CONTENTS

1.INTRODUCTION

1.1 Overview

Intelligent Admissions: The Future of University Decision Making with Machine Learning is a serious health condition that affects millions of people worldwide. It is a long-term condition that occurs when the kidneys are damaged and cannot function properly, leading to a buildup of waste and fluids in the body.

Early prediction for detection is crucial to prevent further kidney damage and to improve patient outcomes. Early detection can also help healthcare providers develop appropriate treatment plans and prevent the progression of the disease.

There are several methods for early prediction of CKD, including blood and urine tests, imaging tests, and genetic testing. Blood and urine tests can measure the levels of certain substances in the body that can indicate kidney function. Imaging tests, such as ultrasounds or CT scans, can also detect kidney damage. Genetic testing can identify genetic mutations that may increase the risk of CKD.

Machine learning algorithms have also been used to predict the risk of CKD development in patients. These algorithms use patient data, such as age, sex, medical history, and lab results, to develop predictive models that can identify patients at high risk of developing CKD.

Overall, early prediction for CKD detection is critical for early intervention and management of the disease. With early detection, healthcare providers can improve patient outcomes, prevent the progression of the disease, and reduce healthcare costs.

1.2 Purpose

The purpose of Intelligent Admissions: The Future of University Decision Making with Machine Learning is to identify individuals who are at risk of developing CKD or who have early-stage CKD before they experience significant kidney damage. Early detection of CKD can help healthcare providers develop appropriate treatment plans and prevent the progression of the disease.

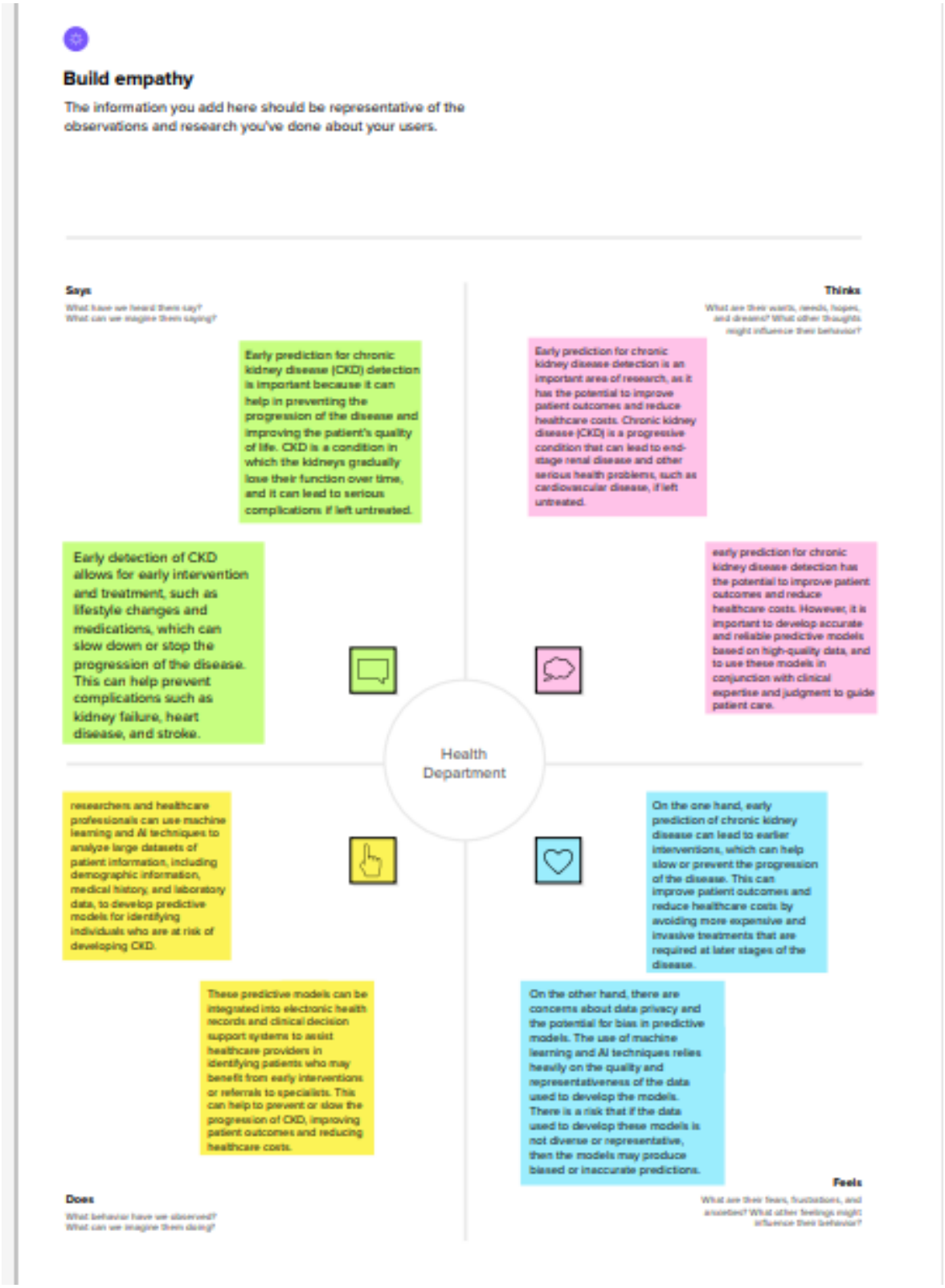
Early prediction of can also help healthcare providers identify and manage underlying conditions that may contribute to the development or progression of, such as high blood pressure, diabetes, and autoimmune disorders. By managing these conditions early, healthcare providers can help prevent further damage to the kidneys and improve patient outcomes.

