

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

Date	24 October 2022
Team ID	PNT2022TMID35187
Project Name	Project - University Admit Eligibility Predictor
Maximum Marks	4 Marks

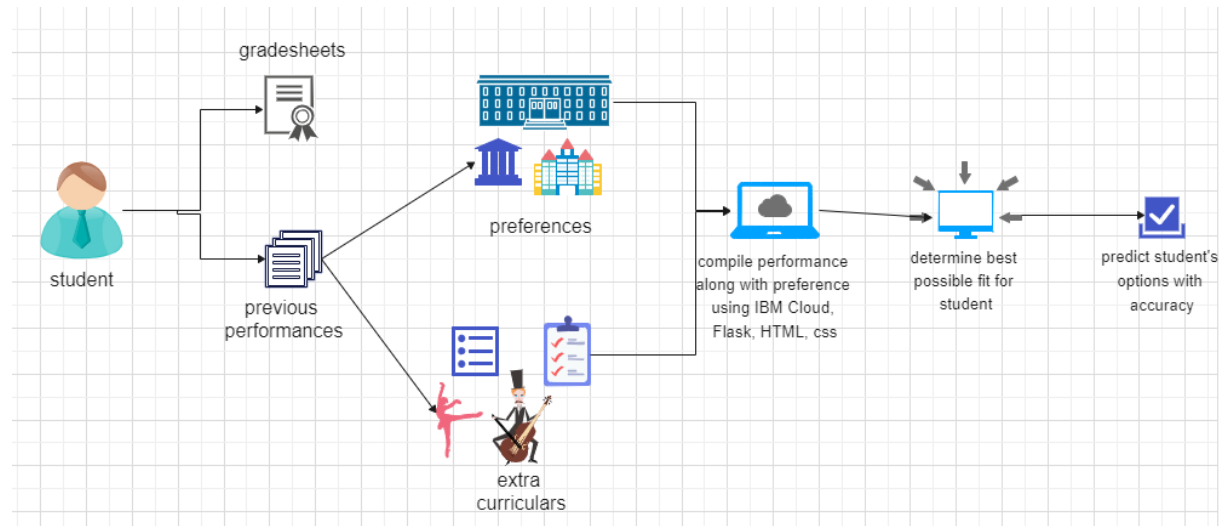


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The 'university admit eligibility predictor' is a website that is used to accurately predict a student's potential options	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Assessing student's previous performances	Java / Python
3.	Application Logic-2	Analysing student's co-curricular and extra-curricular interests	Java/Python
4.	Application Logic-3	Compatibility test to determine student's best options	IBM Watson Assistant
5.	Database	Stores requisites for universities across all countries as well as all the courses offered by these universities	MySQL, NoSQL, etc.
6.	Cloud Database	Data stored in the cloud to be accessible from anywhere	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.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	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	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
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 Cache, use of CDN's) etc.	Technology used

References:

<https://c4model.com/>

<https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/>

<https://www.ibm.com/cloud/architecture>

<https://aws.amazon.com/architecture>

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>