Project Design Phase II

Technology Stack (Architecture & Stack)

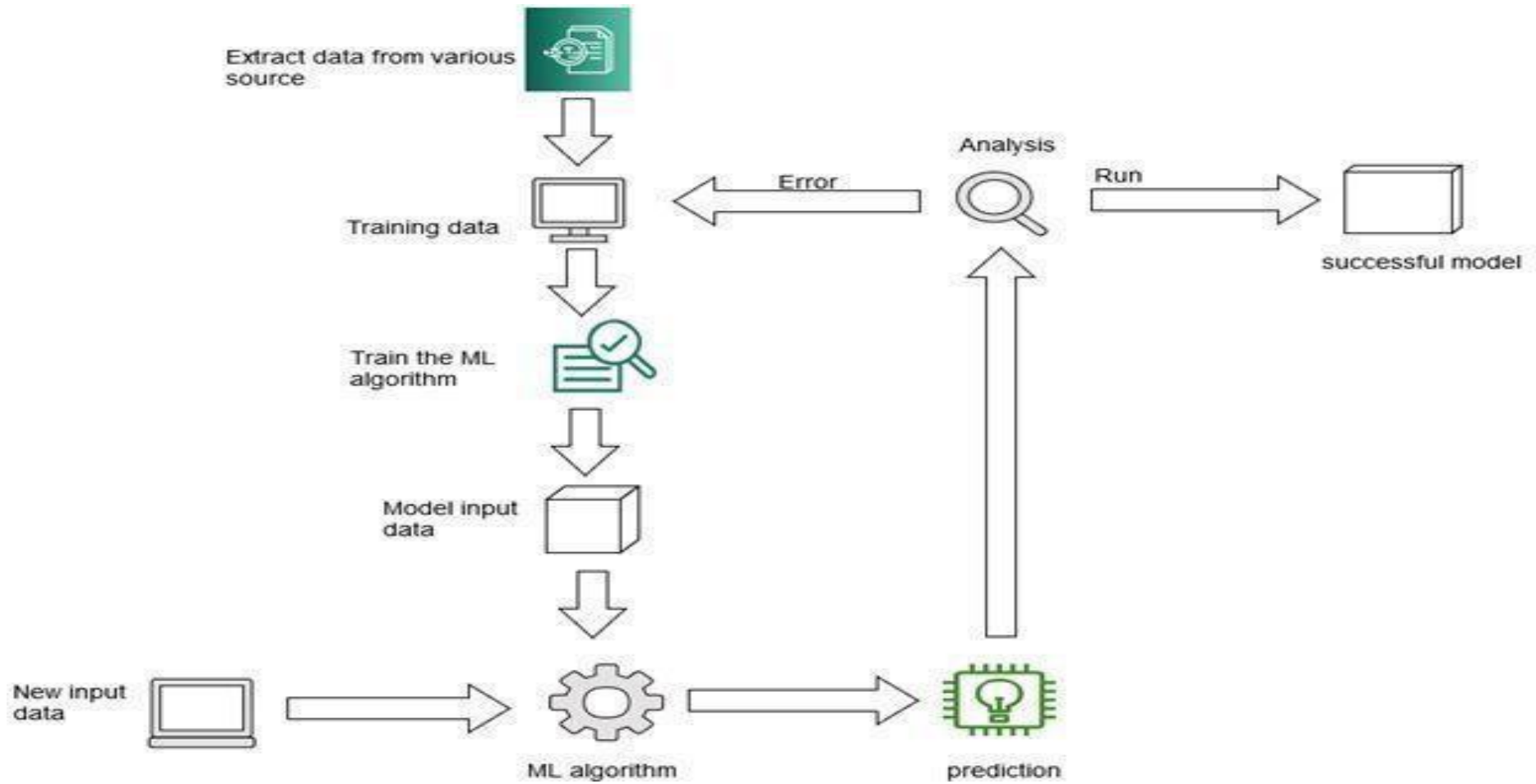| Date	8 October 2022
Team ID	PNT2022TMID12009
Project Name	Project - University Admit Eligibility Predictor
Maximum Marks	4 Marks

Abstract:

- The aim of this project is to help students in shortlisting universities with their profiles.
- The predicted output gives them a fair idea about their admission chances to a particular university.
- This analysis should also help students who are currently preparing or will be preparing to get a better idea.
- For an aspiring graduate student, choosing which universities to apply to is really a difficult problem.
- Often, the students wonder if their profile is good enough for a certain university.
- University and College research being one part of the university application process is itself an arduous and lengthy task.
- This issue being a big problem for students have not been solved till now. Hence, we have done this project to solve this issue.

Objectives:

- College admission predictor is a boon to many students. This helps the student not only to help in filling out the application forms but also give the students an idea about their future college by calculating their cut off.
- When students come from rural places, they find it hard to go along with the formal procedures. So, this application helps them a lot and eases out their fear.
- Whatever may be their scores, this application helps to find the best colleges. Hence, our proposed computer aided system which help the students to get the list of all colleges in which they could get the admission at the click of a button.
- The students only have to enter their marks of XII, AIEEE etc. With this application, the students can very easily obtain the list of colleges even branch wise and course wise. This will not only make the admission process easy but also minimizes stress for students. The main objective of our system is to make the right choice of colleges.
- Recommending best suitable universities to students based on their GRE, GPA and TOEFL scores and also predicting admission probability.

Technical Architecture:

Extract data from various source

Training data

Error

Analysis

Run

successful model

Train the ML algorithm

Model input data

New input data

ML algorithm

prediction

Technical Architecture:

1. First, extract data from various source.
2. Training the given data.
3. Train the ML algorithm with the given data.
4. Model the input data.
5. Model input data are given to ML algorithm.
6. New input data are given to ML algorithm.
7. With the help of ML algorithm, prediction is performed.
8. This prediction is further analyzed.
9. While analyzing, if an error occurs the data is trained again.
10. If prediction analysis runs well then it is considered as a successful model.

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application	HTML, CSS
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type (CSV FILE)	Kaggle website
6.	Model of the data	Building model of the data	Machine learning
7.	Libraries	Import libraries into data set	Pandas, Seaborn, Matplot lib,Numpy
8.	Training and testing data	Purpose of data training and testing	Regression ,Classification, clusteringAlgorithms , SK learn
9.	Testing Data	Tests data using Agile methodology	Agile methodology
10.	Accuracy	Accuracy of the tested and trained data	Mean_squared_error, Mean_absolute_error
11.	Infrastructure (Server)	Application Deployment on Local System	Local.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Flask framework
2.	CSV file	Importing CSV file	Pandas
3.	Data visualization	Perform data visualization	Matplot(pie charts,histograms)
4.	Testing and Training	Create testing and training for the dataset	Technology used standardScaler, MinMaxScaler
5.	Performance	Design consideration for the performance of the application	Technology used IBM wastson