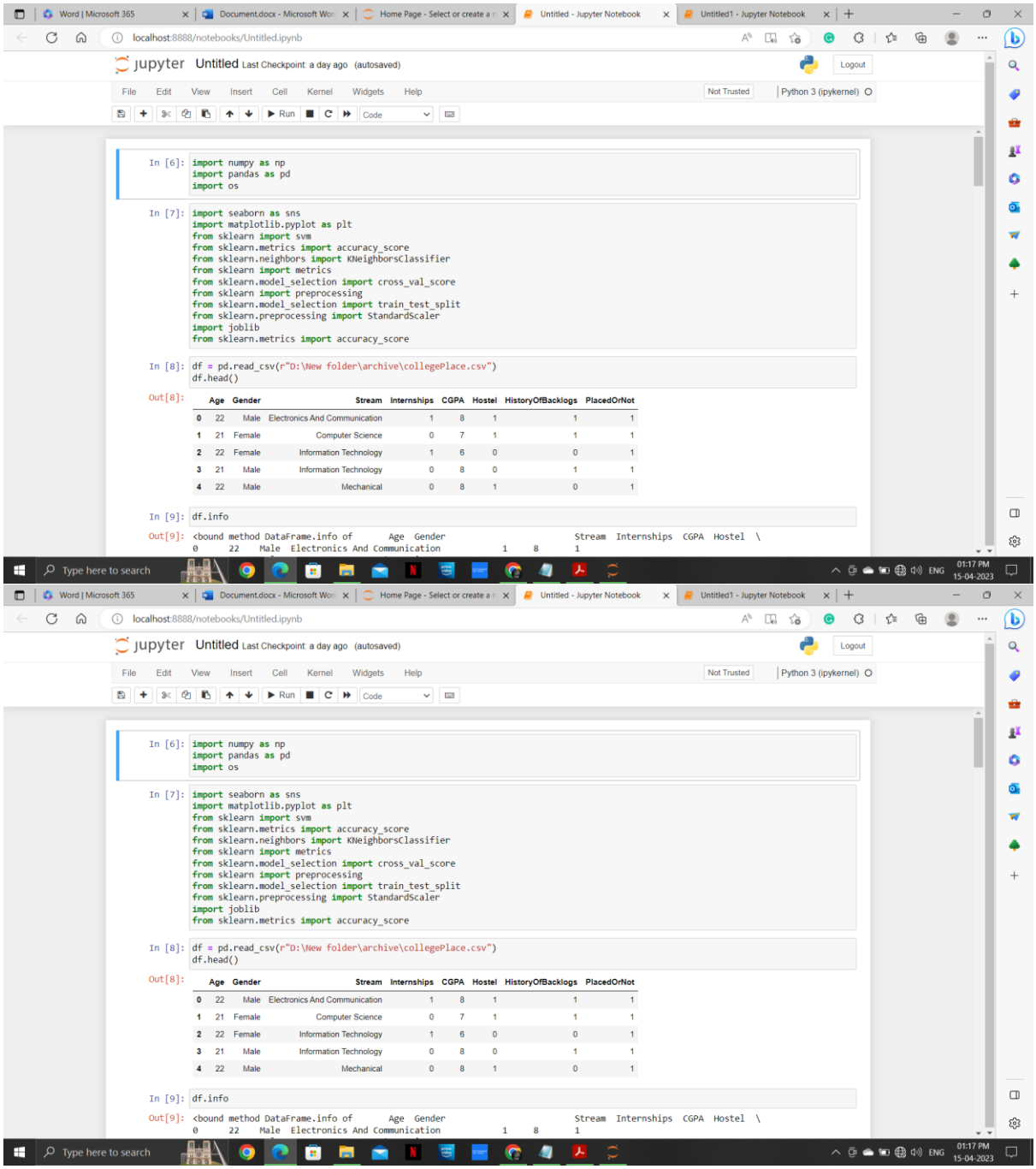
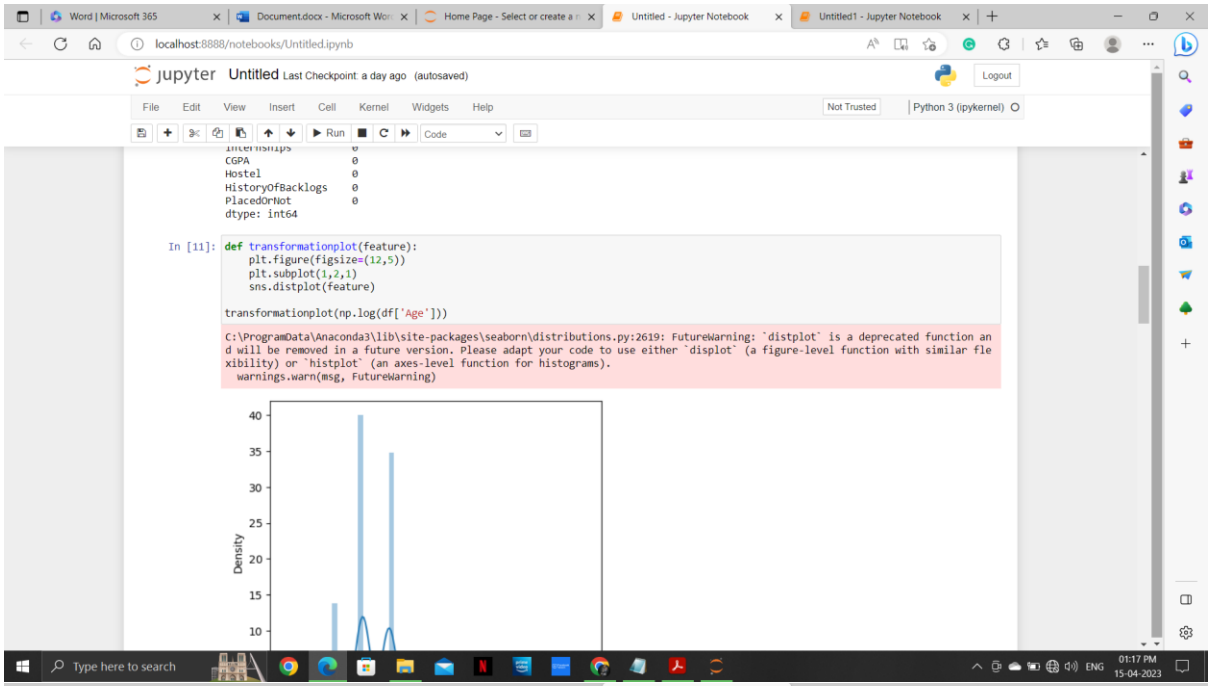
