

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

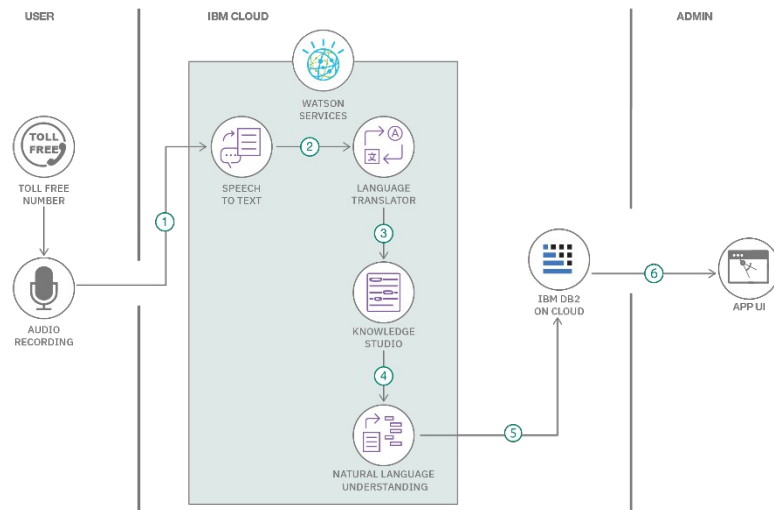
|               |                        |
|---------------|------------------------|
| Date          | 15 October 2022        |
| Team ID       | PNT2022TMID40190       |
| Project Name  | Web Phishing Detection |
| Maximum Marks | 4 Marks                |

### Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

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

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



### Guidelines:

Include all the processes (As an application logic / Technology Block)  
 Provide infrastructural demarcation (Local / Cloud)  
 Indicate external interfaces (third party API's etc.)  
 Indicate Data Storage components / services  
 Indicate interface to machine learning models (if applicable)

| S.No | Component | Description | Technology |
|------|-----------|-------------|------------|
|------|-----------|-------------|------------|

|     |                                 |                                                                                                                       |                                                                   |
|-----|---------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
|     |                                 |                                                                                                                       |                                                                   |
| 1.  | User Interface                  | How user interacts with application e.g.<br>Web UI, Mobile App, Chatbot etc.                                          | HTML, CSS, JavaScript / Angular Js /<br>React Js etc.             |
| 2.  | Application Logic-1             | Logic for a process in the application                                                                                | Java / Python                                                     |
| 3.  | Application Logic-2             | Logic for a process in the application                                                                                | IBM Watson STT service                                            |
| 4.  | Application Logic-3             | Logic for a process in the application                                                                                | IBM Watson Assistant                                              |
| 5.  | Database                        | Data Type, Configurations etc.                                                                                        | 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<br>Service or Local Filesystem |
| 8.  | External API-1                  | Purpose of External API used in the application                                                                       | IBM Weather API, etc.                                             |
| 9.  | External API-2                  | Purpose of External API used in the application                                                                       | Aadhar API, etc.                                                  |
| 10. | Machine Learning Model          | Purpose of Machine Learning Model                                                                                     | Object Recognition Model, etc.                                    |
| 11. | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud<br><br>Local Server Configuration:<br><br>Cloud Server Configuration : | Local, Cloud Foundry, Kubernetes, etc.                            |

**Table-2: Application Characteristics:**

| S.No | Characteristics        | Description                          | Technology                         |
|------|------------------------|--------------------------------------|------------------------------------|
| 1.   | Open-Source Frameworks | List the open-source frameworks used | Technology of Opensource framework |

| S.No | Characteristics          | Description                                                                                                               | Technology                                          |
|------|--------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 2.   | Security Implementations | List all the security / access controls implemented, use of firewalls etc.                                                | e.g. SHA-256, Encryptions, IAM Controls, OWASP etc. |
| 3.   | Scalable Architecture    | Justify the scalability of architecture (3 – tier, Micro-services)                                                        | Technology used                                     |
| 4.   | Availability             | Justify the availability of application (e.g. use of load balancers, distributed servers etc.)                            | Technology used                                     |
| 5.   | Performance              | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc. | Technology used                                     |

#### 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>