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

Date	03 October 2022
Team ID	PNT2022TMID26146
Project Name	Project – Web Phishing Detection
Maximum Marks	4 Marks

Technical Architecture:

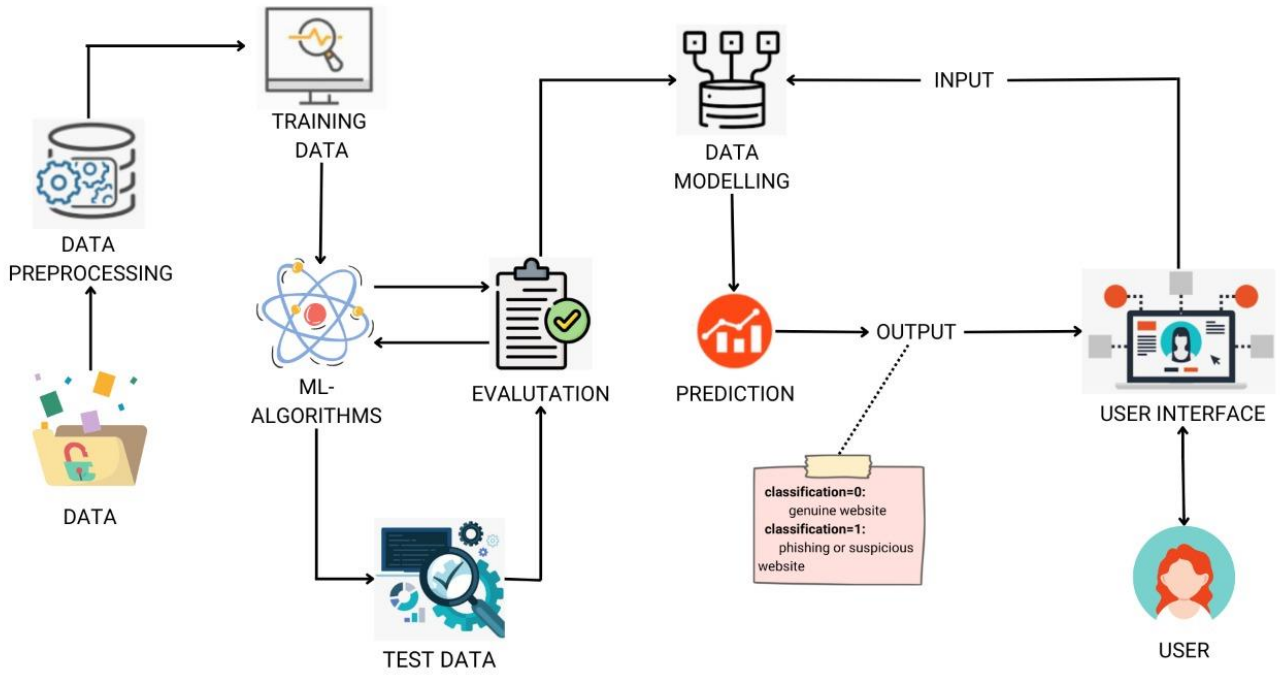

Table-1: Components & Technologies

S.No	Component	Description	Technology
1.	User Interface	The user interacts with application For example: Web UI	HTML, CSS, JavaScript
2.	Application Logic	Predict if the given URL is genuine or not.	Python, Flask API
3.	Database	Stores user input in a storage device called database.	MySQL
4.	Cloud Database	Database Service on Cloud	IBM DB2 or IBM Cloudant
5.	File Storage	Store training and testing datasets.	Local Filesystem
6.	Machine Learning Model	Classify genuine and phishing URLs.	Classification model
7.	Infrastructure (Server or Cloud)	Application Deployment on Local System or Cloud	Local, Cloud

Table-2: Application Characteristics

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-source frameworks used is deep learning.	PYTORCH
2.	Security Implementations	User opens email on the web browser. The email will be scanned by the backend phishing detection engine before it is opened.	Spoofing detection, fraud detection, filtering/blocking technology.
3.	Scalable Architecture	We propose to develop a self-management architecture that enables ISPs to protect their users against phishing attacks	Machine learning algorithm
4.	Availability	This service will be available on laptops, tablets and mobile devices.	Evaluation training dataset, Data pre-processing.
5.	Performance	The system should be fast and accurate to handle all possible errors in a manner that will prevent information loss and long downtime period. System should accommodate high number of photos, large data and users without any fault	Deep learning and cloud storage