

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

Date	20 October 2022
Team ID	PNT2022TMID43816
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

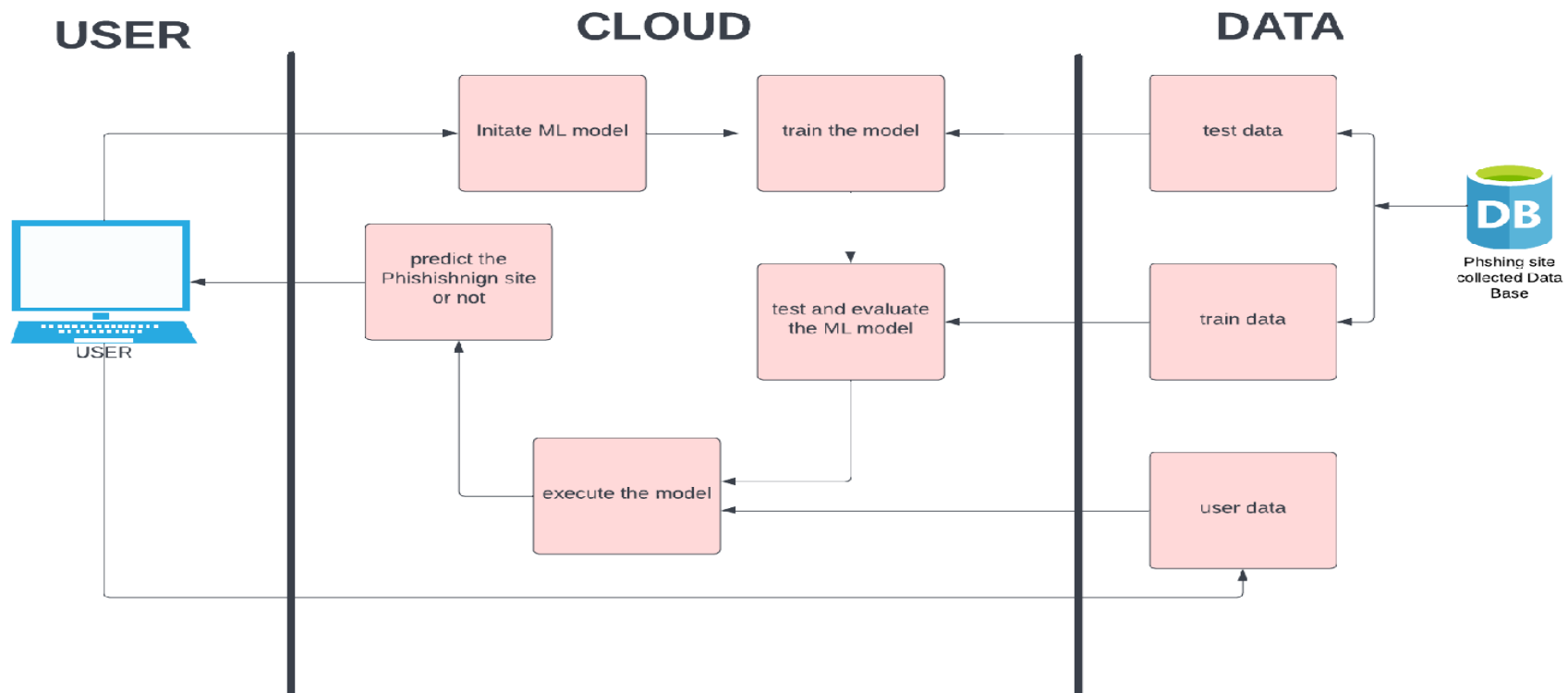


Table-1: Components & Technologies:

S.no	Component	Description	Technology
1.	User Interface	Web Application, Cloud UI	HTML, CSS, JavaScript / Angular JS / React JS, etc.
2.	Application Logic-1	Machine Learning Algorithms such as Random Forest, Decision Tree, Logistic Regression and SVM. Python Flask Application for Web App.	Python
3.	Application Logic-2	IBM Watson Speech to Text technology enables fast and accurate speech transcription in multiple languages for a variety of use cases, including but not limited to customer self-services, agent assistance and speech analytics.	IBM Watson STT service
4.	Application Logic-3	The IBM Watson Assistant service combines machine learning, natural language understanding, and an integrated dialog editor to create conversation flows between your apps and your users.	IBM Watson Assistant
5.	Database	Stored Procedure (EXEC)	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant, etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	Machine Learning Model	Classify legitimate and phishing URLs using XGBoost.	Classification model
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud.	Local, Cloud.

Table-2: Application Characteristics:

S.no	Characteristics	Description	Technology
1.	Open-Source Frameworks	Gophish is a powerful, open-source phishing framework that makes it easy to test your organization's exposure to phishing	Machine Learning
2.	Security Implementations	In our prototype we use encryption techniques and security algorithms on web application	AES 256, Cofense PDR
3.	Scalable Architecture	Scalability is high due to accuracy provided by the model and Responsive UI/UX	React Framework, jQuery, Bootstrap, Cloudfare.
4.	Availability	Available at NLP, Spam Detection, Blacklisting or Reporting, and machine learning techniques.	Acunetix, Intruder, Ghost Phisher.
5.	Performance	Deployed and Tested with multiple algorithms and this system gives greater accuracy and better performance than other.	Deep Learning.