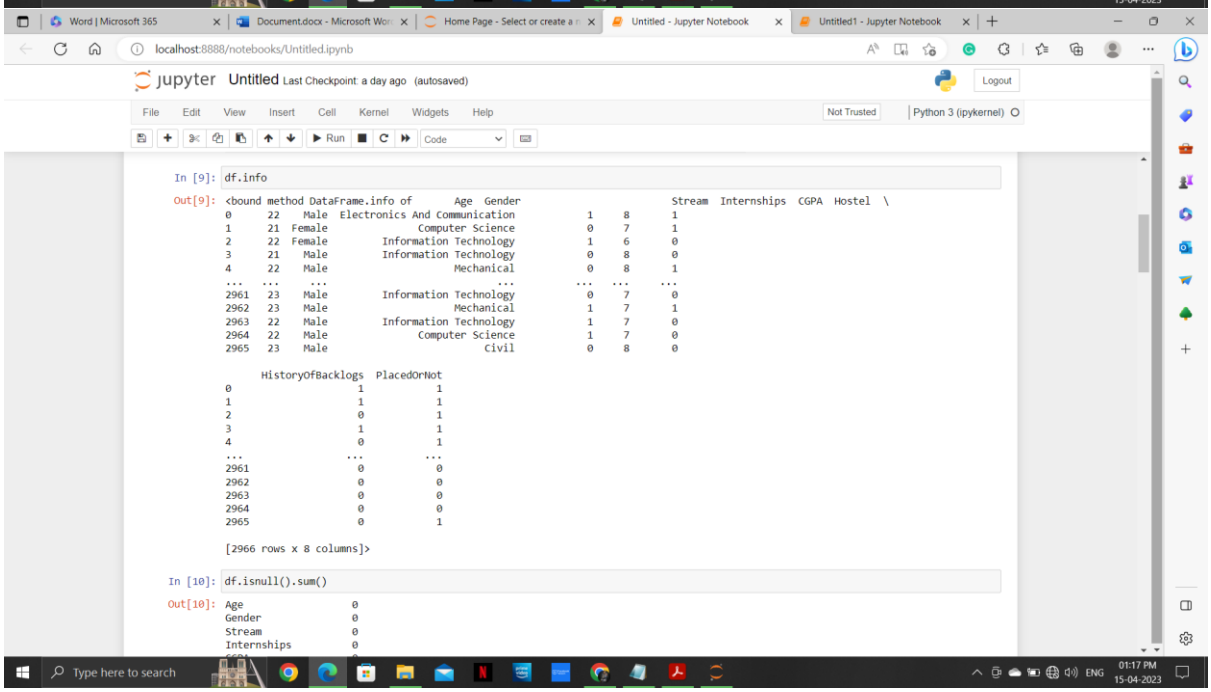