Moreover, early prediction of can lead to cost savings for healthcare systems by preventing the need for costly treatments such as dialysis and kidney transplantation. Early intervention and management of can also help improve the quality of life for patients by reducing symptoms and complications associated with.

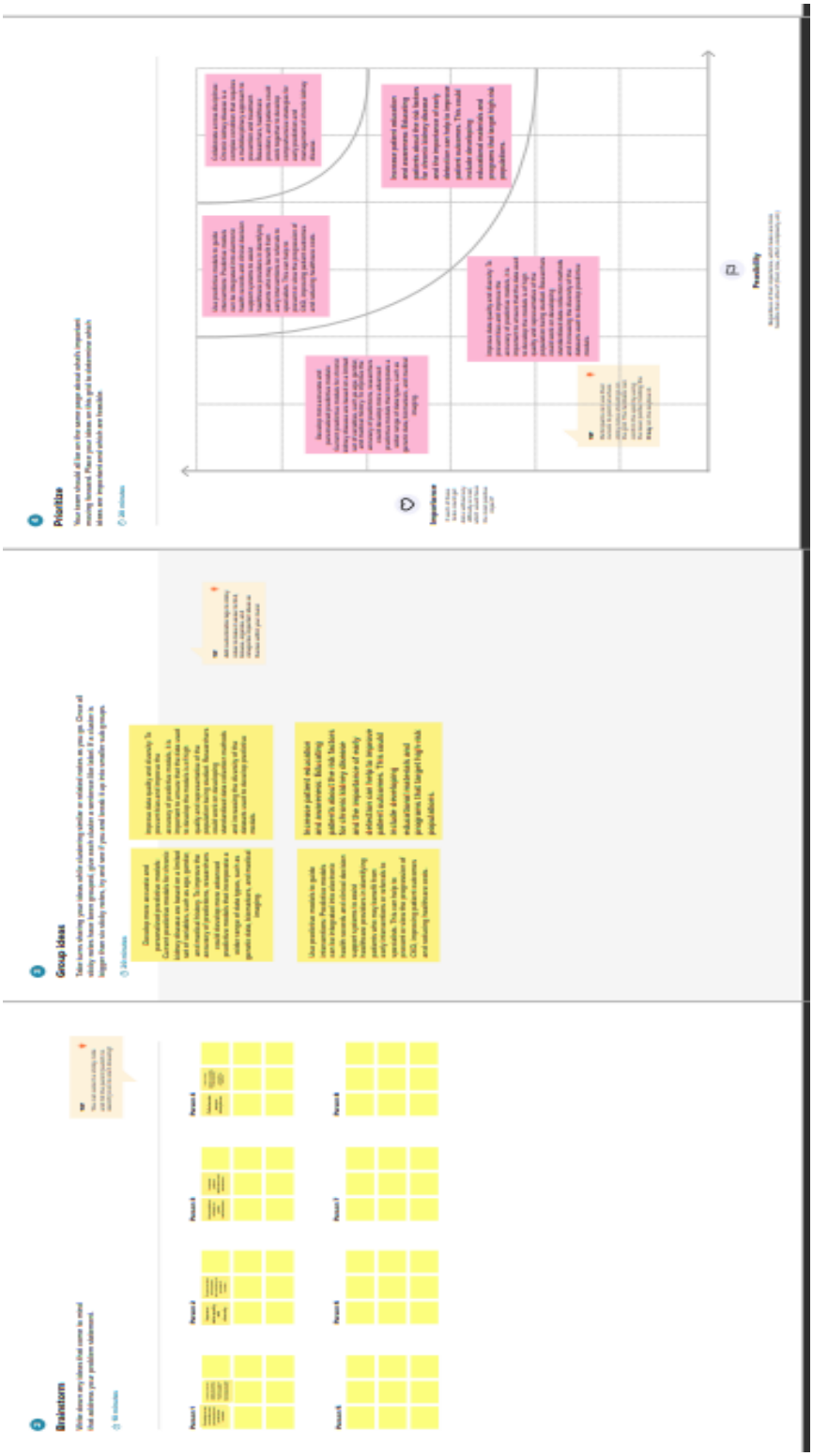
In summary, the purpose of early prediction for detection is to identify individuals at risk of developing CKD or who have early-stage CKD, allowing for early intervention and management, thereby reducing the risk of complications, improving patient outcomes, and reducing healthcare costs.

