

Project Design Phase - II

Technology Stack (Architecture & Stack)

Date	17 October 2022
Team ID	PNT2022TMID52337
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

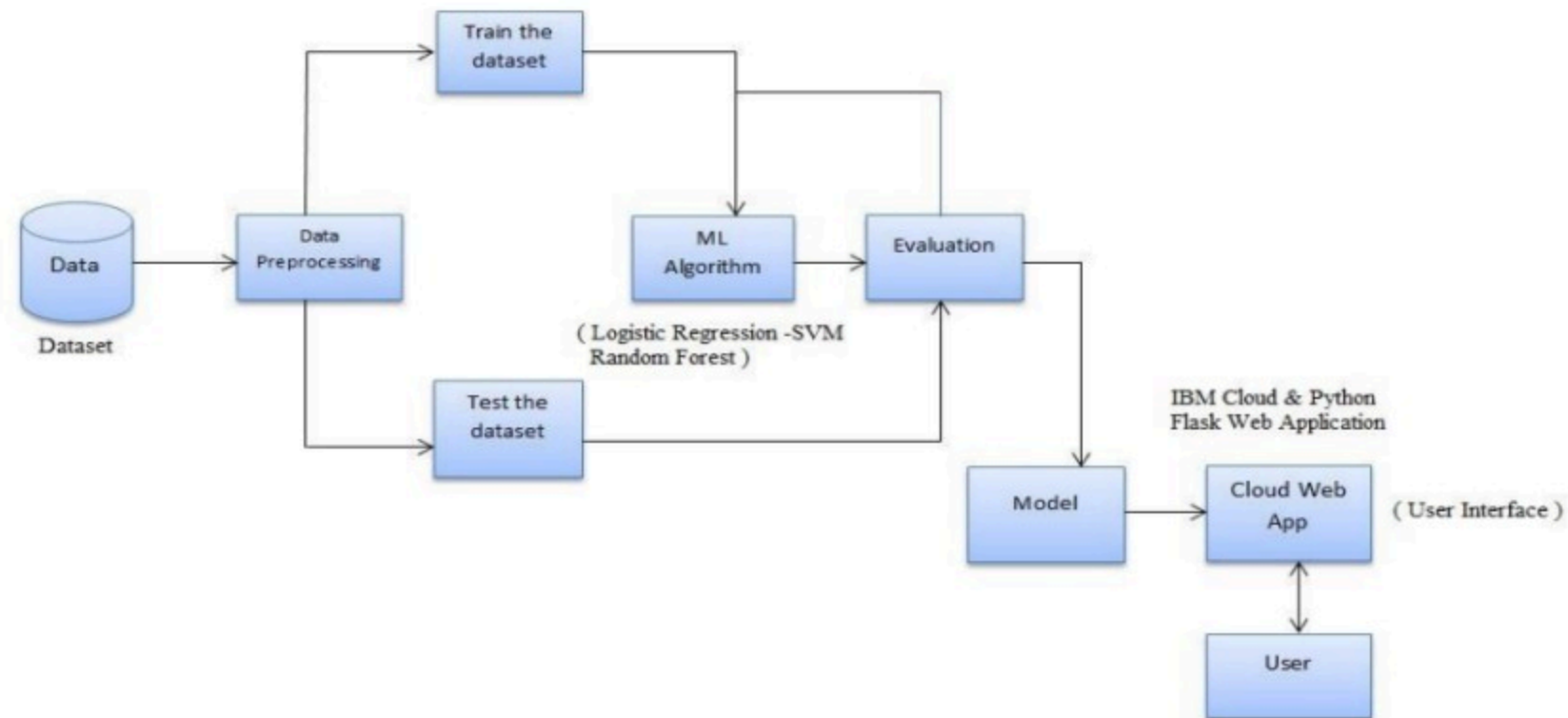


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic - 1	Logic for a process in the application	Flask login(Python)
3.	Application Logic-2	Machine Learning Algorithms such as Random forest, Decision Tree , Logistic Regression and SVM. Python Flask Application for Web App	Java / Python
4.	Application Logic-3	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 service, agent assistance and speech analytics.	IBM Watson STT service
	Application Logic - 4	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	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM Watson, IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	MongoDB
8.	Machine Learning Model	Purpose of Machine Learning Model	Logistic Regression, Decision Tree
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Render, IBM Cloud, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open - Source Frameworks	Sckit Learn package in Python that deals with ML algorithms.	Machine Learning.
2.	Security Implementations	In our prototype, we use encryption techniques and security algorithms on web application.	SHA-256, AES 256 etc..
3.	Scalable Architecture	Scalability is high due to accuracy provided by the model and Responsive UI/UX.	React Framework, jQuery, Bootstrap etc..
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.	Blacklists/whitelists, Natural language Processing, Machine learning techniques etc..