Members: Poon, May, Beam, Win   **Date: 14th September 2025**

Overall architecture diagram
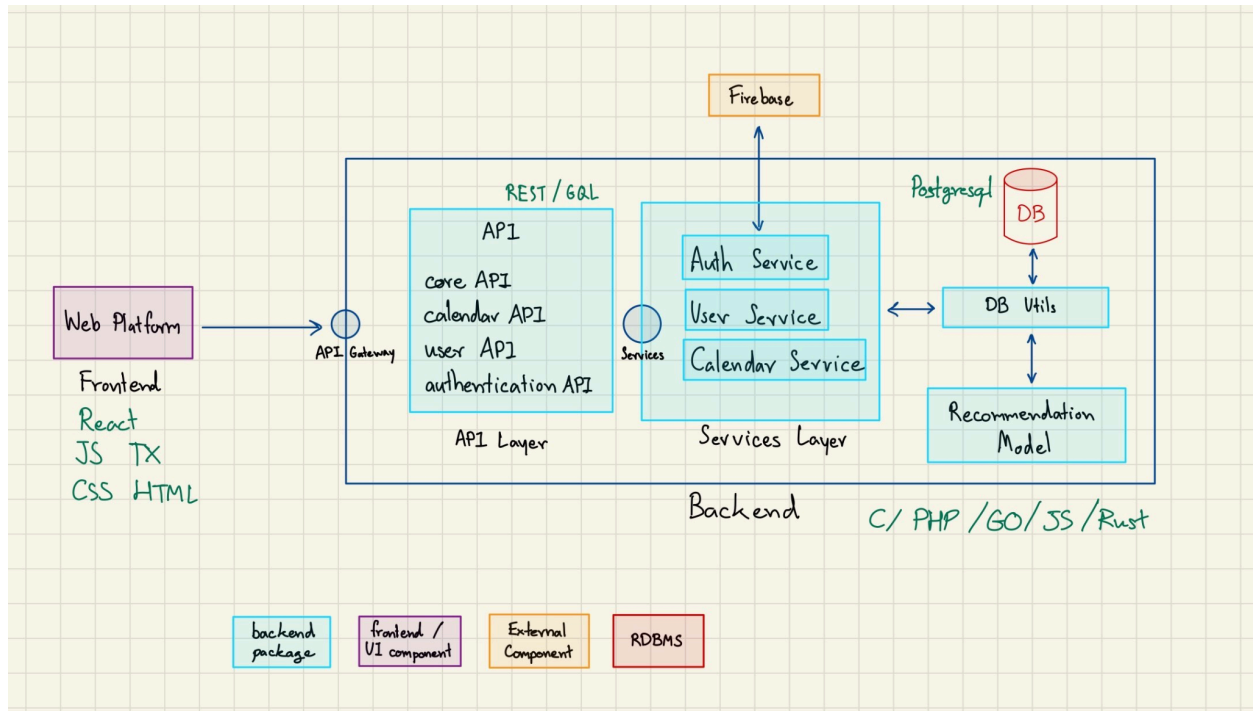
Note: Green text are lists of tools, frameworks and programming languages we are considering to use in each component (Frontend, Backend, API and Database).

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Component Table

Component	Responsibilities	Interacts with
Web Platform	Display the room schedule and other user interfaces to the user.	API gateway
API Gateway / Layer	Enable communication between the web platform and the services layer.	Web Platform, Services Layer
Services Layer	Does user authentication, provide the authentication services (user authentication), user-related services (adding, editing, deleting, and exporting schedules), calendar services (displaying the schedule).	Recommendation Model, Database Utilities, Firebase Authentication
Database Utilities	Provide an interface for the services layer to be able to interact with the database.	Database, Services Layer, Recommendation Model
Recommendation Model	Give users a recommendation based on user entries (Size of group, timeslot etc.)	Services Layer, Database Utilities
Database	Store user data and reservation data	Database Utility
Firebase (External tool)	Provide user authentication services for the services layer.	Services Layer