2. Problem Definition & Design Thinking

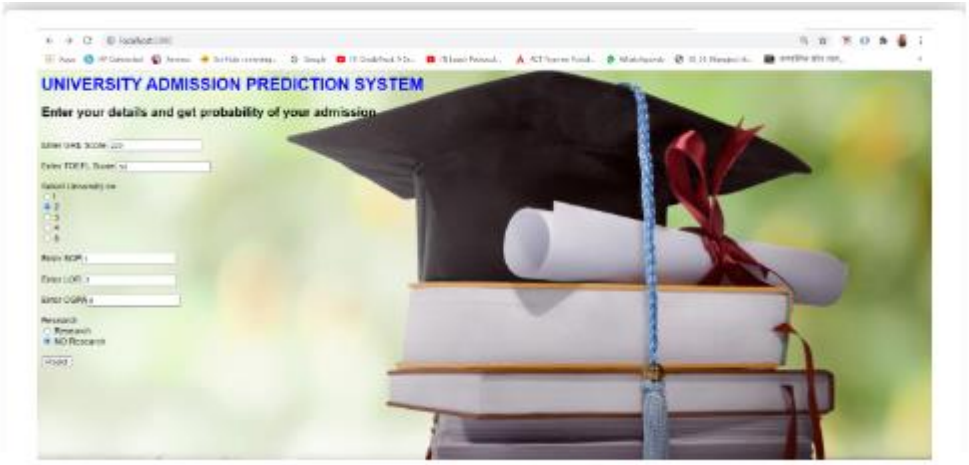
2.1 Empathy map

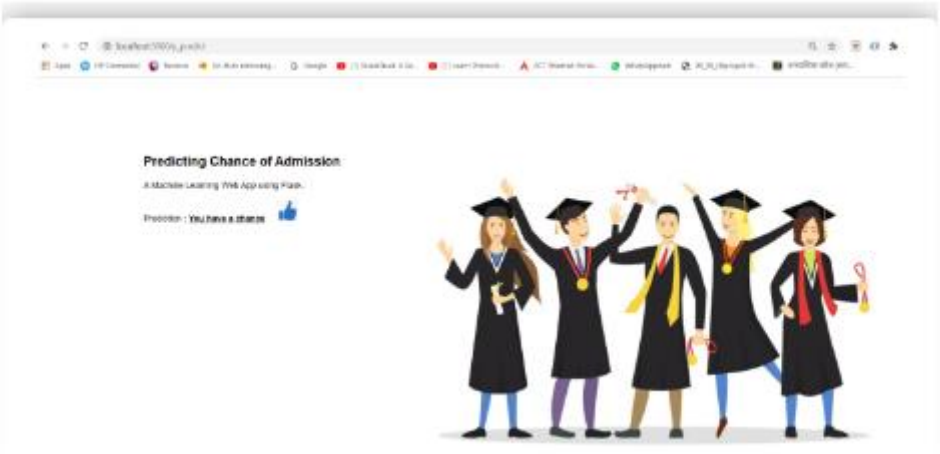


2.2 Ideation & Brainstroming map



3. Result


UNIVERSITY ADMISSION PREDICTION SYSTEM
Enter your details and get probability of your admission


Predicting Chance of Admission

4 Advantages & Disadvantages

Advantages:

Intelligent Admissions: The Future of University Decision Making with Machine Learning can help identify individuals who are at high risk of developing kidney disease, enabling them to take steps to prevent or slow the progression of the disease.

Early detection can lead to timely treatment and management of the disease, reducing the risk of complications such as kidney failure and cardiovascular disease.

Early prediction can help healthcare providers to plan appropriate interventions and allocate resources effectively.

Early prediction can help reduce healthcare costs associated with CKD treatment by preventing or delaying the onset of the disease.

Disadvantages:

Intelligent Admissions: The Future of University Decision Making with Machine Learning may not be accurate enough to accurately predict in all individuals, leading to false positives and false negatives.

Early prediction may lead to unnecessary testing and procedures, resulting in increased healthcare costs and patient anxiety.

Early prediction may result in overdiagnosis, leading to treatment of individuals who may not have developed CKD without intervention.

Early prediction may not be feasible in all healthcare settings due to the availability of resources and technology required to implement predictive models.

5 Applications

There are several applications of early prediction of chronic kidney disease, including:

Preventative healthcare: Intelligent Admissions: The Future of University Decision Making with Machine Learning can identify individuals who are at high risk of developing the disease. By identifying these individuals early, healthcare providers can offer preventative measures such as lifestyle modifications, blood pressure control, and medication management to slow or prevent the progression of the disease.

Patient management: Early prediction of can help healthcare providers to monitor patients more closely and provide targeted interventions to prevent or delay the onset of complications associated with the disease.

Resource allocation: Early prediction of can help healthcare providers to allocate resources more effectively by identifying patients who require more intensive monitoring and management.

Clinical research: Early prediction of can provide valuable insights into the disease process, enabling researchers to develop new treatments and interventions to prevent or delay the progression of the disease.

Population health management: Early prediction of can be used to identify populations at high risk of developing the disease, enabling public health officials to develop targeted interventions to prevent or delay the onset of in these populations.

