|  |  |  |  |
| --- | --- | --- | --- |
| **Goals:**  List of developer packages(KISAN-MART) | Crafting a Seamless Experience: Building a User-Friendly and Interactive Web Platform Tailored for UK Real Estate Enthusiasts | | |
| **Measures of Effectiveness:** | Task Completion Time:  Measure the time it takes for users to complete common tasks within the application, such as uploading documents or accessing property information.  Utilize analytics tools or custom logging to track task completion times.  Click Count:  Monitor the number of clicks required for users to accomplish specific tasks.  Aim to minimize the number of clicks needed for essential actions.  Usability Testing:  Conduct usability testing with real estate users to gather direct feedback on the application's ease of use.  Use scenarios that reflect common tasks in the real estate workflow.  User Satisfaction Surveys:  Periodically survey users to gauge their satisfaction with the application's usability.  Implement a simple and concise survey with questions related to the user interface, navigation, and overall experience. | | |
| Objectives | Workflow Planned to Meet Objectives | Packages Used | Versions & cost |
| User Authentication  ,Clear Navigation,Consistent Layout,Visual Hierarchy | We use a straightforward navigation structure with easily understandable labels  Maintain a consistent layout throughout the application for a cohesive user experience, Prioritize information based on importance, guiding users through logical flow | Backend: Node.js, Express.js, MongoDB (with AWS)  Frontend: React, Redux, Bootstrap 5,CSS3  Security: Bcrypt, JSON Web Token (JWT), OAuth,Passport.js for users authenticating using Google, facebook ,Apple. | Node.js  Latest version name: Node.js 21.2.0  Release date: October 4, 2023  React.js  Latest version name: React 18.2.0  Release date: October 24, 2023 |
| Simple Registration: Implement a hassle-free registration process with minimal required information.  Intuitive Property  Search: Create an easy-to-use search functionality with filters for location, price range, and property type.  Interactive Maps: Include interactive maps to help users visualize property locations and nearby amenities. | (Property Registration)  Frontend (React):  react-hook-form: A performant and lightweight library for handling form validation and submission.  Backend (Node.js):  express-validator: A powerful middleware for validating and sanitizing user input, ensuring data integrity.  (search)  Frontend (React):  react-select: A versatile component library for creating searchable dropdowns and multi-select fields.  react-range-slider: A user-friendly component for implementing price range filtering.  Backend (Node.js):  mongoose-search: A full-text search extension for Mongoose, enabling efficient search queries on property data.  (MAPS):  Frontend (React):  react-map-gl: A performant and customizable React library for integrating maps with Mapbox GL JS.  Or  Google Map integration.  Backend (Node.js):  node-geocoder: A Node.js library for converting addresses into geographic coordinates, enabling map markers. |  | JWTfeature_bcryptOauthpassportfacebookgooglelogogeocodingnode-google-maps-api-stream |
| Mobile Responsiveness: | We ensure the application is mobile-friendly to accommodate users accessing it on various devices.  Prioritize a responsive design that adapts to different screen sizes. | React.js ,CSS3, Bootstrap /ReactNative. | Mapbox |
| User Profile Management: | Frontend (React):  react-chartjs: A library for creating interactive charts and graphs, allowing you to visualize user data.  react-data-grid: A library for displaying and managing tabular data, such as saved properties and recent searches.  react-recommendation-engine: A library for building recommendation systems, allowing you to suggest relevant properties based on user preferences and behavior.  (Backend-Node.js):  express-session: A middleware for managing user sessions, enabling you to store and retrieve personalized data for each user.  mongoose-user-plugin: A plugin for Mongoose, providing additional methods for managing user data, such as saved properties and recent searches. | reactChatreact-data-grid-2mongoose | Frontend (React):  react-chartjs: Latest version: 4.4.3, Release date: June 5, 2023  react-data-grid: Latest version: 13.1.0, Release date: August 16, 2023  react-recommendation-engine: Latest version: 1.0.2, Release date: October 4, 2023  Backend (Node.js):  express-session: Latest version: 2.0.0, Release date: October 26, 2023  mongoose-user-plugin: Latest version: 1.4.0, Release date: June 16, 2023 |
| User Engagement Features:  Saved Searches: Allow users to save their property searches for easy access and notifications of new listings.  Favourites: Enable users to save their favorite properties for quick reference. | Frontend (React.js):  react-local-storage-hook: A simple and lightweight hook for managing data persistence in local storage, ideal for storing saved searches and favorites.  react-context-api: A built-in React API for providing global state management, allowing you to share saved searches and favorites across components.  react-redux: A popular state management library for React, offering a more structured approach to managing user data, including saved searches and favorites.  Backend (Node.js):  mongoose: A popular object-relational mapper (ORM) for Node.js, enabling you to store user data, including saved searches and favorites, in a database.  express-session: A middleware for managing user sessions, allowing you to associate saved searches and favorites with specific users.  socket.io: A real-time communication library for Node.js, enabling you to send real-time notifications to users when new listings matching their saved searches are found.  Example Implementation:  Saved Searches:  Frontend: Use react-local-storage-hook or react-context-api to store saved searches in local storage or a global state management context.  Backend: Implement a database schema using mongoose to store saved searches for each user.  Favorites:  Frontend: Use react-local-storage-hook or react-context-api to store favorited properties in local storage or a global state management context.  Backend: Implement a database schema using mongoose to store favorited properties for each user. | localstoragehookReactRedux |  |
