Requirement Gathering and Analysis Phase
Technology Stack (Architecture & Stack)

Date	29-June-24
Team ID	SWTID1720075141
Project Name	House Hunt
Maximum Marks	4 Marks

Technical Architecture:

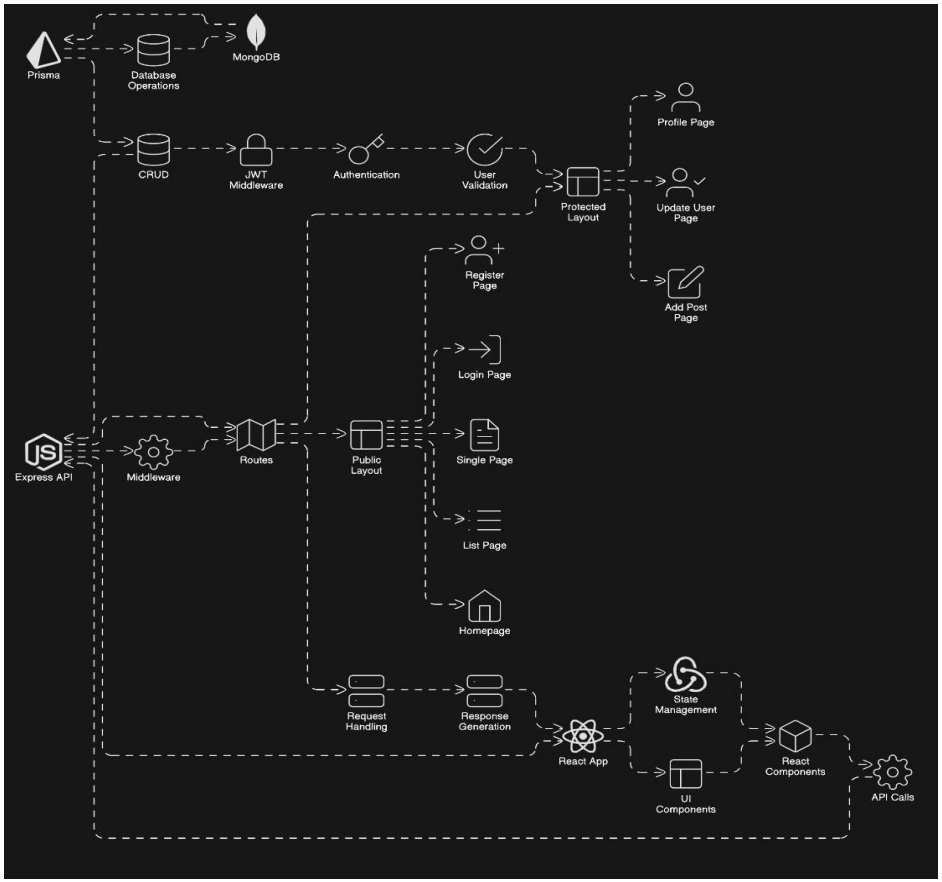

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web application for users to search for houses, register, login, and manage saved houses	HTML, SCSS, JavaScript / React.js
2.	API Gateway	Single entry point for API requests from the UI, routes requests to appropriate backend services.	Cloud-based API Gateway service
3.	Search Service	Backend service that processes user search queries and retrieves relevant house listings from the database.	Node.js with MongoDB
4.	Listing Service	Backend service that manages house posting functionalities (create, edit, delete listings). Optionally interacts with cloud storage for image uploads.	Node.js with MongoDB
5.	User Service	Backend service that handles user registration, login, and profile management.	Node.js with MongoDB
6.	Geolocation Service	Service that retrieves user location data (if user consent is granted) to personalize search results.	Google Maps Platform
7.	Database	Stores all application data (user information, house listings, saved houses).	MongoDB
8.	Messaging Service	Backend service that facilitates real-time messaging between users and landlords.	Node.js
9.	Cloud Storage	Stores uploaded house images for scalability and cost-effectiveness.	Cloudinary

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-source frameworks enable dynamic user interfaces, robust backend support, scalable data storage, type-safe database interactions, and interactive maps for property locations.	Prisma, Express.js, React.js
2.	Security Implementations	Safeguard user data and control access to various features like house listings and user profiles.	bcrypt ,JSON web tokens(JWT), Middleware-Token Verification, Role Based Access
3.	Scalable Architecture	Allows the application to adapt to a growing user base and data volume, ensuring smooth operation even with high traffic.	MongoDB, RESTful API, Node.js
4.	Availability	Minimizes downtime and guarantees continuous access to house hunt features for users.	Multiple Node.js instances
5.	Performance	Delivers fast response times for house searches, listing details, and other functionalities, resulting in a smooth user experience.	Prisma ORM, MongoDB, Node.js, Express