Word | Microsoft 365
Document.docx - Microsoft Word
Home Page - Select or create a n
Untitled - Jupyter Notebook
Untitled1 - Jupyter Notebook
localhost:8888/notebooks/Untitled.ipynb
jupyter Untitled Last Checkpoint: a day ago (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
In [6]:
import numpy as np
import pandas as pd
import os
In [7]:
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
In [8]:
df = pd.read_csv(r"D:\New folder\archive\collegePlace.csv")
df.head()
Out[8]:
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
In [9]:
df.info
Out[9]:
<bound method DataFrame.info of Age Gender Stream Internships CGPA Hostel \
0 22 Male Electronics And Communication 1 8 1
Type here to search
ENG
01:17 PM
15-04-2023


Word | Microsoft 365
Document.docx - Microsoft Word
Home Page - Select or create a n
Untitled - Jupyter Notebook
Untitled1 - Jupyter Notebook
localhost:8888/notebooks/Untitled.ipynb
jupyter Untitled Last Checkpoint: a day ago (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
CGPA 0
Hostel 0
HistoryOfBacklogs 0
PlacedOrNot 0
dtype: int64
In [11]:
def transformationplot(feature):
plt.figure(figsize=(12,5))
plt.subplot(1,2,1)
sns.distplot(feature)
transformationplot(np.log(df['Age']))
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
warnings.warn(msg, FutureWarning)
Density
40
35
30
25
20
15
10
Type here to search
ENG
01:17 PM
15-04-2023


Word | Microsoft 365
Document.docx - Microsoft Word
Home Page - Select or create a n
Untitled - Jupyter Notebook
Untitled1 - Jupyter Notebook
localhost:8888/notebooks/Untitled.ipynb
jupyter Untitled Last Checkpoint: a day ago (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
In [9]:
df.info
Out[9]:
<bound method DataFrame.info of Age Gender Stream Internships CGPA Hostel \
0 22 Male Electronics And Communication 1 8 1
1 21 Female Computer Science 0 7 1
2 22 Female Information Technology 1 6 0
3 21 Male Information Technology 0 8 0
4 22 Male Mechanical 0 8 1
... ...
2961 23 Male Information Technology 0 7 0
2962 23 Male Mechanical 1 7 1
2963 22 Male Information Technology 1 7 0
2964 22 Male Computer Science 1 7 0
2965 23 Male Civil 0 8 0
HistoryOfBacklogs PlacedOrNot
0 1 1
1 1 1
2 0 1
3 1 1
4 0 1
... ...
2961 0 0
2962 0 0
2963 0 0
2964 0 0
2965 0 1
[2966 rows x 8 columns]>
In [10]:
df.isnull().sum()
Out[10]:
Age 0
Gender 0
Stream 0
Internships 0
Type here to search
ENG
01:17 PM
15-04-2023