| Communication Tools:  Implement messaging or inquiry forms for users to communicate with property agents or sellers directly. | Frontend (React.js):  react-chat-widget: A customizable chat widget with built-in message history, user avatars, and media support.  react-quill: A rich text editor library for composing detailed inquiries and formatting messages.  react-hook-form: A form management library with validation and error handling for collecting user information.  react-bootstrap-contact-form: A simple contact form component based on Bootstrap styles for quick integration.  react-modal: A modal component library for displaying inquiry forms or chat windows within your application.  Backend (Node.js):  socket.io: A real-time communication library for establishing and managing two-way communication between users and agents.  express-validator: A middleware for validating user input on messages and inquiry forms, ensuring data integrity.  nodemailer: A library for sending email notifications for new messages or inquiries to respective agents or sellers.  mongoose: A popular ORM for persisting messages and inquiry data in a structured format for easy access.  express-session: A middleware for managing user sessions and associating messages and inquiries with specific users.  Additional Tools for Enhancing User Experience:  These packages offer a combination of user interface components, communication libraries, and data management tools for building effective messaging and inquiry systems for agents and sellers. | quilljsLogoexpressvalidatorNodemailerReactReduxsocket |  |
| Clear Calls-to-Action (CTAs):  Use clear and compelling CTAs for important actions like contacting an agent, scheduling a viewing, or making an inquiry. | React.js:  react-bootstrap-button: A React component library for creating Bootstrap-style buttons, providing a consistent and visually appealing design for CTAs.  react-call-to-action: A dedicated React component library for building attention-grabbing CTAs, offering a variety of customization options.  react-reveal: A React animation library that can be used to add subtle animations to CTAs, making them more prominent and engaging.  Node.js:  express-messages: A middleware for managing flash messages in Express applications, allowing you to display temporary messages after performing actions like submitting a contact form or scheduling a viewing.  nodemailer: A Node.js library for sending emails, enabling you to trigger automated email notifications upon receiving inquiries or scheduling viewings.  socket.io: A real-time communication library for Node.js, providing a mechanism for real-time updates and confirmations related to CTAs like scheduling viewings or making inquiries. | ReactBootstrapnodemessages |  |
|  | Frontend (React.js):  react-feedback-form: A lightweight and easy-to-use library for creating customizable feedback forms, allowing users to provide feedback on their experience.  react-rating: A component library for creating interactive rating systems, enabling users to rate their satisfaction with specific aspects of the application.  react-survey-form: A comprehensive library for building structured survey forms, allowing you to gather detailed feedback from users.  Backend (Node.js):  express-body-parser: A middleware for parsing and processing incoming form data, enabling you to collect and store user feedback submissions.  mongoose: An object-relational mapper (ORM) for Node.js, providing a structured approach for storing feedback data in a database.  nodemailer: A Node.js library for sending emails, allowing you to send automated notifications to notify relevant stakeholders about new feedback submissions. |  |  |
| User Feedback Mechanism:  Include a simple feedback mechanism to gather user opinions and suggestions for improvement. | Frontend (React.js):  react-feedback-form: A lightweight and easy-to-use library for creating customizable feedback forms, allowing users to provide feedback on their experience.  react-rating: A component library for creating interactive rating systems, enabling users to rate their satisfaction with specific aspects of the application.  react-survey-form: A comprehensive library for building structured survey forms, allowing you to gather detailed feedback from users.  Backend (Node.js):  express-body-parser: A middleware for parsing and processing incoming form data, enabling you to collect and store user feedback submissions.  mongoose: An object-relational mapper (ORM) for Node.js, providing a structured approach for storing feedback data in a database.  nodemailer: A Node.js library for sending emails, allowing you to send automated notifications to notify relevant stakeholders about new feedback submissions. |  |  |
| . Security Measures:  Prioritize the security of user data, especially considering the sensitive nature of real estate transactions. | React.js:  react-router-dom: A routing library for React that enables you to create dynamic and SEO-friendly navigation between pages.  react-redux: A state management library for React that provides a structured approach to managing application state and data flow.  react-bootstrap: A library for creating Bootstrap-style components in React, offering a consistent and visually appealing design for UI elements.  react-map-gl: A library for integrating interactive maps into React applications, allowing you to display property locations and provide map-based search functionality.  react-image-gallery: A library for creating interactive image galleries, enabling users to view property images in a visually appealing and user-friendly manner.  Node.js:  express: A web application framework for Node.js that provides a structured approach to building web APIs and back-end services.  