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

Date	03 October 2022
Team ID	PNT2022TMID06282
Project Name	Web Phishing Detection
Maximum Marks	4 Marks

Technical Architecture:
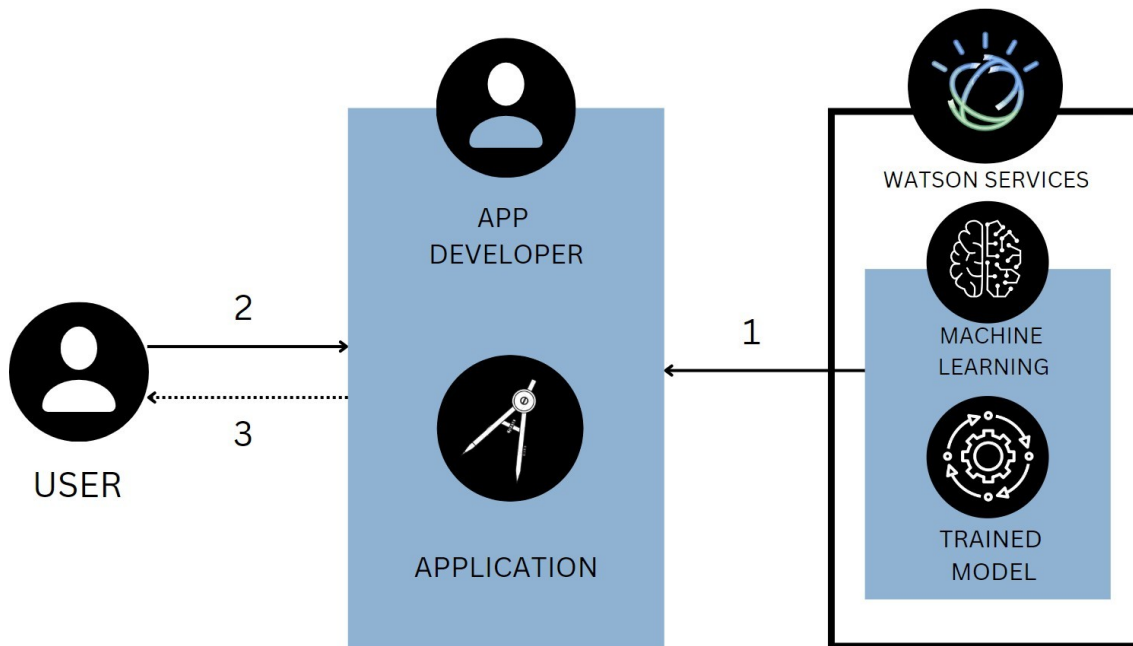
1. The application developer builds a Python-based app and deploys it.

2. The user enters the URL of a website in the application to check for its genuineness.

3. The user submits the URL through the web-based application and gets back the result.

4. The user makes a decision whether to proceed surfing in that website or move to another one.
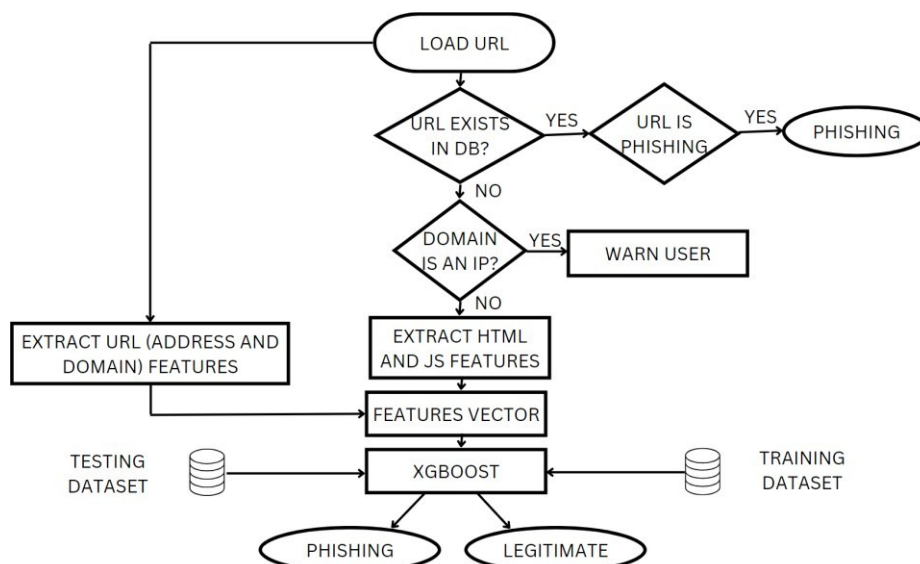
Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	A web application with information about phishing and a form field to get the URL from user to check genuineness.	HTML, CSS, JavaScript, Bootstrap
2.	Application Logic	Predict if the given URL is legitimate or not.	Flask API, Python
3.	Database	Store user input links in the database.	MySQL
4.	File Storage	Store training and testing datasets.	Local Filesystem
5.	Machine Learning Model	Classify legitimate and phishing URLs using XGBoost	Classification model
6.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	High-level open-source frameworks	Flask, Bootstrap
2.	Security Implementations	It is the security discipline that makes it possible for the right entities (people or things) to use the right resources (applications or data) when they need to, without interference, using the devices they want to use.	IAM Controls
3.	Scalable Architecture	Compose is a tool for defining and running multi-container Docker applications. With a single command, can create and start all the services from the configuration.	Docker, Docker Compose
4.	Availability	It can balance the load traffic among the servers to help improve uptime. Can scale applications by adding or removing servers, with minimal disruption to traffic flows.	IBM Cloud load balancers
5.	Performance	It provides performance feedback such as page size and how long it takes to load a page, and can show the impact new features have on the performance of the site.	IBM's SpeedCurve and Delivery Pipeline