Project Design Phase-II Technology
Stack (Architecture & Stack)
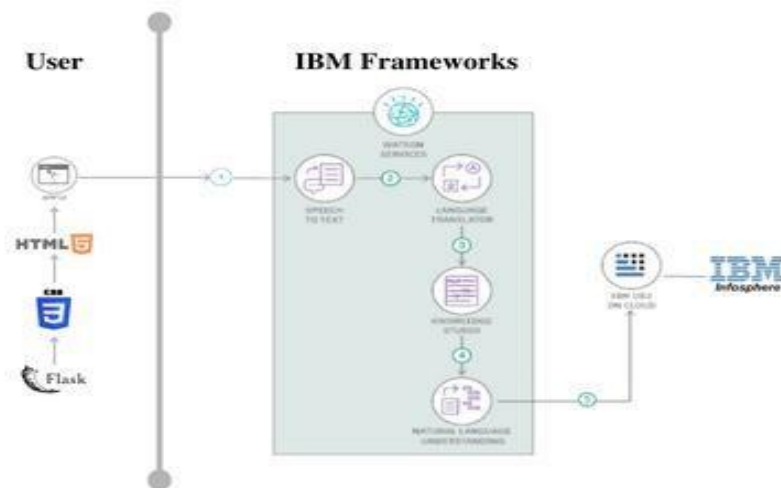
Date	14 October 2022
Team ID	PNT2022TMID47112
Project Name	Project - Personal Expense Tracker
Maximum Marks	4 Marks

Technical Architecture:

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

Example: Order processing during pandemics for offline mode

Reference: https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/

Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

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.	User Enrollment	User can register themselves using their email id or any social media accounts	Python
3.	Dashboards	User can view their expenses and investments in graphical view	HTML, CSS, JavaScript, Web UI Framework, Python, Flask
4.	Accounts	User can view and manage all their financial accounts for real-time tracking of expenses	Python, Flask and trusted bank databases for verification
5.	Notifications	Alerts and suggestions on expenses and earning/saving money techniques	InfoSphere® MDM Notification Framework
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	Bank accounts and user verification	Bank API
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	IBM Open-Source and other options available	Technology of Open-source 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	Data-driven vertical architecture	Technology related to scalability technique
4.	Availability	Maintaining the availability of application by using distributed servers and high performance IBM frameworks	Distributed server and IBM Frameworks
5.	Performance	Increasing the UI performance and customer satisfaction with latest technology and support	IBM Frameworks and Open-source support with trustable API

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