

Colab interface showing the initial code setup for a machine learning project. The code imports necessary libraries and reads a CSV file named 'collegePlace.csv'.

```
import numpy as np
import pandas as pd
import os

import seaborn as sns
import matplotlib.pyplot as plt
from sklearn import svm
from sklearn.metrics import accuracy_score
from sklearn.neighbors import KNeighborsClassifier
from sklearn import metrics
from sklearn.model_selection import cross_val_score
from sklearn import preprocessing
from sklearn.model_selection import train_test_split
from sklearn.preprocessing import StandardScaler
import joblib
from sklearn.metrics import accuracy_score

[ ] df = pd.read_csv(r"/content/collegePlace.csv")
df.head()
```

The file explorer shows the following files: Empathy map (2).docx, DOC-20230411-....docx, and Output (2).docx.

Colab interface showing the execution of the code, displaying the first five rows of the 'collegePlace.csv' dataset and the output of the 'df.info()' command.

```
df = pd.read_csv(r"/content/collegePlace.csv")
df.head()

df.info()
```

The output of 'df.head()' shows the following data:

	Age	Gender	Stream	Internships	CGPA	Hostel	HistoryOfBacklogs	PlacedOrNot
0	22	Male	Electronics And Communication	1	8	1	1	1
1	21	Female	Computer Science	0	7	1	1	1
2	22	Female	Information Technology	1	6	0	0	1
3	21	Male	Information Technology	0	8	0	1	1
4	22	Male	Mechanical	0	8	1	0	1

The output of 'df.info()' shows the following information:

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2966 entries, 0 to 2965
Data columns (total 8 columns):
#   Column              Non-Null Count  Dtype
---  -
0   Age                 2966 non-null  int64
1   Gender              2966 non-null  object
```

The file explorer shows the following files: Advantage and d....docx, Empathy map (2).docx, DOC-20230411-....docx, and Output (2).docx.

Colaboratory interface showing a Jupyter Notebook with the following code and output:

```
df = pd.read_csv(r"/content/collegePlace.csv")
df.head()
```

	Age	Gender	Stream	Internships	CGPA	Hostel	HistoryOfBacklogs	PlacedOrNot
0	22	Male	Electronics And Communication	1	8	1	1	1
1	21	Female	Computer Science	0	7	1	1	1
2	22	Female	Information Technology	1	6	0	0	1
3	21	Male	Information Technology	0	8	0	1	1
4	22	Male	Mechanical	0	8	1	0	1

```
[ ] df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2966 entries, 0 to 2965
Data columns (total 8 columns):
#   Column              Non-Null Count  Dtype
---  --
0   Age                  2966 non-null  int64
1   Gender               2966 non-null  object
```

Output:

Colaboratory interface showing the continuation of the Jupyter Notebook with the following code and output:

```
[ ] df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2966 entries, 0 to 2965
Data columns (total 8 columns):
#   Column              Non-Null Count  Dtype
---  --
0   Age                  2966 non-null  int64
1   Gender               2966 non-null  object
2   Stream               2966 non-null  object
3   Internships          2966 non-null  int64
4   CGPA                 2966 non-null  int64
5   Hostel               2966 non-null  int64
6   HistoryOfBacklogs    2966 non-null  int64
7   PlacedOrNot          2966 non-null  int64
dtypes: int64(6), object(2)
memory usage: 185.5+ KB
```

Colaboratory interface showing a Jupyter Notebook with the following code and output:

```
df.isnull().sum()
```

Age	0
Gender	0
Stream	0
Internships	0
CGPA	0
Hostel	0
HistoryOfBacklogs	0
PlacedOrNot	0
dtype: int64	

```
def transformationplot(feature):  
    plt.figure(figsize=(12,5))  
    plt.subplot(1,2,1)  
    sns.distplot(feature)  
    transformationplot(np.log(df['Age']))
```

Taskbar shows: Advantage and d...docx, Empathy map (2).docx, DOC-20230411-...docx, Output (2).docx. System clock: 6:50 PM 4/11/2023.

Colaboratory interface showing a Jupyter Notebook with the following code and output:

```
@app.route('/')  
def hello():  
    return render_template("index.html")
```

Traceback (most recent call last):

```
<ipython-input-3-1d658fc4706e> in <cell line: 1>()  
----> 1 @ app.route('/')  
      2 def hello():  
      3     return render_template("index.html")
```

NameError: name 'app' is not defined

```
[ ] from flask import Flask, render_template , request  
app=Flask(__name__)  
import pickle  
import joblib  
model=pickle.load(open("placement123.pk1", 'rb'))  
ct=joblib.load('placement')
```

Taskbar shows: Advantage and d...docx, Empathy map (2).docx, DOC-20230411-...docx, Output (2).docx. System clock: 6:50 PM 4/11/2023.

Colaboratory interface showing a code cell with a `NameError` and a traceback.

```
from flask import Flask, render_template, request
app=Flask(__name__)
import pickle
import joblib
model=pickle.load(open("placement123.pkl", 'rb'))
ct=joblib.load('placement')
```

Traceback (most recent call last):

```
<ipython-input-6-77aa9f87d986> in <cell line: 5>()
      3 import pickle
      4 import joblib
----> 5 model=pickle.load(open("placement123.pkl", 'rb'))
      6 ct=joblib.load('placement')
```

FileNotFoundError: [Errno 2] No such file or directory: 'placement123.pkl'

Taskbar shows: Advantage and d...docx, Empathy map (2).docx, DOC-20230411-....docx, Output (2).docx. System clock: 6:50 PM 4/11/2023.

Colaboratory interface showing a code cell with K-Nearest Neighbors (KNN) implementation.