6. Conclusion

Intelligent Admissions: The Future of University Decision Making with Machine Learning is a valuable tool for identifying individuals who are at high risk of developing the disease. By identifying these individuals early, healthcare providers can offer preventative measures and targeted interventions to prevent or slow the progression of the disease, leading to better health outcomes and reduced healthcare costs. However, there are also potential disadvantages to early prediction, such as false positives and false negatives, unnecessary testing and procedures, and overdiagnosis. Therefore, healthcare providers should carefully consider the benefits and limitations of early prediction models and use them judiciously to improve patient outcomes and population health**.**

7. Future Scope

The Future scope for early prediction of Intelligent Admissions: The Future of University Decision Making with Machine Learning is promising, as there are several emerging technologies and approaches that have the potential to improve the accuracy and accessibility of early prediction models. Some of the potential future developments in this field include:

Use of machine learning: Machine learning algorithms have shown promise in predicting, and future research could explore ways to improve the accuracy of these models by incorporating additional data sources or developing more sophisticated algorithms.

Integration of genetic data: Advances in genomics have enabled the identification of genetic markers associated with, and future research could explore ways to integrate this information into early prediction models.

Wearable devices: Wearable devices such as smartwatches and fitness trackers could be used to monitor key health metrics such as blood pressure and heart rate, providing valuable data for early prediction models.

Telemedicine: Telemedicine could be used to expand access to early prediction models in underserved communities, enabling healthcare providers to identify individuals at high risk of developing CKD and provide targeted interventions to prevent or slow the progression of the disease.

Personalized medicine: Personalized medicine approaches could be used to tailor interventions based on an individual's risk profile and disease progression, improving the effectiveness of early prediction models and reducing the risk of adverse outcomes.

Overall, the future of early prediction of CKD is likely to involve a combination of technological advancements and personalized approaches, enabling healthcare providers to identify and manage more effectively and improve patient outcomes

8. Appendix

	GRE Score	TOEFL Score	University Rating	SOP	LOR	CGPA	Research	Chance of Admit
count	400.000000	400.000000	400.000000	400.000000	400.000000	400.000000	400.000000	400.000000
mean	316.807500	107.410000	3.087500	3.400000	3.452500	8.598925	0.547500	0.724350
std	11.473646	6.069514	1.143728	1.006869	0.898478	0.596317	0.498362	0.142609
min	290.000000	92.000000	1.000000	1.000000	1.000000	6.800000	0.000000	0.340000
25%	308.000000	103.000000	2.000000	2.500000	3.000000	8.170000	0.000000	0.640000
50%	317.000000	107.000000	3.000000	3.500000	3.500000	8.610000	1.000000	0.730000
75%	325.000000	112.000000	4.000000	4.000000	4.000000	9.062500	1.000000	0.830000
max	340.000000	120.000000	5.000000	5.000000	5.000000	9.920000	1.000000	0.970000

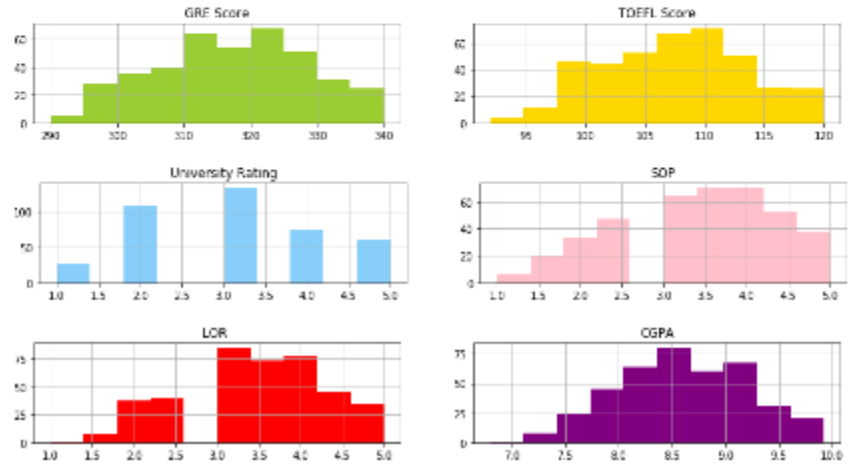
```
data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 400 entries, 0 to 399
Data columns (total 8 columns):
 #   Column             Non-Null Count  Dtype  
---  ------             --------------  -----  
 0   GRE Score          400 non-null    int64  
 1   TOEFL Score        400 non-null    int64  
 2   University Rating  400 non-null    int64  
 3   SOP                400 non-null    float64
 4   LOR                400 non-null    float64
 5   CGPA               400 non-null    float64
 6   Research           400 non-null    int64  
 7   Chance of Admit    400 non-null    float64
dtypes: float64(4), int64(4)
memory usage: 25.1 KB
```

Let us import necessary libraries to get started!

