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

| Date          | 03 October 2022                  |
|---------------|----------------------------------|
| Team ID       | PNT2022TMID08575                 |
| 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 table 1 & table 2

**Example: Order processing during pandemics for offline mode** 

Reference: <a href="https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/">https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/</a>

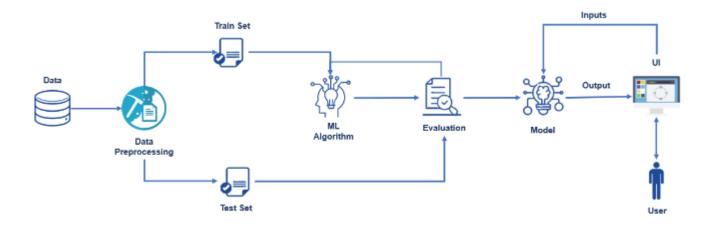


Table-1 : Components & Technologies:

| S.No | Component                       | Description   | Technology  |
|------|---------------------------------|---|---|
| 1.   | User Interface                  | Dynamic Web UI  | HTML, CSS, JavaScript   |
| 2.   | Application Logic-1             | User Registration/Login   | Gmail API   |
| 3.   | Application Logic-2             | Web app that predicts if the link is a phishing site or not                       | Flash API, Python   |
| 4.   | Application Logic-3             | Logic for a process in the application  | IBM Watson Assistant  |
| 5.   | Database                        | Stores user input URLs in the database  | MongoDB   |
| 6.   | Cloud Database                  | Database Service on Cloud   | IBM DB2   |
| 7.   | File Storage                    | Store the trained machine learning model  | Local Filesystem  |
| 8.   | Machine Learning Model          | Machine Learning Model is trained to detect the phishing link using ML algorithms | Logistic Regression Model   |
| 9.   | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud                                    | Local Server Configuration: Local Cloud Server Configuration: IBM Cloud |

**Table-2: Application Characteristics:** 

| S.No | Characteristics          | Description  | Technology                             |
|------|--------------------------|--|--|
| 1.   | Open-Source Frameworks   | Open-source phishing framework that makes it easy to test your organization's exposure to phishing.                    | Gophish, checkphish, phishtank, etc.,  |
| 2.   | Security Implementations | It is the security discipline that makes it possible for right entries to use the right resources without interference | OWASP, Encryption, Password Protection |
| 3.   | Scalable Architecture    | The accuracy and responsive UI   | Bootstrap, Cloudfare                   |
| 4.   | Availability             | Spam Detection, Blacklisting or Reporting  | Ghost Phisher                          |
| 5.   | Performance              | Deployed and tested with multiple algorithms and this system gives greater accuracy and better performance             | Natural Language Processing            |

## References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

https://www.ibm.com/cloud/architecture

## https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d