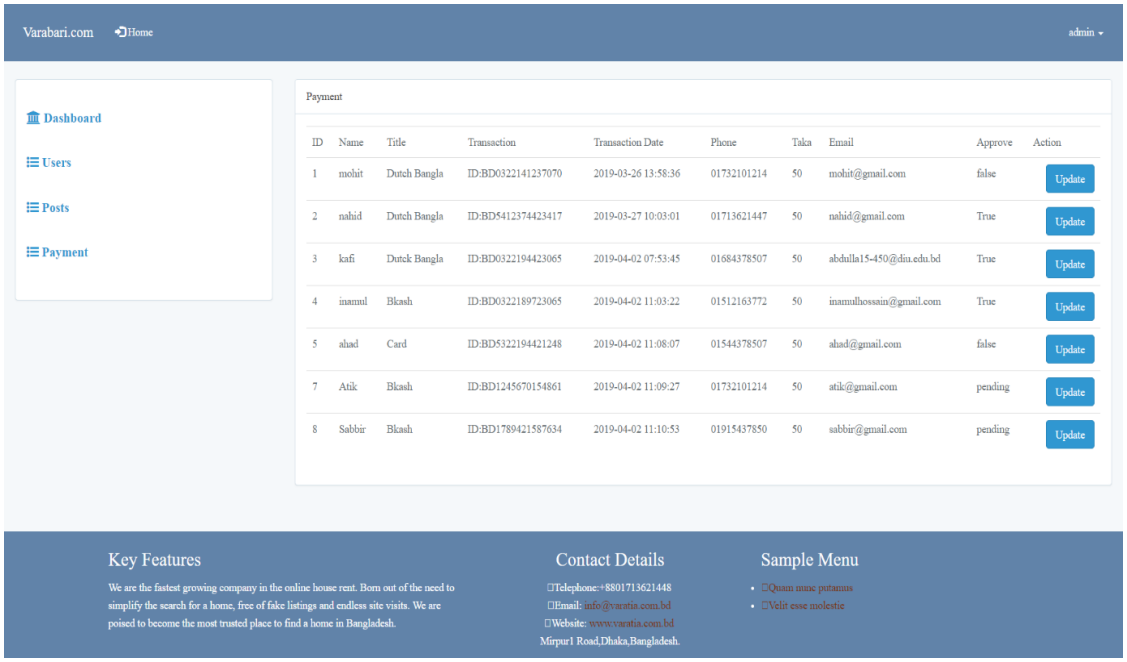

Figure 9.6: Admin checking payment system

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❖ Posting a new Post

To post a new post – Admin will create a new post and then accept the post to make it available in the front end. The screen showing of [Fig 9.7] the post is successfully created and published:

