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

Date	03 October 2022
Team ID	PNT2022TMID35768
Project Name	Project - University admit eligibility predictor
Maximum Marks	4 Marks

Technical Architecture:

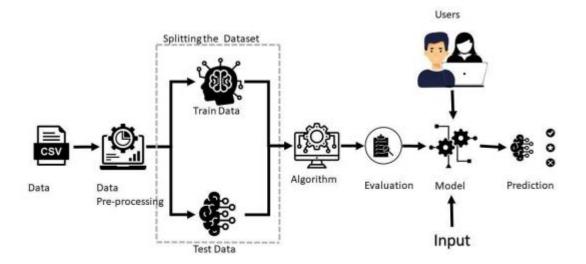


Table 1: Components and Technologies

S.No	Component	Description	Technology
1.	User Interface	User interacts with applications like Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc. can be used
2.	Application Logic-1	Training a model by multiple datasets to predict accurate outcomes	Java / Python
3.	Application Logic-2	Provides interaction between conversation system and users like chatbot	IBM Watson STT service
4.	Application Logic-3	To automate interactions with end users add natural language interface to your 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 Service or Local Filesystem
8.	External API-1	Web applications are available to developers and other users with minimal restrictions	Web Application
9.	External API-2	Access is limited to authorized clients with official licenses and thus security measures tend to be stronger	Partner API, etc.
10.	Machine Learning Model	Regression uses linear relationships between a dependent variable (target) and one or more independent variables (predictors) to predict the future of the target.	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration:	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is used for developing web applications using python	Some of the Opensource framework are Cloud, Agile and DevOps
2.	Security Implementations	SSL(Secured Sockets Layers), TLS(Transport Layer Security)	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	With help of this technology, it is easily accessible and affordable to all people	Technology used
4.	Availability	It is fast, efficient, reliable and easily available. Chance of error is also minimum	Technology used
5.	Performance	This system supports multiple user at a time and provides results within 5 to 7 seconds at maximum	Technology used