Word | Microsoft 365 | Document.docx - Microsoft Word | Home Page - Select or create a n | Untitled - Jupyter Notebook | Untitled1 - Jupyter Notebook

localhost:8888/notebooks/Untitled.ipynb

jupyter **Untitled** Last Checkpoint: a day ago (autosaved) Logout

File Edit View Insert Cell Kernel Widgets Help Not Trusted Python 3 (ipykernel)

Run Code

In [9]:
```
df.info
```

Out[9]:
```
<bound method DataFrame.info of       Age  Gender                       Stream  Internships  CGPA  Hostel  \
0      22    Male  Electronics And Communication            1     8       1
1      21  Female                Computer Science            0     7       1
2      22  Female         Information Technology            1     6       0
3      21    Male         Information Technology            0     8       0
4      22    Male                     Mechanical            0     8       1
...   ...     ...                            ...          ...   ...     ...
2961   23    Male         Information Technology            0     7       0
2962   23    Male                     Mechanical            1     7       1
2963   22    Male         Information Technology            1     7       0
2964   22    Male                Computer Science            1     7       0
2965   23    Male                           Civil            0     8       0

      HistoryOfBacklogs  PlacedOrNot
0                     1            1
1                     1            1
2                     0            1
3                     1            1
4                     0            1
...                 ...          ...
2961                  0            0
2962                  0            0
2963                  0            0
2964                  0            0
2965                  0            1

[2966 rows x 8 columns]>
```

In [10]:
```
df.isnull().sum()
```

Out[10]:
```
Age                0
Gender             0
Stream             0
Internships        0
```

Type here to search ENG 01:17 PM 15-04-2023

Word | Microsoft 365 | Document.docx - Microsoft Word | Home Page - Select or create a n | Untitled - Jupyter Notebook | Untitled1 - Jupyter Notebook

localhost:8888/notebooks/Untitled.ipynb

jupyter **Untitled** Last Checkpoint: a day ago (autosaved) Logout

File Edit View Insert Cell Kernel Widgets Help Not Trusted Python 3 (ipykernel)

Run Code

In [12]:
```
df = df.replace(['Male'],[0])
df = df.replace(['Female'],[1])
```

In [13]:
```
df = df.replace(['Computer Science','Information Technology','Electronics And Communication','Mechanical','civil'],[0,1,2,3,4])
```

