

For the first document, you should focus on **Requirement Analysis** and **Project Overview**. Here's what to include for the initial submission:

## 1. Title Page

- Project Title: RealHome: A Real Estate Listing Platform
- Your name and student details (if applicable)
- Date
- Institution: CTU Training Solutions (PTY) Ltd
- Course Title (if applicable)

## 2. Table of Contents

- List the sections for easy navigation.

## 3. Project Overview

- **Introduction:** Briefly explain the purpose of the platform. For example, "RealHome is an online platform where real estate agents and homeowners can list properties for sale or rent. It allows users to search for properties, view detailed information, and contact the listing agent or owner."
- **Objectives:**
  - Develop a user-friendly interface for listing and searching properties.
  - Implement a robust database to store property details.
  - Ensure the website is responsive on multiple devices.
  - Integrate secure user authentication.
- **Target Audience:** Explain that the platform is designed for real estate agents, homeowners, and buyers/renters.
- **Core Features:** Briefly list the key features you aim to implement (e.g., property listings, search functionality, interactive map, etc.).

## 4. Requirement Analysis

This section outlines the technical and functional requirements for the project.

### 4.1 Functional Requirements

These are the features that the system must offer. Break them down into:

- **User Registration and Login:** Users can create accounts, log in securely, and reset passwords.
- **Property Listings:** Real estate agents or homeowners can add, edit, or remove property listings.
- **Search and Filter:** Users can search properties by criteria such as location, price range, and property type.
- **Property Details Page:** Each property will have a page displaying its details, photos, and contact info.

- **Interactive Map:** A map showing the locations of listed properties using Google Maps API.
- **Favorites and Wishlist:** Users can save their favorite properties.
- **Contact Form:** Users can contact agents or homeowners via an in-built messaging system.

## 4.2 Non-Functional Requirements

These are the system's qualities:

- **Security:** User authentication, protection against SQL injection, data encryption.
- **Performance:** The website should load quickly, even with multiple property listings.
- **Scalability:** The system should be able to handle an increasing number of users and property listings.
- **Responsiveness:** The website must be accessible and user-friendly on all devices (desktop, mobile, tablets).
- **Usability:** The platform should have a clean and intuitive interface for ease of navigation.

## 4.3 Technical Requirements

These are the technical aspects of your project.

- **Frontend:** HTML, CSS, JavaScript, React.js (or Angular/Vue.js).
- **Backend:** Node.js with Express.js, Python with Django/Flask, or PHP.
- **Database:** MySQL, PostgreSQL, or MongoDB.
- **APIs:** Google Maps API for property locations, Email API for notifications.
- **Hosting:** AWS, Heroku, or 000webhost.
- **Version Control:** Git for version control and GitHub for collaboration.

## 5. Project Phases (Summary)

Provide a high-level outline of the phases the project will go through:

- **Requirement Analysis:** Define project scope and requirements (current phase).
- **Design:** UI/UX design of the website, including wireframes.
- **Development:** Coding the front-end and back-end.
- **Testing:** Identify and fix bugs.
- **Deployment:** Launch the site on a cloud server.
- **Maintenance:** Ongoing updates and improvements.

## 6. Conclusion

- Summarize the project's goal and the significance of having a detailed requirement analysis in place.