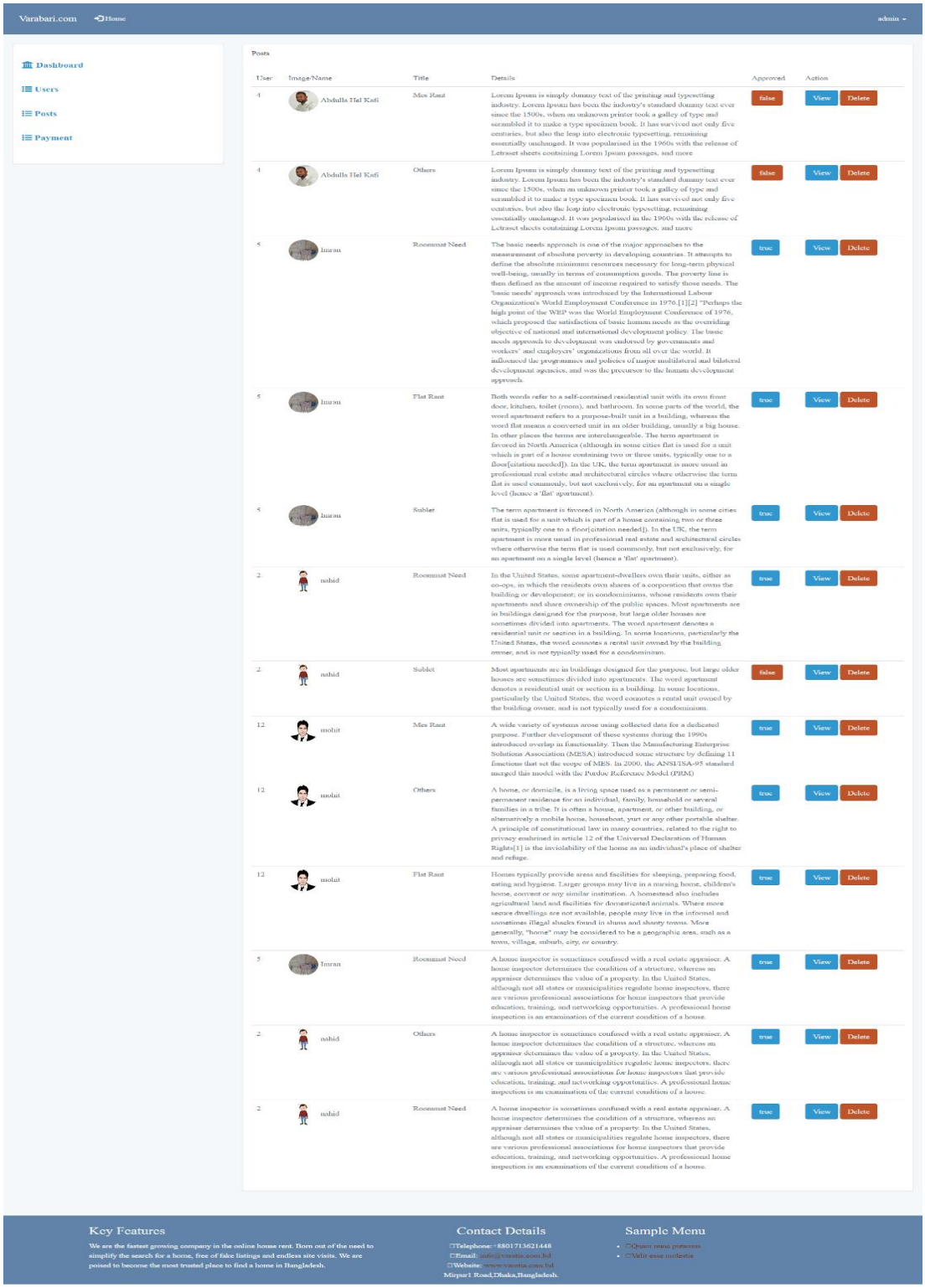

Figure 9.7: Admin panel view new post

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The post is successfully shown in the front end. The screen showing of [Fig 9.8] the system is working accurately:

