Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	28-11-2025
name	m.sriram
Project Name	Flight Booking System
Maximum Marks	4 Marks

Technical Architecture:

The **Flight Booking System** is designed using a scalable **3-tier architecture** that separates the presentation layer (user interface), the backend business logic (flight search, booking, payment), and the data storage layer.
The architecture ensures secure transactions, fast flight search performance, and easy integration with third-party services (e.g., payment gateways, airline APIs).

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	Web-based interface for passengers and admins to search flights, book tickets, and manage bookings.	HTML, CSS, JavaScript / React.js
2	Application Logic – 1	Core user functions such as flight search, selection, passenger details, and booking workflow.	Node.js, Express.js
3	Application Logic – 2	Admin panel, flight management, schedule updates, pricing updates.	React.js, Node.js
4	Database	Stores passengers, flights, bookings, transactions, and admin data.	MongoDB / MySQL

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Frontend frameworks for fast and responsive UI.	React.js, Tailwind CSS, Bootstrap
2	Scalable Architecture	3-tier architecture with RESTful APIs supporting high-volume flight searches.	MVC

References:

[React.js Documentation]

[Node js Best Practice]

[JSON Web Server Reference]

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d