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

Date	12 November 2022
Team ID	PNT2022TMID52352
Project Name	University Admit Eligibility Predictor
Maximum Marks	4 Marks

Technical Architecture:
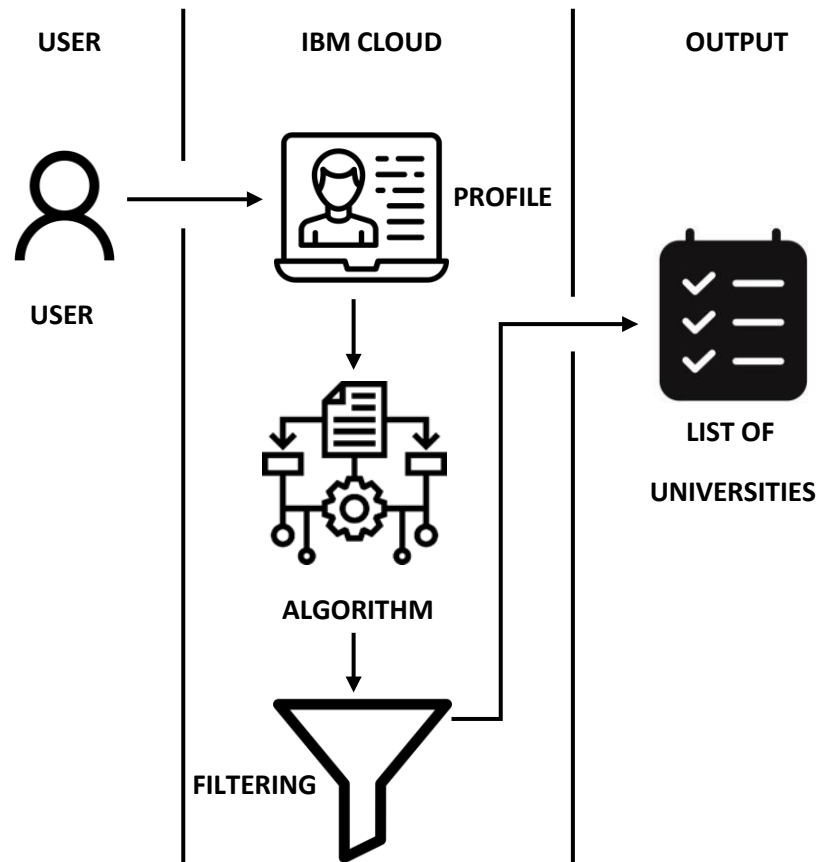
Guidelines:

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

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
2.	Application Logic-1	Logic for machine learning	Python
3.	Application Logic-2	Logic for a user interface	IBM Watson Assistant
4.	Database	Data Type, Configurations of Database	MySQL, CSV
5.	File Storage	File storage requirements	IBM Block Storage and Local Filesystem
6.	External API-1	Eligible Colleges are filtered from all possible universities	List of Universities
7.	Machine Learning Model	Criteria Based Filtering	KKN, Decision Trees
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python for back-end and Flask imported for front-end	Python (Flask)
2.	Security Implementations	User data must be secure	Encryptions, Profile credentials
3.	Scalable Architecture	List of universities can be expanded	Random Forest ML Algorithm
4.	Availability	Servers can't be overwhelmed	IBM Load Balancer
5.	Performance	Accuracy of eligible university list provided	KKN Algorithm