

House Renting Solver

Version 1.00

Submitted To,

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Project Proposal

1 Problem:

Today many people in our country search for rental houses on foot, knocking from door to door. Sometimes it's really hard to get a proper rental house. It's very problematic and costly. It really needs a lot of time and affords. Even it seems very hard in new places. The idea that rental houses can be searched online is not grasped by many. Nowadays everything is getting e-based. So why not 'to-let'?

2 Objectives:

The idea of "House Renting Solver" solves the house searching problems in this modern time. The project intends to solve the 'to-let' issue by turning it into a web-based system. The system offers to the users a proper description of 'to-let' houses in his located area. Later it will also be available on the android application.

3 Methodologies:

3.1 Collecting data

Collecting data from the users and the existing system and analyzing the data.

3.2 Design

Design is the process of defining elements of a system like modules, architecture, components and their interfaces and data for a system based on the specified requirements. For designing, various types of graphical modeling languages will be used which will exactly represent every module and their relation. To represent the exact model of the system various modeling will be used. Such as:

1. UML(unified modeling diagram)
2. Use-Case diagram

3. Activity Diagram
4. Data Flow Diagram
5. Sequence Diagram
6. ER Diagram

These diagrams will be used to model the system which will define all the dependencies and relationships between the modules.

3.3 Implementation

The system must have interactive and user-friendly design. As anyone who is in need and looking for a rental house can easily find their expected houses from this platform. Advertisements will be categorized according to the following tags: Area/Location, Number of rooms (Bed, Dining, Bathrooms, etc, Range of rents, Facilities (Generator, Parking, Security Guard, etc). Every single room of the house will be displayed through images in this system. So users will be very clear about the rooms, kitchen, bathrooms, and premises of the house. The contact number of every house owner will be given with the house advertisements. Users will be able to choose a house according to their choice using their devices as every information regarding the house will be available in the system. After that, they will contact the house owner. All the financial issues and other necessary staffs will be discussed between the house owner and the customer. It will be a web-based platform created using HTML, CSS, Javascript, React js in the frontend, Django in the backend, and Mysql in the database. It will be user-friendly and easily accessible by the users.

3.4 Testing

System testing can be done using 4 different testing . They are unit testing, integration testing, system testing and acceptance testing.

3.4.1 Unit testing:

Unit testing is a type of testing where a particular unit or function is tested. Unit testing can be done in two ways.

Manual testing: In manual testing a particular test case can be generated by a developer to check a unit.

Automated testing: Unit testing basically depends on automated testing. Functions are isolated by developers to check it more rigorously. Different unit testing frameworks are used to generate terminal test cases and check unit testing.

3.4.2 Integration testing:

Integration testing is a type of testing where software modules are integrated logically and tested as a group. Its main aim is to check data flow between the modules of the system. It outlooks every module combinely as a group. Integration testing is executed in two ways.

Big Bang Approach: Big Bang approach is an integration testing approach in which all the components and modules are integrated together at once and tested as a unit. This combined set of modules are considered as an entity in integration testing.

Increment Approach: Increment testing is done by integrating two or more modules which are logically related to each other and then tested for proper functioning of the application. Then other related modules are integrated incrementally until all the logically related modules are integrated and tested successfully.

3.4.3 System Testing:

System testing is defined as testing of a complete and fully integrated software product. This testing falls in black-box testing wherein knowledge of the inner design of the code is not a pre-requisite and is done by the testing team.

3.4.4 Acceptance Testing:

Acceptance testing is a testing technique performed to determine whether or not the software system has met the requirement specifications. The main purpose of this test is to evaluate the system's compliance with the business requirements and verify if it has met the required criteria for delivery to end users.

3.5 Maintenance

The current system must be maintained through modification and further developments.

4 Specific Outcome:

1. To provide clients an interface where they can search houses according to their taste, capability and area.
2. To reduce physical labour of the renter.
3. To reduce the economical losses of the house owner for advertisement purpose.
4. To save money and time for both renter and house owner.
5. To give advantage to the special type of client like the bachelor, students etc.

5 Conclusion:

This system will work as a middleware between the owner and the customer. Our platform tends to reduce the waste of users' time and money, as well as owners, and they will be benefited as the system will faster the renting process.