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

Date	20 October 2022
Team ID	PNT2022TMID43320
Project Name	Project – Personal Expense Tracker
Maximum Marks	4 Marks

Technical Architecture:

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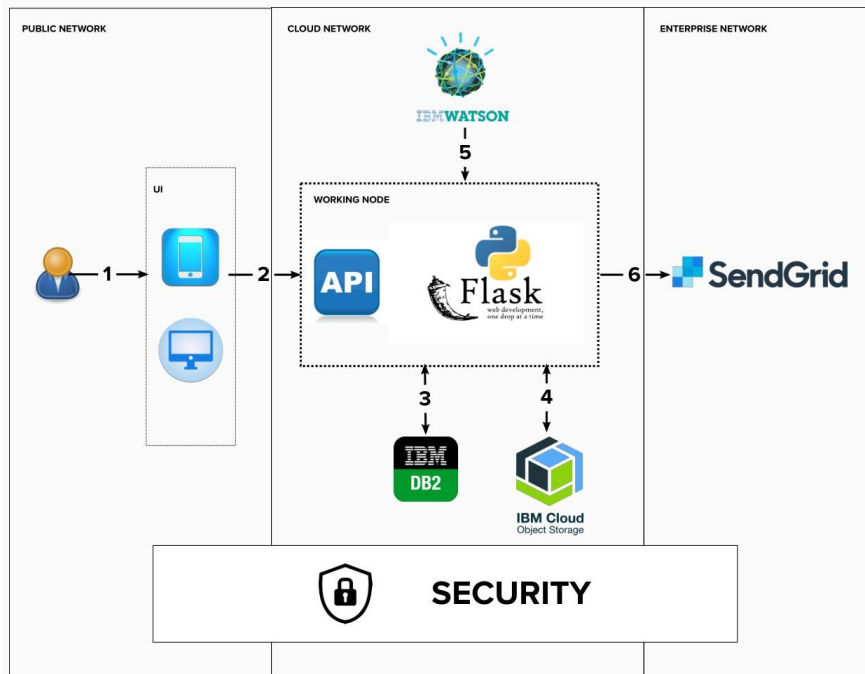
Guidelines:

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 UI, Chatbot etc.	HTML, CSS, JavaScript, Bootstrap
2.	API	Logic for a process in the application	Python, Flask
3.	Database	The structure of the database is created	SQLite
4.	Cloud Database	Connecting local database to cloud database	IBM DB2
5.	Storage	To store files and images	IBM Object Storage
6.	Chat Bot	Use instead of GUI	IBM Watson Assistant
7.	External API-1	It is used to send the user email	SendGrid
8.	Infrastructure (Server / Cloud)	Application Deployment on both Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

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