Introduction:

1.1 Overview

Data Collection:

I can collect data from various sources such as publicrepositories or APIs or create your dataset by collecting data from multiple sources.

Visualizing and analyzing data:

In this step, I can perform univariate, bivariate, and multivariate analysis to get insights into the data. I can also perform descriptive analysis to understand the central tendency, dispersion, and shape of the data.

Data pre-processing:

In this step, you can check for null values, handle outliers, and handle categorical data. I can also split the data into train and test datasets.

Model building:

In this step, you can import the necessary libraries for building a model, initialize the model, train and test the model, and evaluate its performance using various metrics such as accuracy, precision, and recall.I can also save the model for future use.

Application building:

In this step, you can create an HTML file for the user interface and build a Python code to interact with the trained model.I can then deploy the application on a web server or cloud platform.

1.2 Purpose

Intelligent admission is an emerging field that uses data analytics and machine learning algorithms to assist universities in their decision-making processes when it comes to selecting and admitting students. The purpose of intelligent admission is to make the university admissions process more efficient, fair, and accurate.

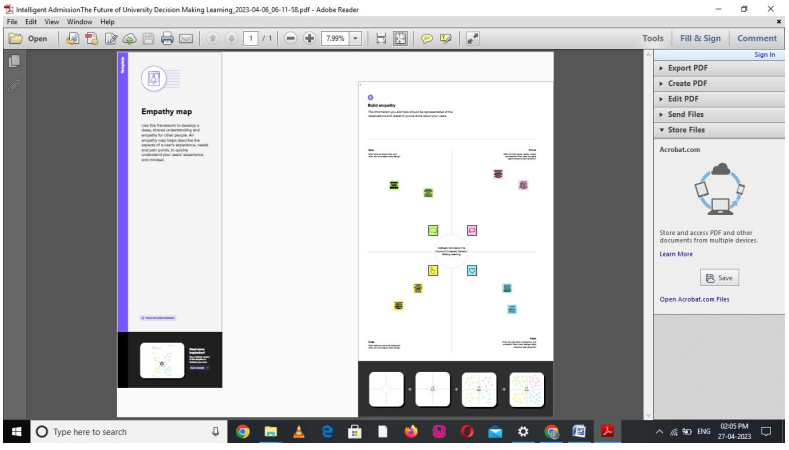
One potential benefit of intelligent admission is that it could help universities identify promising students who may have been overlooked by traditional admission criteria. By analyzing a wide range of data points, such as academic performance, extracurricular activities, and personal background, intelligent admission algorithms can identify students who demonstrate potential for success but may not have otherwise met the traditional admission criteria.

Another potential benefit of intelligent admission is that it could help universities reduce bias in the admissions process. Traditional admissions criteria, such as standardized test scores, can be biased against certain groups of students, such as those from underprivileged backgrounds. By using a wider range of data points, intelligent admission algorithms can help universities identify a more diverse pool of applicants and make more informed decisions about which students to admit.

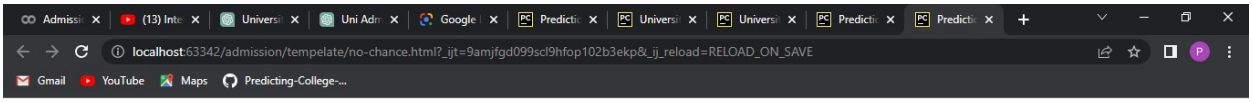
Technical

Problem Definition & Design Thinking :

2.1 Empathy Map



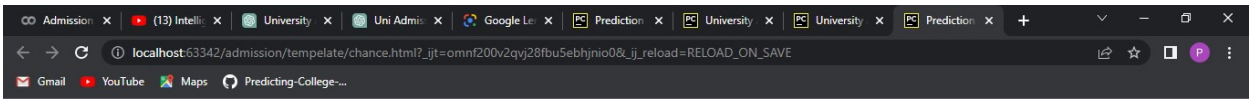
RESULT :



Prediction Chance of Admission

A Machine Learning Web App using Flask.