mongoose: An object-relational mapper (ORM) for Node.js that simplifies data access and manipulation for MongoDB databases.  multer: A middleware for handling file uploads in Node.js applications, allowing you to manage user-uploaded property images or documents.  nodemailer: A library for sending emails from Node.js applications, enabling you to send automated notifications, confirmations, or marketing messages.  socket.io: A real-time communication library for Node.js that enables you to establish real-time connections between users and property agents for chat or messaging functionality. | React.js:  react-cookie-consent: Latest version: 4.0.0, Release date: October 24, 2023  react-gdpr-consent: Latest version: 2.1.0, Release date: September 18, 2023  react-privacy-policy: Latest version: 1.2.1, Release date: October 15, 2023  Node.js:  express-cookie-parser: Latest version: 2.0.5, Release date: October 4, 2023  express-anonymizer: Latest version: 1.1.2, Release date: November 1, 2023  express-session-anonymizer: Latest version: 1.0.1, Release date: September 22, 2023 |  |
| Help and Support:  Provide easily accessible help resources, FAQs, and customer support options. | React.js:  react-bootstrap: A library for creating Bootstrap-style components in React, offering a consistent and visually appealing design for UI elements.  react-map-gl: A library for integrating interactive maps into React applications, allowing you to display property locations and provide map-based search functionality.  react-image-gallery: A library for creating interactive image galleries, enabling users to view property images in a visually appealing and user-friendly manner.  react-chartjs: A library for creating interactive charts and graphs, allowing you to visualize property data and trends.  react-data-grid: A library for displaying and managing tabular data, such as saved properties or recent searches.  Node.js:  multer: A middleware for handling file uploads in Node.js applications, allowing you to manage user-uploaded property images or documents.  Data Management and Persistence:  React.js:  react-redux: A state management library for React that provides a structured approach to managing application state and data flow.  react-context-api: A built-in React API for providing global state management, allowing you to share data across components.  Node.js:  mongoose: An object-relational mapper (ORM) for Node.js that simplifies data access and manipulation for MongoDB databases.  express-session: A middleware for managing user sessions, enabling you to associate data with specific users.  Communication and User Engagement:  React.js:  react-chat-widget: A lightweight and customizable React component for creating chat widgets, allowing users to interact with property agents in real-time.  react-conversational-form: A powerful and flexible library for building conversational forms, enabling users to submit inquiries and receive responses in a structured manner.  react-messenger-chat: A React component for integrating with popular messaging platforms like Facebook Messenger, enabling seamless communication with property agents.  Node.js:  socket.io: A real-time communication library for Node.js, enabling you to establish real-time connections between users and property agents for chat or messaging functionality.  nodemailer: A library for sending emails from Node.js applications, enabling you to send automated notifications, confirmations, or marketing messages.  Security and Compliance:  React.js:  react-helmet: A library for managing meta tags and security headers in React applications, ensuring compliance with security best practices.  Node.js:  helmet: A middleware for adding security headers to Express applications, such as Content Security Policy (CSP) and Expect-CT.  express-validator: A middleware for validating and sanitizing user inputs, preventing malicious code injection or unauthorized data modifications. | React-Rating-reactsharesurveyreact-helmet-react-seo-plugin |  |
| 13. Legal Compliance:  Ensure compliance with UK data protection and privacy regulations. | React.js:  react-cookie-consent: A library for managing cookie consent in React applications, ensuring that users have proper notice and control over cookies used for tracking or personalization.  react-gdpr-consent: A library for implementing the General Data Protection Regulation (GDPR) consent requirements in React applications, providing clear consent mechanisms for data collection and processing.  react-privacy-policy: A library for creating and displaying privacy policy information in React applications, ensuring transparency about data handling practices.  Node.js:  express-cookie-parser: A middleware for parsing and managing cookies in Express applications, enabling consent-based cookie usage and tracking.  express-anonymizer: A middleware for anonymizing sensitive data in Express applications, such as IP addresses or personally identifiable information (PII), to enhance privacy protection.  express-session-anonymizer: A middleware for anonymizing session data in Express applications, ensuring that session data is not stored in a personally identifiable manner. | File-Upload-Using-Multer-in-Nodemulterreactcookiereact-gdpr-cookie-banner |  |
| 14. Social Media Integration:  Integrate social media sharing options to allow users to easily share properties with their network. | react-share: This library provides a comprehensive set of social media sharing buttons for various platforms like Facebook, Twitter, LinkedIn.  social-share-button: This library provides an Express middleware for generating social media sharing buttons based on the current page's URL and Open Graph meta tags.  open-graph-scraper: This library helps you extract Open Graph meta tags from a given URL, which are essential for optimizing social media sharing and improving search engine visibility. | social-share-button:  Latest version: 1.2.0  Release date: October 19, 2023  open-graph-scraper:  Latest version: 6.1.1  Release date: October 24, 2023 | reactshare |