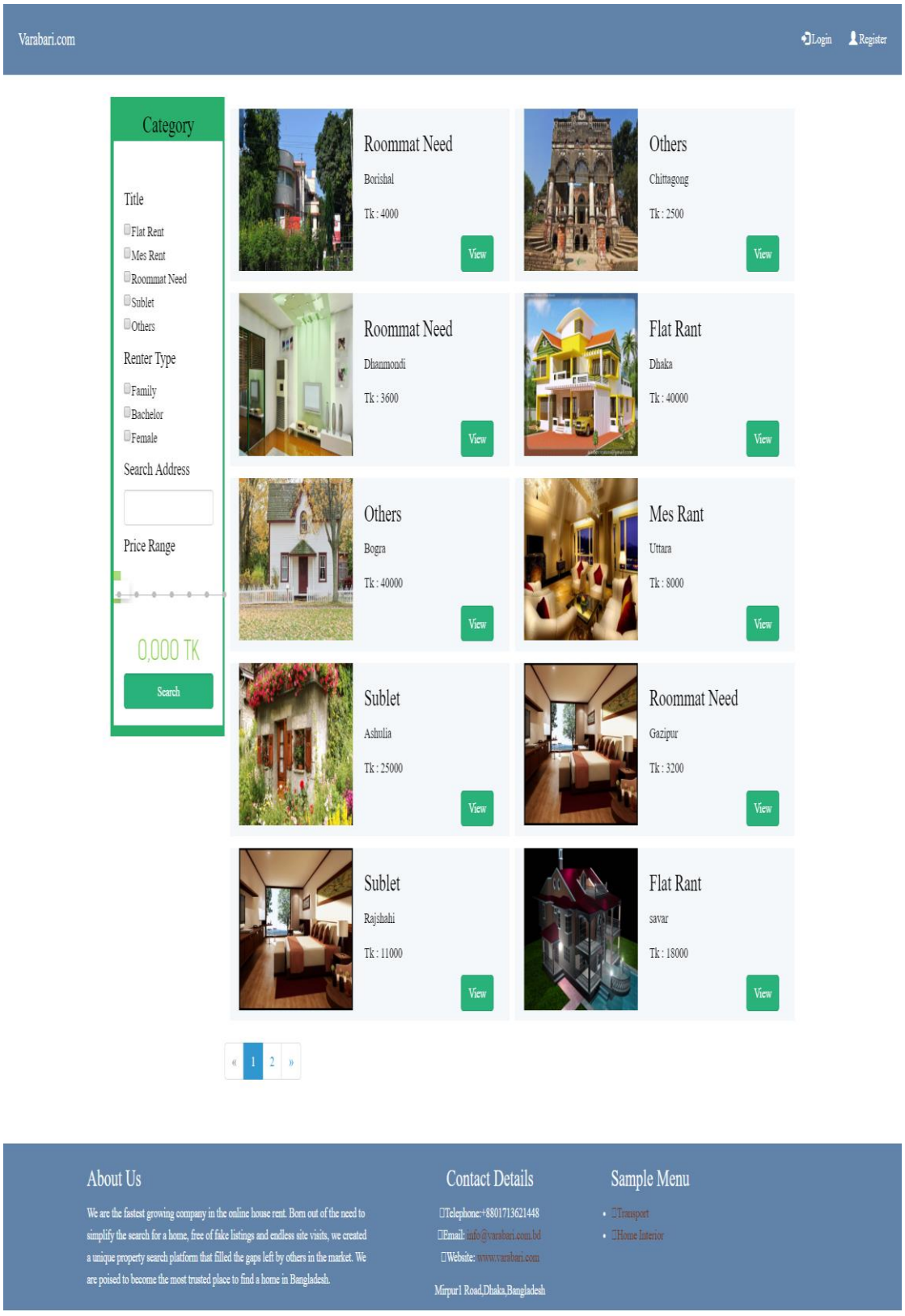

Figure 9.8: Post showed in front page

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CHAPTER 10

CONCLUSION

The project has been an opportunity to learn and implement new ideas about renting and customer service. We work in this project – we have visited many websites, learn many new methods – talk and take a review of many different people to work for this project dynamic – it was a very helpful learning experience for us. I specially thanks and honor my supervisor for his kind moderation and for his ability to explain the complex problem so easily for medium students like us to control and work as he planned.

Project Limitation:

The project House Rent project is designed and developed under academic excellence and due to the fact it has some advantages as well as some limitations. This project is listed and key limitations explained below:

- Real Life Implementation – the project is planned, developed and tested under the scope and boundary of academic excellence. The implementation of this project in real life to collect and facilitate house owners and renters thus is not possible.
- Interactions –The house owners and renters (customers) is the interaction between direct phone/email communications. This is a bit backward and less simplify for any users.

Future Development Scopes:

This work had focused on improving the House Rent Project is unique for our country and it has not been introduced to local house owners and renters. A lot of future development and improvements can be brought into the project to serve both parties accurately and to make the process and that a successful project:

- Live Chat – Improve both parties communication, freely and carefully live chat between house owners and renters and view or sharing their decision and easily getting rented and it can be effective for both.

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- Integrate Other Services – In this project mainly focused on providing an easy solution for owners and renters to rent a house. In this project, third-party services can also be integrated.
- Map-this project automatically collects the location when an owner creates a post. In that reason, a customer detects the location easily and also the customer present location to renting house location measurement by google map.
- Review in the video – in future this project can upload video by owners. It is much easier for renters to understand and observe the renting product and renter are interested to rent. Also, collect reviews in house owners / good comments to make the house more popular and attractive for new interested renters.
- Implementation –under academic scope we developed this project, but our planned it can be implemented nationally in real life for every place in our country.

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CHAPTER 11

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