Project Design Phase-II
Technology Stack (Architecture & Stack)
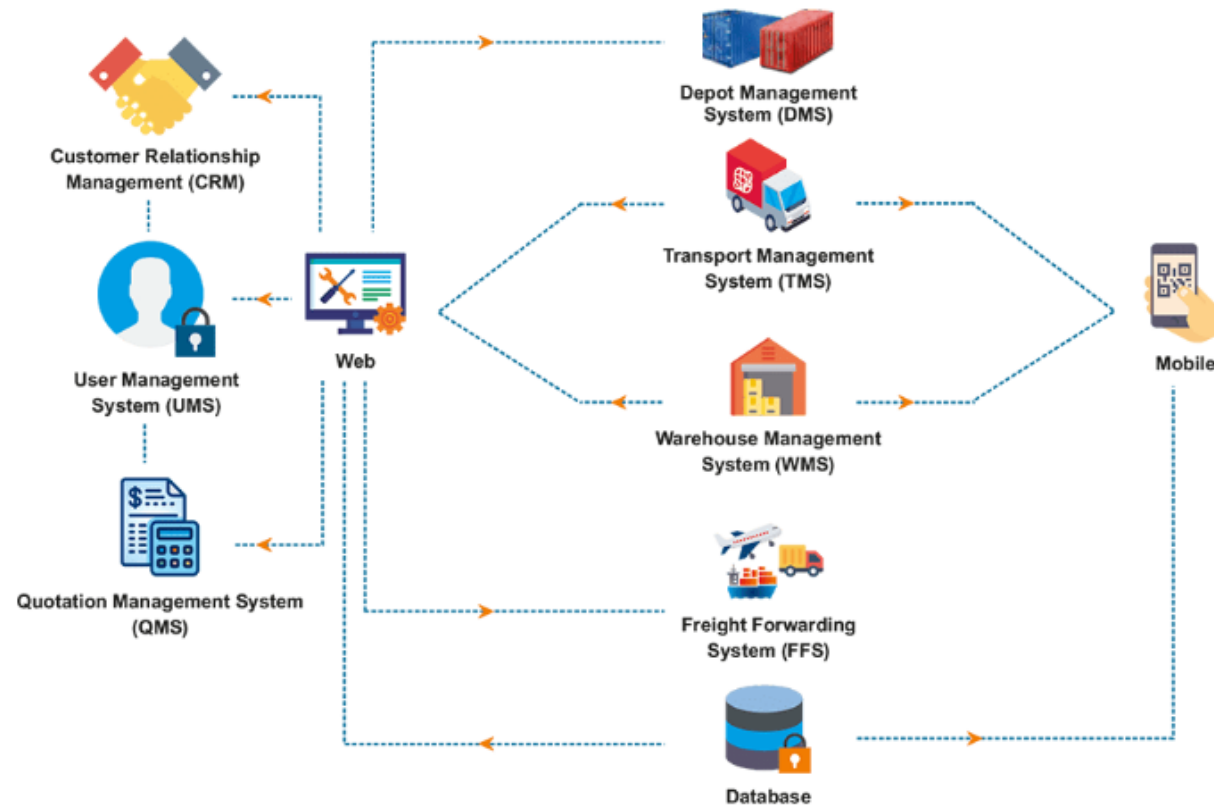
Date	03 October 2022
Team ID	PNT2022TMID36465
Project Name	Traffic and capacity analytics for major ports
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Example: Logistic Support For Freight Transportation

Reference https://www.angleritech.com/products/logistics-erp-software/

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	TMS logic includes live tracking, GPS tracking	Java / Python
3.	Application Logic-2	WHS logic is basic inventory management system	IBM Watson STT service
4.	Application Logic-3	UMS and CRS use tech assistants.	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	API used for user interactions	IBM Weather API, etc.
9.	External API-2	API used for workers and warehouse interactions	Aadhar API, etc.
10.	Machine Learning Model	Provides effective solutions for freight routes and customer relations	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: iOS/Mac, Android, Windows Cloud Server Configuration : IBM Cloud	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Payment Frameworks	RazorPay
2.	Security Implementations	Encryptions for user logs and payments made	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Three- Tier Architecture with API for User Interactions and Cloud Storage	MVC Architecture
4.	Availability	Logistic solutions offered at proper payment.	Apps

S.No	Characteristics	Description	Technology
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://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

https://www.angleritech.com/products/logistics-erp-software/