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

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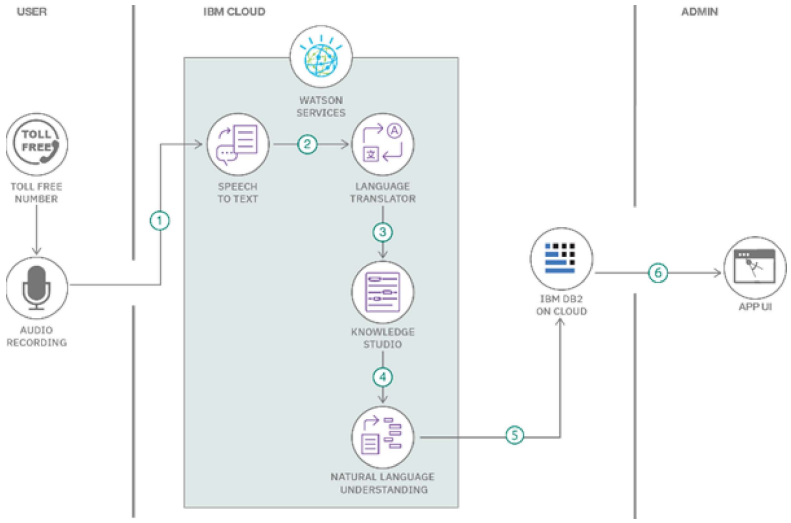
|---|---|
| **Date** | **30th October 2023** |
| **Team ID** | **TEAM 3.1** |
| **Project Name** | **Adversarial Attacks and Defenses** |

## Technical Architecture:




## 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 | 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. |

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|---|---|---|---|
| 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. | External API-1 | Purpose of External API used in the application | IBM Weather API, etc. |
| 9. | Internal API-2 | Purpose of Internal API used in the application | Framework to detect attack. |
| 10. | Machine Learning Model | Purpose of Machine Learning Model | Object Recognition Model |
| 11. | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud 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 |
| 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 |

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 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<br><br>Cache, use of CDN's) etc. | Technology used |

References:


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