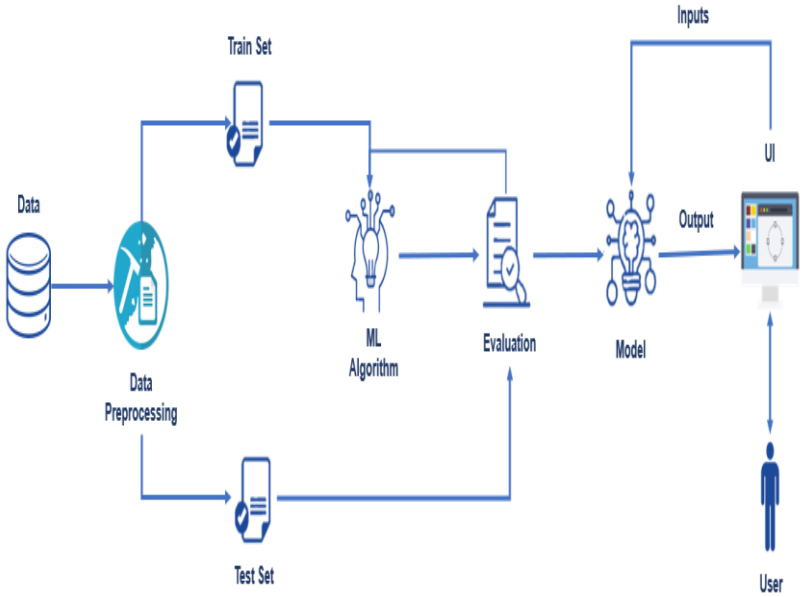
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	15 October 2022
Team ID	PNT2022TMID42499
Project Name	Project – Web Phishing Detection
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as 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	The user interacts with the application through the Web UI.	Flask application HTML pages
2.	Application Logic-1	The logic for the application is written using the Python language.	Python
3.	Application Logic-2	Machine learning models are used in order to predict the phishing and legitimate url.	Machine Learning
4.	Application Logic-3	To Deploy the model on the IBM cloud	IBM Watson Studiio
5.	Database	The data's are collected and stored in the csv file.	SQL
6.	Cloud Database	The IBM cloud object storage service is used to store the dataset on the cloud.	IBM Cloud Object Storage Service
7.	File Storage	The codings are written on the jupyter notebook and stored as the ipynb file.	Local File System
8.	External API-1	IBM Watson Studio is used to run the jupyter notebook	IBM Watson Studio
9.	External API-2	In order to train the model we make use of Machine Learning Service	Machine Learning Service
10.	Machine Learning Model	A machine learning model is a file that has been trained to recognize certain types of patterns.	Machine Learning Classification models
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration : IBM Cloud Service	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Jupyter notebook is web-based open source software for creating and sharing documents, containing live code.	Julie, Python, R
2.	Security Implementations	Data Encryption through TLS, Access Control, Data Validation, Remove Unnecessary informations, Throttling and Quotas	Encryptions, Access Controls
3.	Scalable Architecture	Micro-services Architecture is built as a suite of small services, each with its codebase.	Python

S.No	Characteristics	Description	Technology
4.	Availability	The Web-application should be accessible whenever somebody request it by accessing either in browser or on mobile application	IBM Cloud
5.	Performance	As the application is deployed on the IBM Cloud it can handle upto 1,00,000 requests per second	IBM Cloudant technology