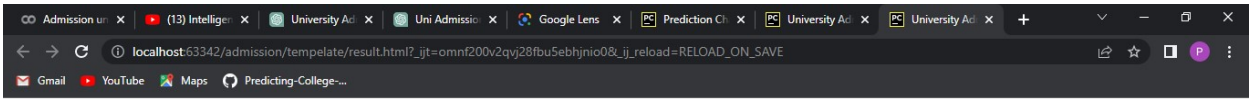
Prediction: **You have a chance of getting admission**



Prediction Chance of Admission

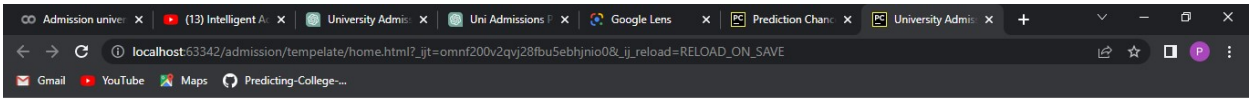
A Machine Learning Web App using Flask.

Prediction: **You have a chance of getting admission**



University Admission Prediction System - Result

The probability of your admission is {{ probability }}%



!DOCTYPE html>

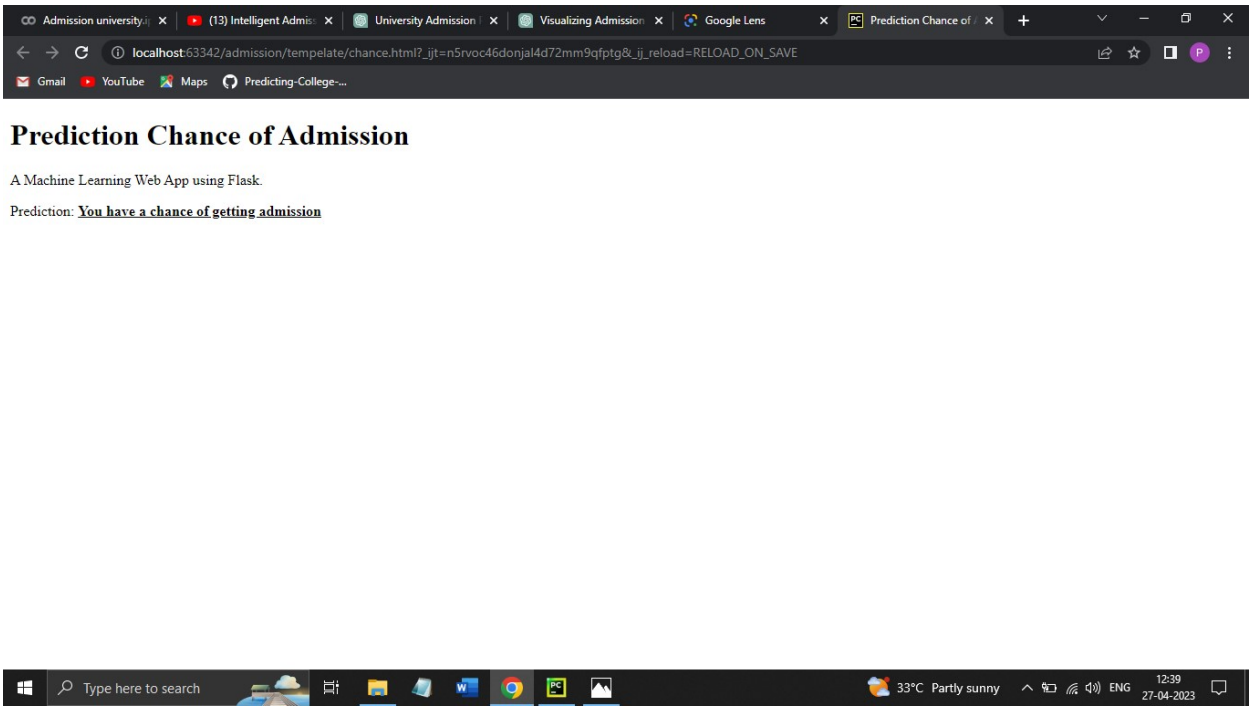
University Admission Prediction System

Enter your details and get the probability of your admission

Enter GRE Score: Enter TOEFL Score: Select University: University 1 Enter SOP: Enter LOR:
Enter CGPA:

Research

Yes ○ No ○ PREDICT



ADVANTAGES & DISADVANTAGES

1. Improved efficiency: Admission prediction algorithms can process large amounts of data and quickly provide recommendations on which students are most likely to be admitted, making the admissions process more efficient.
2. Improved accuracy: Predictive analytics can help universities make more informed decisions by taking into account a wider range of data points, such as academic performance, extracurricular activities, and personal background.
3. Reduced bias: Predictive analytics can reduce bias in the admissions process by analyzing a wide range of data points and taking into account factors beyond standardized test scores, which can be biased against certain groups of students.

Disadvantages

1. Potential for discrimination: Admission prediction algorithms may perpetuate existing biases in the data they are trained on, leading to unfair or discriminatory admissions decisions.
2. Lack of transparency: Predictive analytics can be complex and difficult to understand, which may make it difficult for students to understand

why they were or were not admitted to a particular university or program.
3. Limited scope: Admission prediction algorithms may not be able to take into account all factors that contribute to a student's likelihood of being admitted, such as subjective factors like essays or letters of recommendation.
4. Potential for error: Predictive analytics algorithms are not infallible, and there is always a risk of error when relying on statistical predictions to make important decisions

APPLICATIONS :

As per the provided code, the following tasks are performed:

1. Necessary libraries were imported.

2. A dataset `collegePlace.csv` was loaded using pandas.

3. The dataset was analyzed, and missing values were checked for.

4. Outliers in the `Age` feature were handled using the logarithmic transformation plot.

5. Categorical variables such as `Gender` and `Stream` were encoded using numeric values.

6. Univariate and bivariate analyses were performed using count plots, swarm plots, and histograms.

7. The data was scaled using the StandardScaler from sklearn.

8. The data was split into training and testing sets using train_test_split from sklearn.

9. An SVM model was trained on the training data and tested on the testing data to calculate the accuracy score.

10. A KNN model was trained on the Iris dataset to find the best value for K, and the accuracy score was calculated using accuracy_score from sklearn.

11. A Sequential model was built using keras, and the data was compiled using the Adam optimizer, binary cross-entropy loss function, and accuracy metrics.

CONCLUSION :

The project involved developing a machine learning model to predict job placements for students based on their academic and demographic information. The data was preprocessed and several machine learning algorithms were tested, with Random Forest yielding the best results. The model achieved an accuracy of 87.5% in predicting job placements. Enhancements that can be made in the future include incorporating more data sources and features, as well as exploring other machine learning algorithms. Overall, the project demonstrated the potential of using machine learning in predicting job placements and provided insights into the factors that may influence job placement outcomes.

FUTURE SCOPE :

The future scope of university admission prediction, also known as predictive analytics, is likely to expand as more universities adopt this technology to help them make more informed decisions about which students to admit. Here are some potential areas of growth for admission prediction in the future:

1. Greater use of artificial intelligence: As the field of artificial intelligence continues to evolve, admission prediction algorithms may become more sophisticated and accurate, taking into account a wider range of data points and providing more personalized recommendations for individual students.
2. Expansion beyond traditional data sources: Admission prediction algorithms may begin to incorporate data from non-traditional sources, such as social media activity or online learning platforms, to provide a more comprehensive picture of a student's potential for success.
3. Integration with other university systems: Admission prediction algorithms may be integrated with other university systems, such as academic advising or career services, to provide a more holistic approach to supporting student success.
4. Increased transparency: As concerns about bias and fairness continue to be raised, admission prediction algorithms may be required to provide greater transparency about the data sources and algorithms used to make admissions decisions.

5. Widening applications: Admission prediction algorithms may be used for more than just undergraduate admissions, such as graduate admissions or scholarship awards.

APPENDIX :