Software Requirement Specification(SRS)

1 Introduction:

1.1 Purpose of this Document:
The purpose of the House Construction App is to provide users with a tool to estimate the cost of their construction projects and to display default packages and current projects.

1.2 Scope of this document
– The app will allow users to input various parameters, including built-up area, total area, car parkings, number of floors, and project timelines, and use machine learning algorithms to provide cost estimations. Additionally, the app will display default packages and details of current projects.

1.3 Overview
– The House Construction App is an application designed to provide users with information regarding house construction projects. It is a user-friendly interface that will allow users to input various parameters regarding their construction projects, including built-up area, total area, car parkings, number of floors, and project timelines. The app will use machine learning algorithms to provide cost estimations for the projects. Additionally, the app will provide default packages and details of current projects for the user's reference.

2 General description:
The House Construction App is a web application designed to provide users with a tool to estimate the cost of their construction projects. The app allows users to input various parameters such as built-up area, total area, car parkings, and number of floors, and uses machine learning algorithms to provide cost estimations. The app also displays default packages and details of current projects for the user's reference. The user interface is designed to be simple and user-friendly, with a clean and modern design that is easy to navigate. The app is designed to be scalable, secure, and able to handle high traffic and user loads without any system crashes or downtime.

3 Functional Requirements:

- Query Input: The app should allow users to input queries regarding their construction projects.
- Default Packages: The app should display default packages for the user's reference.
- Current Projects: The app should display details of current projects for the user's reference.
- Project Timeline: The app should display the project timeline if any ongoing project is going on.

- Input Form: The app should allow users to input their built-up area, total area, car parkings, and number of floors in a form.
- Cost Estimation: The app should use machine learning algorithms to provide cost estimations based on the user's input.

4 Interface Requirements:

- The user interface should be designed to be simple and user-friendly.
- The app should have a clean and modern design that is easy to navigate.
- All the input fields and buttons should be labeled and easy to understand.
- The app should be responsive and adjust to different screen sizes and resolutions.
- The app should have clear instructions and error messages to guide the user through the process.

5 Performance Requirements:

- The app should be able to handle multiple user inputs simultaneously without any delay or lag.
- The app should provide cost estimation results within a reasonable amount of time, depending on the complexity of the project.
- The app should be scalable to accommodate an increasing number of users and projects.
- The app should be able to handle high traffic and user loads without any system crashes or downtime.
- The app should ensure data privacy and security by implementing encryption and other security measures to protect user data.

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6 Design Constraints:

- The app must be compatible with a variety of devices and web browsers.
- The app must be able to handle different types of construction projects, ranging from small to large-scale projects.
- The app must use machine learning algorithms to provide accurate cost estimations based on the user's input.
- The app must ensure data privacy and security by implementing encryption and other security measures to protect user data.
- The app must be able to handle high traffic and user loads without any system crashes or downtime.
- The app must comply with all applicable laws and regulations related to construction and data privacy.

7 Non-Functional Attributes:

- Reliability: The app should be reliable and able to provide accurate cost estimates consistently.
- Scalability: The app should be scalable to accommodate an increasing number of users and projects.
- Performance: The app should provide cost estimation results within a reasonable amount of time, depending on the complexity of the project.
- Usability: The app should have a simple and user-friendly interface that is easy to navigate.
- Security: The app should ensure data privacy and security by implementing encryption and other security measures to protect user data.
- Compatibility: The app should be compatible with a variety of devices and web browsers.
- Maintainability: The app should be easy to maintain and update.
- Availability: The app should be available to users 24/7 without any system crashes or downtime.
- Accuracy: The app should provide accurate cost estimations based on the user's input.
- Portability: The app should be easily portable to different platforms and environments.

8 Preliminary Schedule and Budget:

Preliminary Schedule:

1. Project Planning: 1 week
2. User Interface Design: 2 weeks
3. Database Design and Setup: 2 weeks
4. Backend Development: 8 weeks
5. Machine Learning Integration: 4 weeks
6. Frontend Development: 8 weeks
7. Testing and Quality Assurance: 2 weeks
8. Deployment and Launch: 1 week

Total Estimated Development Time: 28 weeks

Preliminary Budget:

1. Project Planning: $5,000
2. User Interface Design: $10,000
3. Database Design and Setup: $10,000
4. Backend Development: $60,000
5. Machine Learning Integration: $30,000
6. Frontend Development: $80,000
7. Testing and Quality Assurance: $10,000
8. Deployment and Launch: $5,000

Total Estimated Development Cost: $210,000