```
best_k={"Regular":0}
best_score={"Regular":0}
for k in range(3,50,2):
    ## Using Regular training set
    Knn_temp = KNeighborsClassifier(n_neighbors=k)
    Knn_temp_fit(x_train, Y_train)
    Knn_temp_pred = knn_temp.predict(x_test)
    Score = metrics.accuracy_score(Y_test, knn_temp_pred) * 100
    if score >= best_score["Regular"] and score < 100:
        best_score["Regular"] = score
        best_k["Regular"] = k

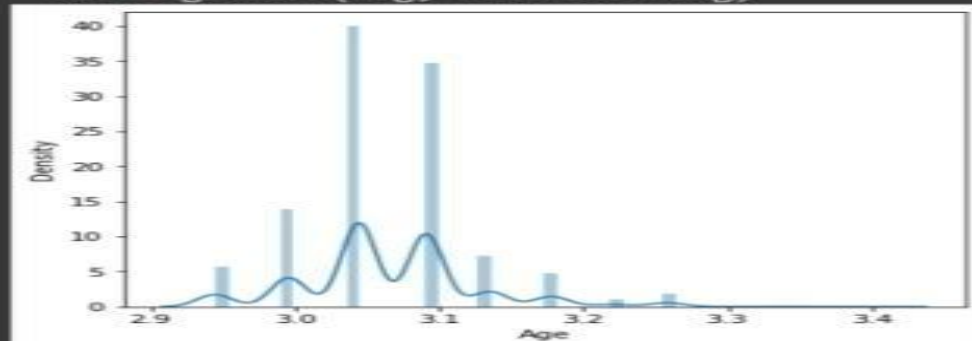
print("---Results---\nk: {} \nscore: {}".format(best_k, best_score))
## Instantiate the models
Knn = KNeighborsClassifier(n_neighbors=best_k["Regular"])
## Fit the model to the training set
Knn.fit(X_train, Y_test)
Knn_pred = knn.predict(X_test)
Tested = accuracy_score(knn_pred, Y_test)
```

Taskbar shows: Advantage and d...docx, Empathy map (2).docx, DOC-20230411-....docx, Output (2).docx. System clock: 6:54 PM 4/11/2023.

```
def transformationplot(feature):
    plt.figure(figsize=(12,5))
    plt.subplot(1,2,1)
    sns.distplot(feature)

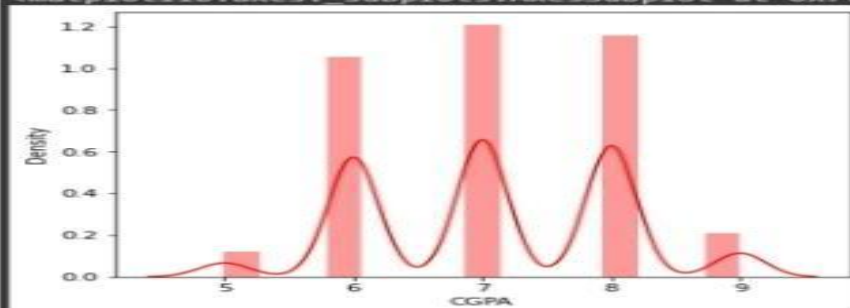
transformationplot(np.log(df['Age']))
```

```
/usr/local/lib/python3.8/dist-packages/seaborn/distributions.py:263:
warnings.warn(msg, FutureWarning)
```



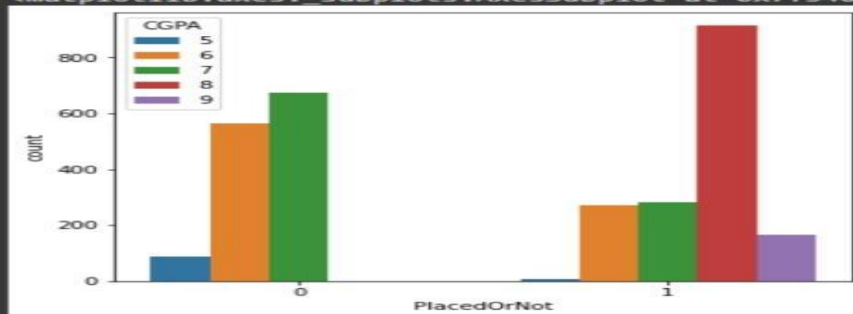
```
plt.figure(figsize=(12,5))
plt.subplot(121)
sns.distplot(df['CGPA'],color='r')
```

```
/usr/local/lib/python3.8/dist-packages/seaborn/distributions.py:263:
warnings.warn(msg, FutureWarning)
<matplotlib.axes._subplots.AxesSubplot at 0x7f5463e50d00>
```



```
plt.figure(figsize=(20,5))
plt.subplot(131)
sns.countplot(df["PlacedOrNot"],hue=df["CGPA"])
```

```
/usr/local/lib/python3.8/dist-packages/seaborn/_decorators.py:36: FutureWarning:
warnings.warn(
<matplotlib.axes._subplots.AxesSubplot at 0x7f5461cf85b0>
```



Plotting the count plot

```
plt.figure(figsize=(10,4))
plt.subplot(2,4,1)
sns.countplot(data["Gender"])
plt.subplot(2,4,2)
sns.countplot(data["Education"])
plt.show()
```

```
C:\Users\Plamaconda\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variable as a keyword arg: 'x'. From version 0.12, the only valid positional argument will be 'data', and passing other arguments without an explicit keyword will result in an error or misinterpretation.
warnings.warn(
C:\Users\Plamaconda\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variable as a keyword arg: 'x'. From version 0.12, the only valid positional argument will be 'data', and passing other arguments without an explicit keyword will result in an error or misinterpretation.
warnings.warn(
```

