

Construction Ease

Document: System Requirement Specification Document.

Title: CONSTRUCTION EASE.

Objective:

- This website is mainly designed for those people who are searching contractors for building their homes.
- This platform simplifies the entire construction process, offering a turnkey solution that saves time, money, and effort for property owners.

Scope:

- By sitting at home, by one click user will be able to select a contractor, select a plan for building, estimate a cost and make a deal of it.
- When actual construction will start user will be able to track the completion of work on site on daily basis.

Overview:

- Anyone can use the portal and can see the details of different contractors, their work, and their plans of constructing homes but in order to contact any contractor, a user needs to log in using their unique email and password. By visiting the registration page, unregistered members can do so. Roles can only be switched by admin. The default role is "User" when a user registers with the website.
- New contractors can join the site and can create profile on the site. After logged in he/she can edit and update their profile and their work.

Functional Requirement:

- This system will be accessible for the owner, registered customers, and registered contractors.
- The admin having all the authority to use this site functionality like registering customers, contractors, verifying contractor's details, managing reviews.
- The users will be accessible for viewing their personal data.
- Contractors will be accessible to edit, update their data and work.

Various functional modules that can be implemented by the system will be –

Admin:

Database management: control the database and keep track of all records of users and

contractor's details.

View all details: view the details of all users and contractors and control the whole system.

Contractor:

Registration: As a new customer can create profile by filling all personal details.

Login: Only registered customers can log into the system. Contractor must have a valid login email id and password to enter into the site.

Managing Profile: As a customer of this site contractor has to update his/her profile on daily basis. Contractor has to add his recent project details, details of completed project, and details of projects which are currently in work. Contractor has to add his building plans as per square feet with appropriate costing.

Respond to Users Request: contractor has to respond to the user's request.

Regulating work: Keep track of work done on construction site and regulate the labors on site.

Regulating Payments: Keep track of all the payment transactions made by the users and update the information of payment.

User:

Registration: New users can sign up by creating email id and password.

Login: Only registered customers can log into the system. Users must have a valid login email id and password to enter into the site.

View and edit Own Details: Can view/edit his personal details.

Choosing Appropriate Contractor: Can choose a contractor for constructing home by comparing different profiles of contractors. By comparing works done by contractors, the speed of work, the cost of construction per square feet, different plans of construction from basics to premium user can choose a contractor.

Purchasing: Can choose a construction plan by negotiating amounts of products and can purchase and can make payment online.

Regulating work: Keep track of work done on construction site.

Giving Feedback to Customer Care: Can give feedback to the 24X7 Care Service

Logout: User must logout.

Visitors:

Visiting the Site: Can only visit the site without registration.

Customer Care:

Getting Feedback from the Users: Responsible for receiving complaints, queries and feedback from the customers.

Providing Solutions to User: Provide feasible solutions to the customers on their complaints and queries.

Non-functional Requirement:

➤ **Performance:**

- The server must be able to support an unlimited number of users i.e., it must place no restrictions on the number of gadgets that can be used simultaneously.
- A limitless amount of active client payments must be supported by the server, and payments must never be lost.

➤ **End to End Solutions:**

- This eliminates the need for property owners to deal with multiple contractors, architects, and suppliers, reducing the hassle and ensuring a seamless construction experience.

➤ **Transparency:**

- Clients can track the progress of their projects, monitor expenses, and receive regular updates, ensuring complete peace of mind.

➤ **Cost-Efficiency:**

- By selecting materials by choice and by negotiating cost of products this results in cost savings, making construction more affordable for clients.

➤ **Security:**

- Registered users will be allowed to select plan of construction.
- Sensitive data will always be transmitted with encryption. The system will internally maintain a secure communication channel between servers (web servers, application servers, database servers).

➤ **Reliability:**

- The system should be scalable, with the ability to accommodate a large number of users at once.
- The site's response time should be as quick as feasible, and it should be able to load balance the server.

➤ **Availability:**

- This application is available for 24 hrs. anywhere anytime.

➤ **Portability:**

- System will provide portable User Interface (HTML, CSS, JS, bootstrap) through users will be able to access online construction website.
- System can be deployed to single server, multi-server, to any OS, Cloud (Azure or AWS or GCP)

➤ **Accessibility:**

- After authentication, only logged-in users will be able to select an appropriate contractor, appropriate plan of construction.

➤ **Efficiency:**

- System will be able to manage all transactions with isolation.

➤ **Scalability:**

- Online construction portal will be secure from malicious attack.
- Online construction portal functionalities are protected from outside with proper configuration.
- Online construction portal will be always kept updated with latest antivirus software.
- Business data will be backed up periodically to ensure safety of data using incremental back up strategy.
- Role based security will be applied for Application data and operations accessibility.

➤ **Benefits:**

- The user will save saves time because he is not going to the search a contractor anywhere.
- User can buy a construction plan of his/her choice.
- User and contractors also can access the site from anywhere.