

Project Design Phase-II

Technology Stack (Architecture & Stack)

Date 03 October 2022

Team ID PNT2022TMID592425

Project Name Project - ASL- Alphabet Image Recognition

Maximum Marks 4 Marks

Table-1: Components & Technologies

S.No	Component Description	Technology
1.	User Interface	Web UI, Mobile App
2.	Application Logic-1	Java / Python
3.	Application Logic-2	IBM Watson Speech to Text (STT) service
4.	Application Logic-3	IBM Watson Assistant
5.	Database	MySQL, NoSQL
6.	Cloud Database	IBM DB2, IBM Cloudant
7.	File Storage	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	IBM Weather API
9.	External API-2	Aadhar API
10.	Machine Learning Model	Object Recognition Model
11.	Infrastructure (Server / Cloud)	Application Deployment on Cloud

Table-2: Application Characteristics

S.No	Characteristics Description	Technology
1.	Open-Source Frameworks	HTML, CSS, JavaScript, Angular JS, React JS, Open-source ML frameworks
2.	Security Implementations	Data encryption, Access controls, TLS/SSL, IAM controls, OWASP standards, Firewalls
3.	Scalable Architecture	Scalable microservices architecture, Kubernetes
4.	Availability	Load balancers, Distributed servers, High availability configurations
5.	Performance	Caching mechanisms, Content Delivery Networks (CDNs), Load balancing, Optimization strategies for high request rates

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