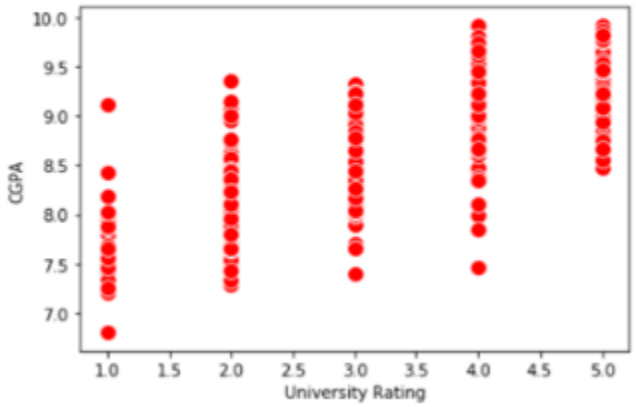
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
```

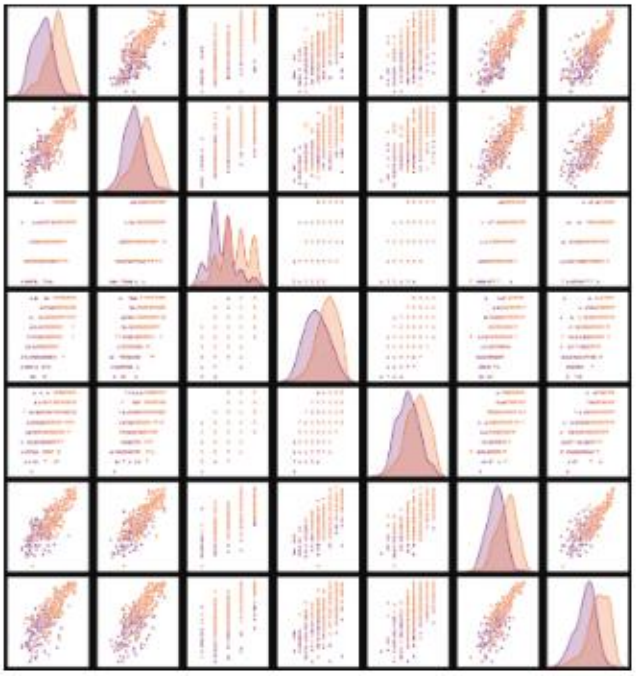
```
category = ['GRE Score','TOEFL Score','University Rating','SOP','LOR ','CGPA','Research','Chance of Admit']
color = ['yellowgreen','gold','lightskyblue','pink','red','purple','orange','gray']
start = True
for i in np.arange(4):
    fig = plt.figure(figsize=(14,8))
    plt.subplot2grid((4,2),(i,0))
    data[category[2*i]].hist(color=color[2*i],bins=10)
    plt.title(category[2*i])
    plt.subplot2grid((4,2),(i,1))
    data[category[2*i+1]].hist(color=color[2*i+1],bins=10)
    plt.title(category[2*i+1])

plt.subplots_adjust(hspace = 0.7, wspace = 0.2)
plt.show()
```



```
sns.scatterplot(x='University Rating',y='CGPA',data=data,color='Red', s=100)
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x2b6e49feec8>
```





```
sns.distplot(data['GRE Score'])
```

```
/usr/local/lib/python3.8/dist-packages/seaborn/distributions.py:2619: FutureWarr
  warnings.warn(msg, FutureWarning)
<matplotlib.axes._subplots.AxesSubplot at 0x7fb383bf3e80>
```