In [14]:
```
df = df.drop(['Hostel'], axis=1)
```

In [15]:
```
df
```

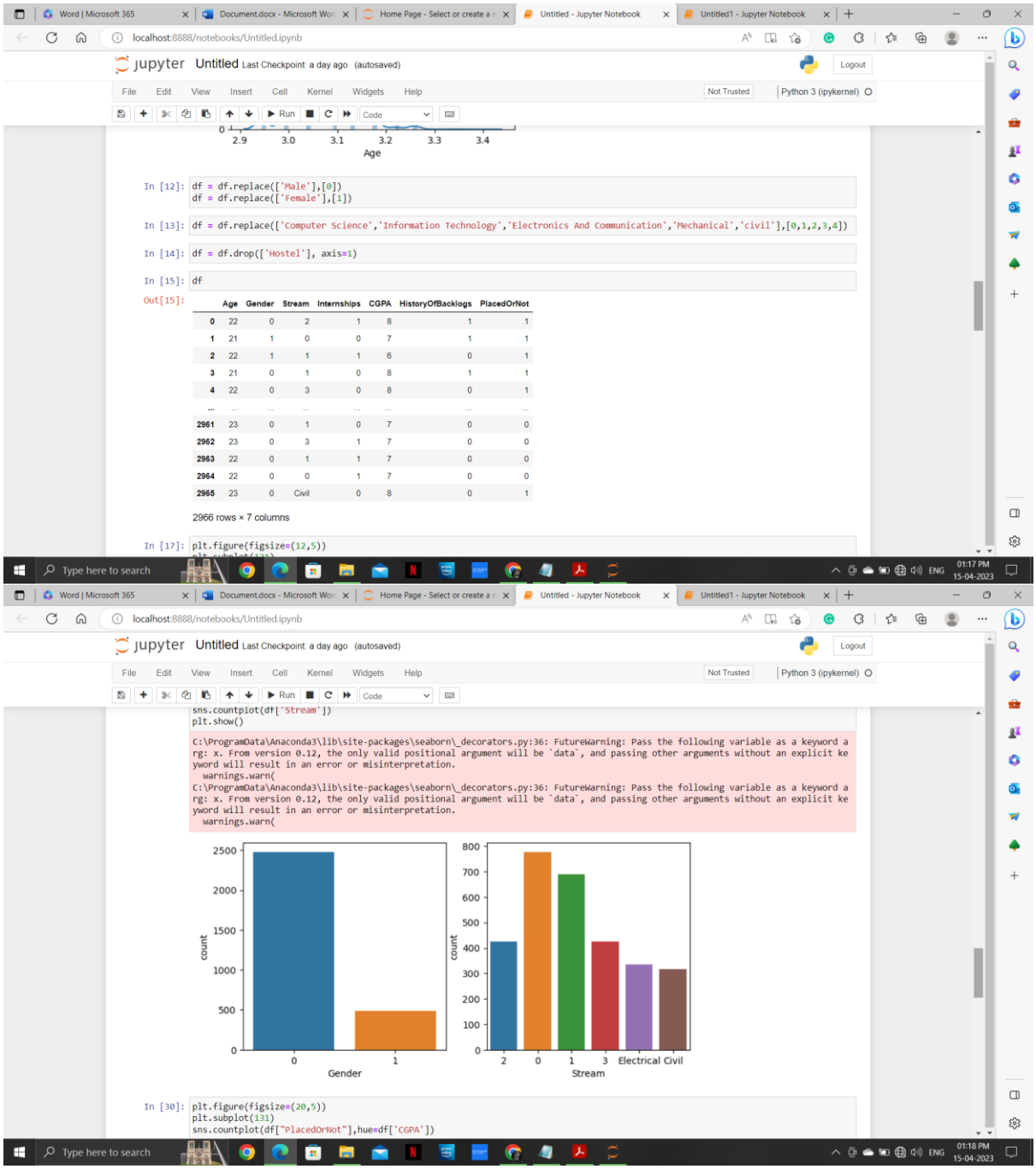
Out[15]:

	Age	Gender	Stream	Internships	CGPA	HistoryOfBacklogs	PlacedOrNot
0	22	0	2	1	8	1	1
1	21	1	0	0	7	1	1
2	22	1	1	1	6	0	1
3	21	0	1	0	8	1	1
4	22	0	3	0	8	0	1
...	...	...	...	...	...	...	...
2961	23	0	1	0	7	0	0
2962	23	0	3	1	7	0	0
2963	22	0	1	1	7	0	0
2964	22	0	0	1	7	0	0
2965	23	0	Civil	0	8	0	1

