Software Requirements Specification for Real Estate Web Application

1. Introduction
This Software Requirement Specification (SRS) document outlines the requirements for a Real Estate Web Application.
The goal of this web application is to provide a platform where users can search and rent houses from various locations in India.
The application will be built using React framework for the frontend and Express and Mongoose for the backend.
The application will also utilize various third-party libraries and tools as listed in the dependencies.

2. User Requirements
      2.1 Functional Requirements:
      The application will have the following functional requirements:

           a) User Registration: Users will be able to register on the platform by providing their personal details such as name, email, phone number, and password.

           b) User Login: Users will be able to log in to the application using their registered email and password.

           c) House Search: Users will be able to search for houses based on location, price range, number of rooms, and amenities.

           d) House Details: Users will be able to view the details of the house including pictures, location, price, and amenities.

           e) Rent Payment: Users will be able to pay for the rent of the house using online payment options.

           f) User Profile: Users will be able to view and edit their profile details such as name, email, phone number, and password.

      2.2 Non-functional Requirements:
      The application will have the following non-functional requirements:

           a) Security: The application will utilize secure protocols for user authentication, data encryption, and secure payment processing.

           b) Performance: The application will be optimized for fast loading and smooth performance.

           c) Scalability: The application will be designed to handle a large number of users and rental requests.

           d) Reliability: The application will be reliable with minimal downtime.

3. User Interface Requirements
      The user interface of the application will be developed using React framework along with various third-party libraries including "@mui/icons-material", "@pankod/refine-mui", and "react-apexcharts".

The interface will be designed to be user-friendly, responsive, and visually appealing.

4. System Architecture
The Real Estate Web Application will have a client-server architecture.
The frontend will be developed using React framework, while the backend will be developed using Express and Mongoose.
The data will be stored in a cloud-based MongoDB database. The server will communicate with the client using RESTful API.

5. Data Management
The Real Estate Web Application will utilize MongoDB database for data storage and management.
The application will use Mongoose ORM for accessing the database.

6. Testing Requirements
The Real Estate Web Application will be tested using Jest and React Testing Library for frontend testing, and Mocha and Chai for backend testing.
The application will also be tested for security vulnerabilities and performance issues.

7. Dependencies
The Real Estate Web Application will utilize various third-party libraries and tools as listed in the dependencies, including "@pankod/refine-cli", "cloudinary", "cors", "dotenv", "express", "mongoose", and "nodemon".
The frontend will use "@mui/icons-material", "@pankod/refine-mui", "react-apexcharts", "react-spinners", and "web-vitals".
The development dependencies will include "@types/react", "@types/react-dom", and "typescript".

8. Conclusion
This Software Requirement Specification (SRS) document outlines the requirements for a Real Estate Web Application.
The application will be developed using React framework for the frontend and Express and Mongoose for the backend.
The application will utilize various third-party libraries and tools as listed in the dependencies.