



INTERNATIONAL ISLAMIC UNIVERSITY CHITTAGONG

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Problem Definition Document



Real Estate Platform

“Your Gateway to Smarter Property Deals”

Course Title : Software Engineering Lab

Course Code ; CSE-3638

Submitted by

- Nahian Subah Ishma_C223286
- Rehnuma Tasneem_C223288
- Saima Kawsar_C223297

Semester : 6th

Section : 6CF

Submitted to

Sultana Tasnim Jahan
Assistant Lecturer
Dept. of CSE , IIUC

Table of Contents

01.Title	2
02.Introduction.....	2
03.Problem Statement.....	2
04.Project Objectives.....	3
05.Preliminary Solutions	4
06.Project Scope	5
07.Estimated Cost and Time for Feasibility Study.....	5

01.Title

Real Estate Platform.

02.Introduction

The real estate industry has witnessed a significant transformation with the rise of digital platforms that facilitate property buying, selling, and renting. This project focuses on developing a comprehensive **Real Estate Platform** aimed at simplifying the real estate transaction process. The platform will provide a seamless experience for property owners, buyers, renters, and real estate agents.

The goal of the project is to create an efficient, transparent, and user-friendly platform where users can easily navigate property listings, schedule viewings, and perform transactions. The platform will include advanced features such as property filters, payment gateways, secure user logins, and more, making it a one-stop solution for real estate needs.

03.Problem Statement

The real estate industry faces several challenges that hinder the seamless transaction between property buyers, sellers and renters.



Some of the major problems include:

- **Inefficient Property Search:** Most existing real estate platforms have limited and non-intuitive search features, making it difficult for users to filter properties according to their needs.
- **Lack of Transparency:** Property listings often lack detailed information, leading to mistrust and confusion among users.
- **Fragmented Service Offering:** Many platforms provide a single service (e.g., property listings) without offering the full suite of services, such as renting, buying, and selling, in one place.

04.Project Objectives

1. Develop a User-Friendly Platform:

Create a responsive, web-based platform that provides an intuitive user experience, accessible from both desktops and mobile devices.

2. Comprehensive Property Listings:

Provide a database of properties available for sale, rent, or lease, with detailed descriptions, pricing, images, and video tours.

3. Advanced Search and Filters:

Implement a powerful search engine that allows users to filter properties based on location, price, type of property, size, and amenities.

4. Secure Transaction System:

Integrate a secure payment gateway for transactions such as property booking, deposits, or down payments.

5. User Profiles and Customization:

Allow users to create accounts and save their preferences, track listings, and manage transactions.

6. Agent/Property Manager Dashboards:

Provide real estate agents and property managers with their own dashboard to manage listings, communicate with clients, and track property sales/rentals.

05.Preliminary Solutions

Here are the alternative preliminary solutions, presenting three distinct approaches for developing a real estate platform.

Solution 1: Custom In-House Solution

- **Description:** A platform built entirely by your team with full control
- **Development Cost:** High
- **Customization:** Full customization possible
- **Scalability:** Highly scalable
- **Security:** Fully controlled security measures
- **Maintenance:** Needs an in-house team for support

Solution 2: Third-Party Platform Solution

- **Description:** Ready-made platform from a third-party provider
- **Development Cost:** Low
- **Customization:** Limited customization options
- **Scalability:** May have limits depending on the platform
- **Security:** Managed by the vendor
- **Maintenance:** Vendor-managed support

Solution 3: Hybrid Solution (Outsourced Development)

- **Description:** A partially customized solution where a third-party vendor develops the platform, but some features are managed in-house.
- **Development Cost:** Medium
- **Customization:** Moderate customization possible
- **Scalability:** Vendor-dependent scalability
- **Security:** Shared between the vendor and your team
- **Maintenance:** Combination of vendor and in-house support

06.Project Scope

Aspect	Solution 1: Custom In-House	Solution 2: Third-Party Platform	Solution 3: Hybrid (Outsourced Development)
Functions	<ul style="list-style-type: none"> - Property Listings (add, update, remove) - Advanced Search (filter by price, location, etc.) - Transaction Management (secure bookings) - User Management (profile creation) - Agent Dashboard (manage listings, clients) 	<ul style="list-style-type: none"> - Property Listings (pre-built templates) - Standard Search (basic filters) - Payment Integration (subscription-based) - User Authentication (vendor login system) - Customer Support (limited vendor support) 	<ul style="list-style-type: none"> - Property Listings (vendor-provided system) - Custom Search & Filters (in-house development) - Hybrid Payment System (vendor and custom payment) - User Profile Customization (partial flexibility) - API Integrations (custom third-party services)
Features	<ul style="list-style-type: none"> - Full control over functionalities - AI-driven property recommendations - Automated financial tracking and reporting - Integrated maintenance request system - Cloud storage for property images/videos 	<ul style="list-style-type: none"> - Fast setup and low cost - No need for dedicated hosting or servers - Automated system updates and security patches - Security managed by the vendor 	<ul style="list-style-type: none"> - Balance between cost and control - Semi-customizable with vendor and in-house collaboration - Shared security responsibilities - Flexible to add/remove features based on needs
Facilities	<ul style="list-style-type: none"> - In-house technical support team - Private servers for enhanced security - Scalable infrastructure for future growth 	<ul style="list-style-type: none"> - Cloud-hosted infrastructure - Third-party customer support - Subscription-based service model 	<ul style="list-style-type: none"> - Shared hosting and infrastructure - Mix of vendor and in-house support - Partial control over data management and privacy

07.Estimated Cost and Time for Feasibility Study

Estimated Cost

Cost Item	Solution 1 (BDT)	Solution 2 (BDT)	Solution 3 (BDT)
Initial Development Cost	1,950,000	800,000	1,325,000
Annual Maintenance Cost	550,000	550,000	500,000

Estimated Time

Time Item	Solution 1	Solution 2	Solution 3
Development Duration (months)	8-12	2-4	4-8