2966 rows × 7 columns

In [17]:
```
plt.figure(figsize=(12,5))
```

Type here to search ENG 01:17 PM 15-04-2023

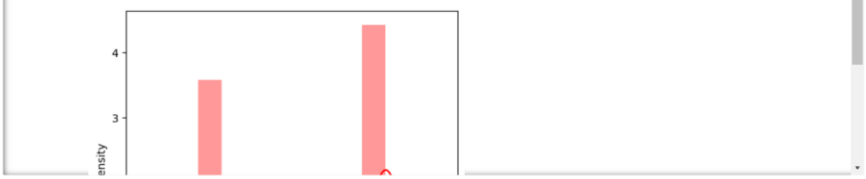

jupyter Untitled Last Checkpoint: a day ago (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
0
2.9
3.0
3.1
3.2
3.3
3.4
Age
In [12]:
df = df.replace(['Male'],[0])
df = df.replace(['Female'],[1])
In [13]:
df = df.replace(['Computer Science','Information Technology','Electronics And Communication','Mechanical','civil'],[0,1,2,3,4])
In [14]:
df = df.drop(['Hostel'], axis=1)
In [15]:
df
Out[15]:
Age Gender Stream Internships CGPA HistoryOfBacklogs PlacedOrNot
0 22 0 2 1 8 1 1
1 21 1 0 0 7 1 1
2 22 1 1 1 6 0 1
3 21 0 1 0 8 1 1
4 22 0 3 0 8 0 1
... ...
2961 23 0 1 0 7 0 0
2962 23 0 3 1 7 0 0
2963 22 0 1 1 7 0 0
2964 22 0 0 1 7 0 0
2965 23 0 Civil 0 8 0 1
2966 rows × 7 columns
In [17]:
plt.figure(figsize=(12,5))
Type here to search
ENG
01:17 PM
15-04-2023

jupyter Untitled Last Checkpoint: a day ago (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
sns.countplot(df['Stream'])
plt.show()
C:\ProgramData\Anaconda3\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:\ProgramData\Anaconda3\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(
count
Gender
Stream
Electrical
Civil
In [30]:
plt.figure(figsize=(20,5))
plt.subplot(131)
sns.countplot(df["PlacedOrNot"],hue=df['CGPA'])
Type here to search
ENG
01:18 PM
15-04-2023

```
sns.distplot(df['PlacedOrNot'],color='r')
```

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function
and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar
flexibility) or `histplot` (an axes-level function for histograms).
  warnings.warn(msg, FutureWarning)
```

Out[17]: <AxesSubplot:xlabel='PlacedOrNot', ylabel='Density'>

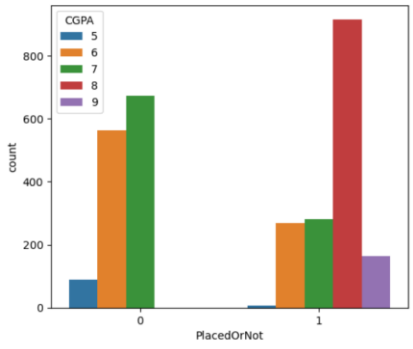


In [29]:
```
plt.figure(figsize=(18,4))
plt.subplot(1,4,1)
sns.countplot(df['Gender'])
plt.subplot(1,4,2)
sns.countplot(df['Stream'])
plt.show()
```

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variable as a keyword a
rg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit ke
yword will result in an error or misinterpretation.
  warnings.warn(
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variable as a keyword a
rg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit ke
yword will result in an error or misinterpretation.
  warnings.warn(
```

