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

Date	03 October 2022
Team ID	PNT2022TMID35580
Project Name	Project - Personal Expense Tracker Application
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2
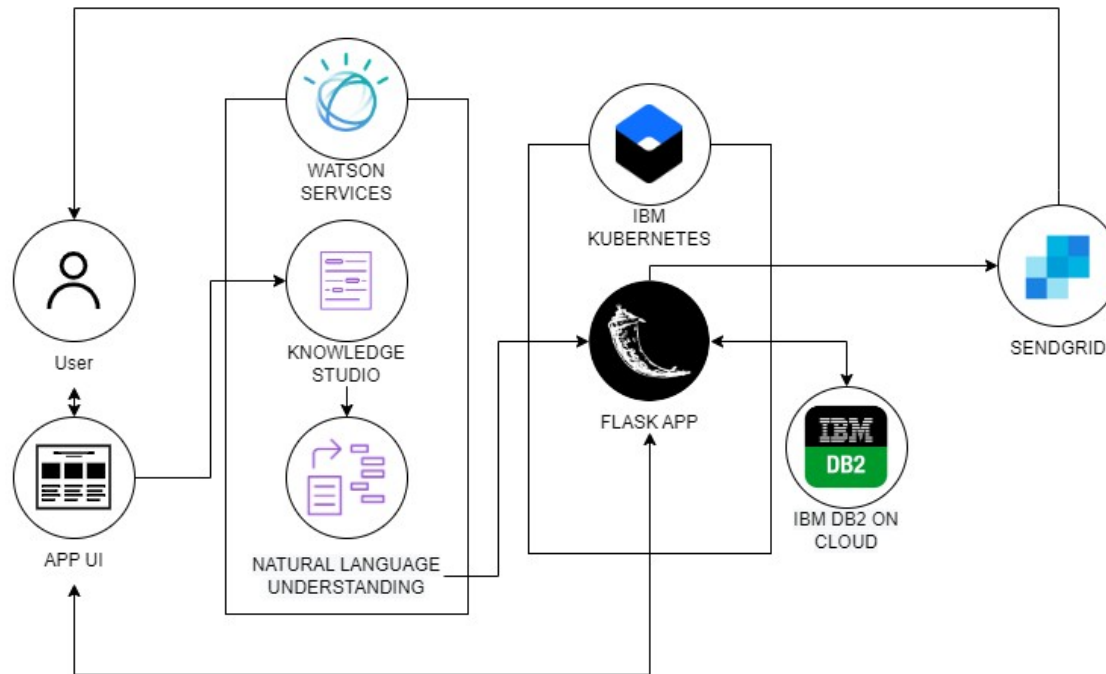
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface - 1	Web UI	HTML, CSS, JavaScript, Flask
2.	User Interface - 2	Chatbot	HTML, CSS, JavaScript, Flask, IBM Watson Assistant
3.	Application Logic - 1	Logic for managing income and expenses	Python
4.	Application Logic - 2	Logic for generating graphics based on expenditure data	Python and Javascript
5.	Cloud Database	Database Service on Cloud	IBM DB2
6.	External API-1	API used to send email alerts	SendGrid API
7.	Infrastructure (Server / Cloud)	Flask Application Deployment on Cloud	IBM Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Flask
2.	Security Implementations	Users can only query data related to their own account.	Identity and Access Management
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	3 Tier Architechure – Flask for Frontent, Python and DB2 for Database
4.	Availability	The database and server code are both hosted on cloud services with uptime guarentees.	IBM Kubernetes, IBM DB2
5.	Performance	Usage of geographically advantages locations while choosing servers for hosting	IBM DB2 and IBM Kubernetes