

Requirement Analysis Technology Stack (Architecture & Stack)

Date	13 April 2025
Team ID	SWITD1743680479
Project Name	SB Foods - Food Ordering App
Maximum Marks	4 marks

Technical Architecture:

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application	HTML, CSS, JavaScript, React.js
2.	Application Logic-1	Handles user authentication and session management	Node.js / Express.js
3.	Application Logic-2	Order management and cart processing	Node.js / Express.js
4.	Database	Stores user info, orders, menu	MongoDB
5.	Cloud Database	Cloud-based data storage	Amazon RDS
6.	File Storage	Storing food item images, menu PDFs	Local Filesystem
7.	External API-1	Address autocomplete & delivery estimates	Google Places API / Zomato API (for references)
8.	Infrastructure (Server / Cloud)	Application hosting and scaling	Local Server

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Technology used
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used

References:

<https://c4model.com/>

<https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/>

<https://www.ibm.com/cloud/architecture>

<https://aws.amazon.com/architecture>

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