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

Date	20 October 2022
Team ID	PNT2022TMID34839
Project Name	University Admit Eligibility Predictor
Maximum Marks	4 Marks

Technical Architecture:
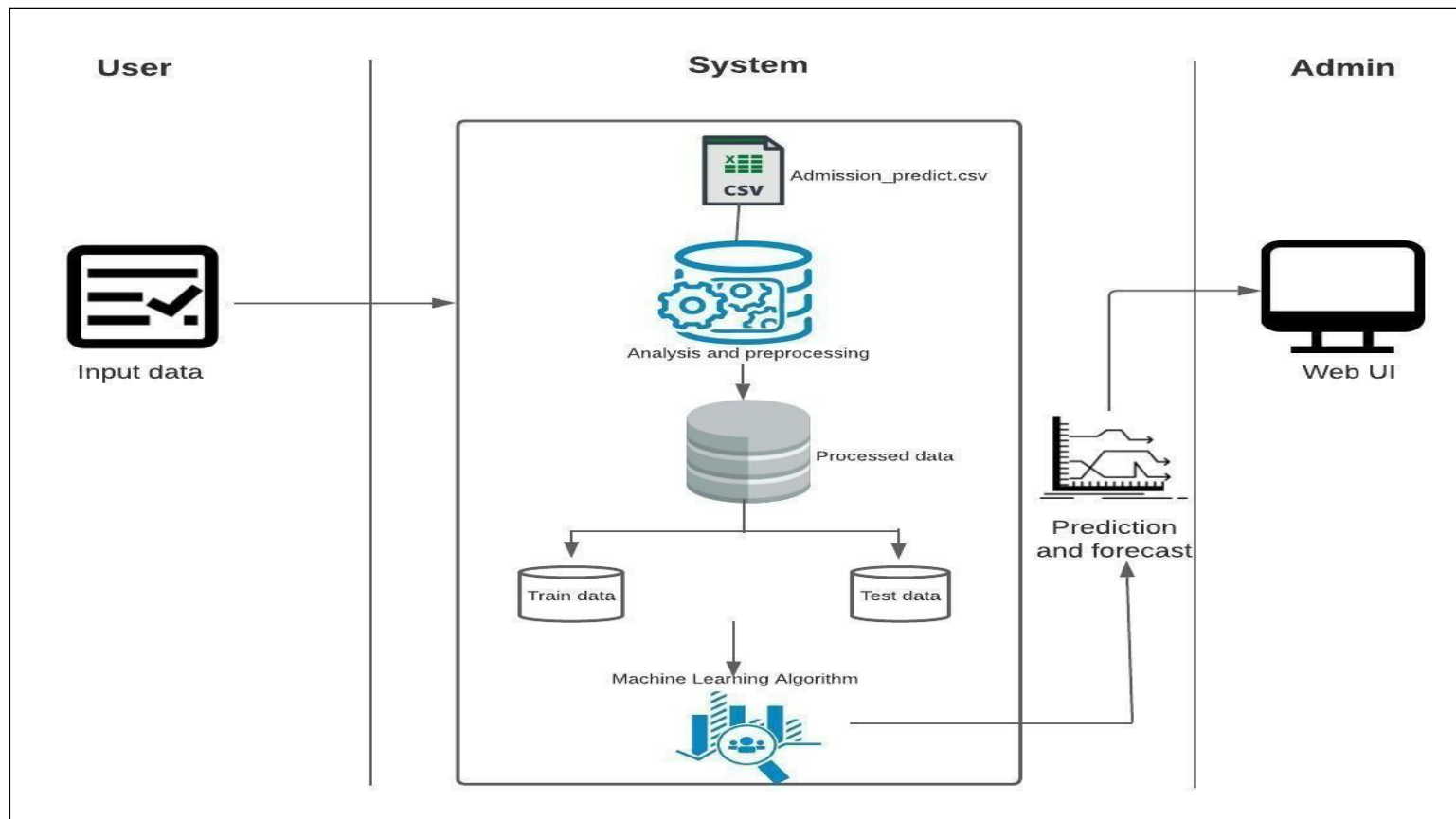
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User can interacts with the application through Web UI	HTML, CSS, JavaScript, Bootstrap, Flask
2.	Application Logic-1	Students can enter the required data in the form and it is displayed using flask and send to machine learning model for prediction	Python
3.	Application Logic-2	The application is directly deployed in the IBM cloud	IBM Watson STT service
4.	Application Logic-3	It uses AI to give fast, consistent and accurate answers for application	IBM Watson Assistant
5.	Database	The user credentials is stored and used to send notification of any updates	MySQL
6.	Cloud Database	Use to organize, store and manage data within the organisation.	IBM DB2, IBM Cloud
7.	File Storage	Stores data in a hierarchical structure	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	It checks the user data in accordance with the government standard and validate the user data provided	Aadhaar API
9.	Machine Learning Model	The model is used to predict whether the student is eligible or not	Object Recognition Model, etc.
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud System	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python is used for backend purpose and flask is imported for front end pupose	Python, Flask
2.	Security Implementations	Data inside the system will be protected against malware attacks or unauthorized access	SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	The accurate list of eligible universities name and user manual will be provided	KNN Algorithm
4.	Availability	It is available 24/7 and anyone can use it at anytime	IBM Load Balancer
5.	Performance	The user can have a knowledge of their eligibility for applying universities through our website	KNN Algorithm