

Requirement Gathering

Project: Constructa

Date: 09-12-2025

Constructa is a web-based platform designed to help prospective homeowners plan, design, and manage the early stages of house construction.

Main Objectives

- To provide users with **smart house design suggestions** based on their requirements.
- To connect users with **engineers, architects, and contractors**.

The system is intended as a **prototype**.

- It includes major features like:
 - Requirement input form
 - Plan suggestion
 - Material recommendation
 - Budget calculator
 - Engineer directory

Target owners are

- **Prospective homeowners** planning to build a new house.
- **Civil engineers, architects, and construction consultants**.

1. Requirement Input Module

- User enters number of rooms, floors, style preference, location, plot size, etc.

2. Plan Suggestion Module

- System plan ideas based on requirements.

3. Budget Estimation Module

- Calculates approximate house construction cost.
- Suggests best material options based on budget.

4. Engineer & Contractor Directory Module

- Lists engineers with contact details, experience, and availability.

5. Component Shopping Module

- Provides links or shops for buying materials (cement, bricks, tiles, etc.)

6. User Account Module

- For login/signup for **Admin, User, Engineer**.

7. Feedback & Report Module

- Users can download plans, reports, and give feedback.

5. User Roles

1. Admin

- Manages users, engineers, plans, materials, and system data.

2. Engineer

- Can upload plans, provide advice, update availability.

- Can view client requirements.

3. User (Homeowner)

- Enters house requirements
 - Views plan suggestions
 - Calculates budget
 - Reviews engineer details
 - Downloads reports
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6. System Ownership

Owned by who that develops and commercially operates the platform. The system contains **architectural plans, floor layouts, and design images**, which makes ownership critical for **intellectual property protection** and **content security**.

7. Industry / Domain

- **Civil Engineering**
- **Architecture & Construction**

8. Data Collection Contacts

1. **Mr. Anoop**
Role: Civil Engineer
Contact: +91 6238211371

9. Questionnaire for Data Collection

1. What is the typical cost per square foot for residential construction in your area?

The typical cost per square foot for residential construction ranges from **₹1,500 to ₹2,000 for basic construction, ₹2,000 to ₹2,800 for medium-range construction, and ₹3,000 to ₹4,500 or more for premium-quality construction.**

2. What are the most commonly used materials for walls, flooring, and roofing today?

The most commonly used materials for construction are **red bricks, concrete blocks, or AAC blocks for walls, vitrified or ceramic tiles for flooring, and RCC slabs or metal sheets for roofing.**

3. How do clients usually communicate their house requirements to you?

Clients usually communicate their house requirements through **direct discussions, WhatsApp messages, simple sketches, and on-site explanations during visits.**

4. What problems do homeowners face during the planning phase?

Homeowners often face problems such as **unclear budgeting, miscommunication with engineers, and difficulty visualizing the final layout,** which leads to errors during construction.

5. How important is a digital planning tool for first-time home builders?

A digital planning tool is very important for first-time home builders because it provides **clear visualization, improves communication with engineers, and reduces planning and cost-related mistakes.**

6. What features should an ideal house design system include?

An ideal house design system should include **a requirement input form, automated plan suggestions, a detailed budget estimator, 2D/3D visual tools, and a directory of engineers or contractors.**

7. What mistakes do people make while budgeting for house construction?

People often make mistakes such as **ignoring hidden costs, selecting materials that exceed their budget, and failing to account for price fluctuations in construction materials.**

8. How do you select materials based on a client's budget?

Materials are selected based on the client's budget by choosing **basic materials for low budgets, mid-range materials for moderate budgets, and premium materials like marble and designer fittings for higher budgets.**

9. What type of plans do clients prefer?

Clients typically prefer **modern open-floor plans, Vastu-compliant layouts, and cost-optimized designs** that fit their plot size and financial capacity.

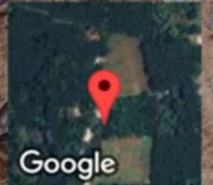
10. What information about engineers should be displayed to users?

Information displayed about engineers should include their **name, qualification, experience, specialization, project portfolio, ratings, and contact details** for consultation.

10. Geotagged Photos



GPS Map Camera



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