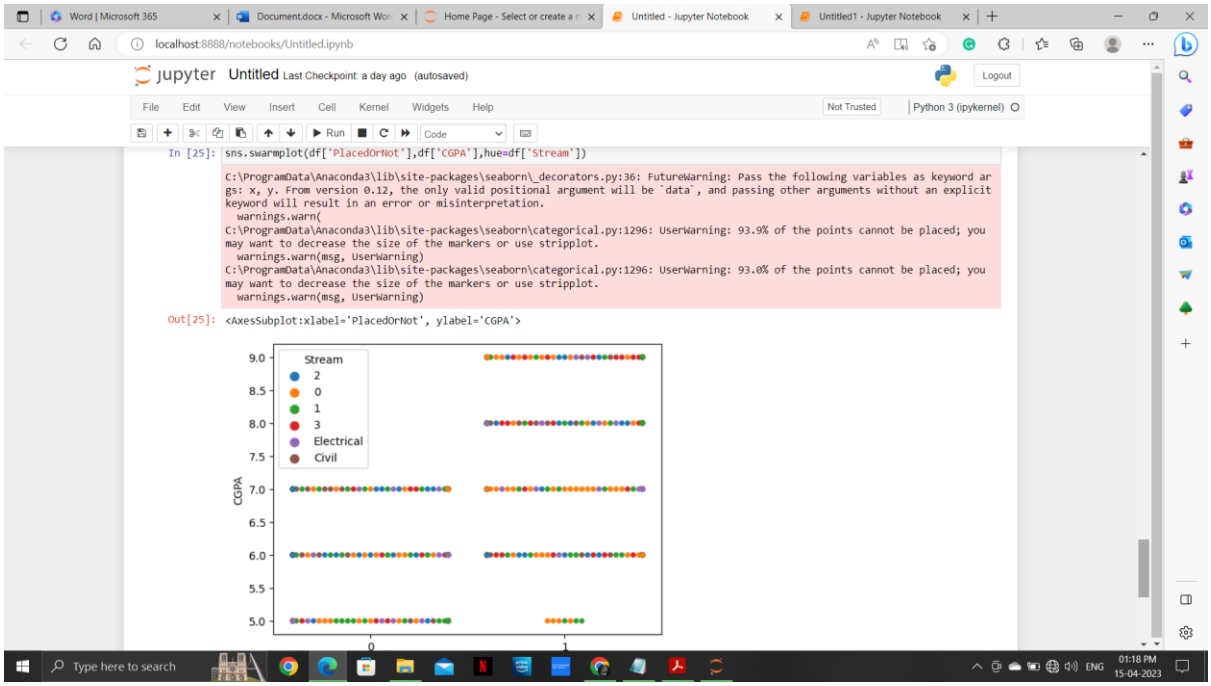
```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variable as a keyword a
rg: x. From version 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit ke
yword will result in an error or misinterpretation.
  warnings.warn(
```

Out[30]: <AxesSubplot:xlabel='PlacedOrNot', ylabel='count'>



In [25]:
```
sns.swarmplot(df['PlacedOrNot'],df['CGPA'],hue=df['Stream'])
```

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variables as keyword ar
```


Word | Microsoft 365
Document.docx - Microsoft Wor
Home Page - Select or create a n
Untitled - Jupyter Notebook
Untitled1 - Jupyter Notebook
localhost:8888/notebooks/Untitled.ipynb
jupyter Untitled Last Checkpoint: a day ago (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3 (ipykernel)
Run
Code
In [25]:
sns.swarmplot(df['PlacedOrNot'],df['CGPA'],hue=df['Stream'])
C:\ProgramData\Anaconda3\lib\site-packages\seaborn_decorators.py:36: FutureWarning: Pass the following variables as keyword args: x, y. 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:\ProgramData\Anaconda3\lib\site-packages\seaborn\categorical.py:1296: UserWarning: 93.9% of the points cannot be placed; you may want to decrease the size of the markers or use stripplot.
warnings.warn(msg, UserWarning)
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\categorical.py:1296: UserWarning: 93.0% of the points cannot be placed; you may want to decrease the size of the markers or use stripplot.
warnings.warn(msg, UserWarning)
Out[25]:
<AxesSubplot:xlabel='PlacedOrNot', ylabel='CGPA'>
Stream
2
0
1
3
Electrical
Civil
CGPA
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
0
1
Type here to search
ENG
01:18 PM
15-04-2023