

# CREATING A PLACEMENT PREDICTION USING MACHINE LEARNING:

Offered by **Smart Internz**



**TEAM ID:** LTVIP2023TMID08005

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## INTRODUCTION:

To predict the percentage of placements that are taken place by taking an Data set.

## PROJECT DESCRIPTION:

The placement prediction can be done by using machine learning with python.The main aim of this project is to show the average number of students placed.

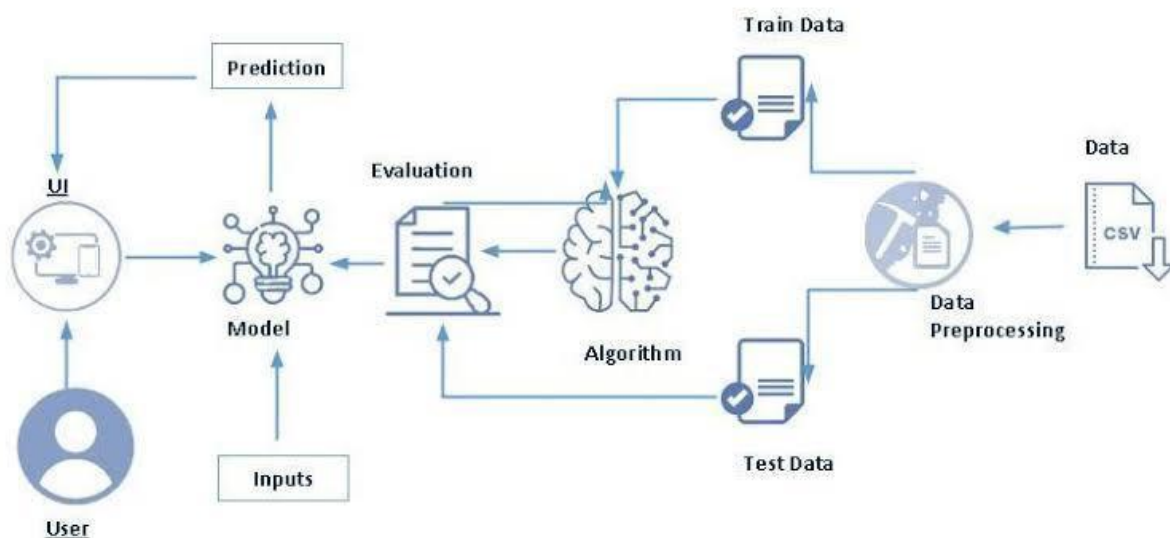
## TECHNICAL ARCHITECTURE:

## PROJECT OBJECTIVES:

By the end of this project, you will be able to:

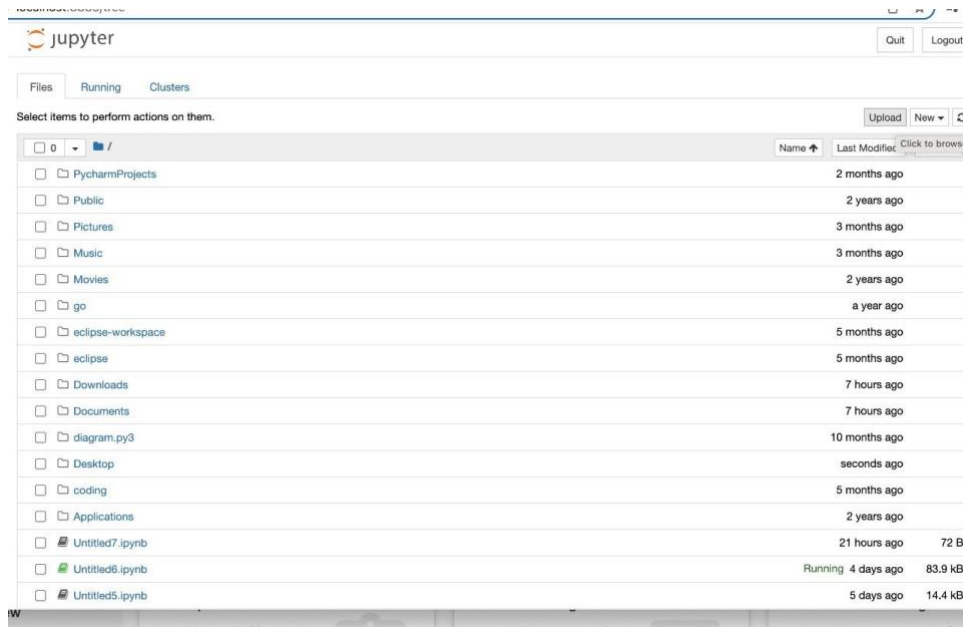
1. Creating a new notebook in jupyter
2. Obtaining model graphs,bar graphs
3. Importing all the libraries that are required.

## PROJECT FLOW:



## PROJECT STRUCTURE:

1. Open Anaconda
2. Select jupyter notebook



3. create a new notebook and upload the data set.

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Code

```
In [1]: # importing libraries
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import sklearn

In [2]: # reading a dataset
placement = pd.read_csv("Placement.csv")
```

## 4.Import the required libraries.

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Code

```
In [1]: # importing libraries
import numpy as np
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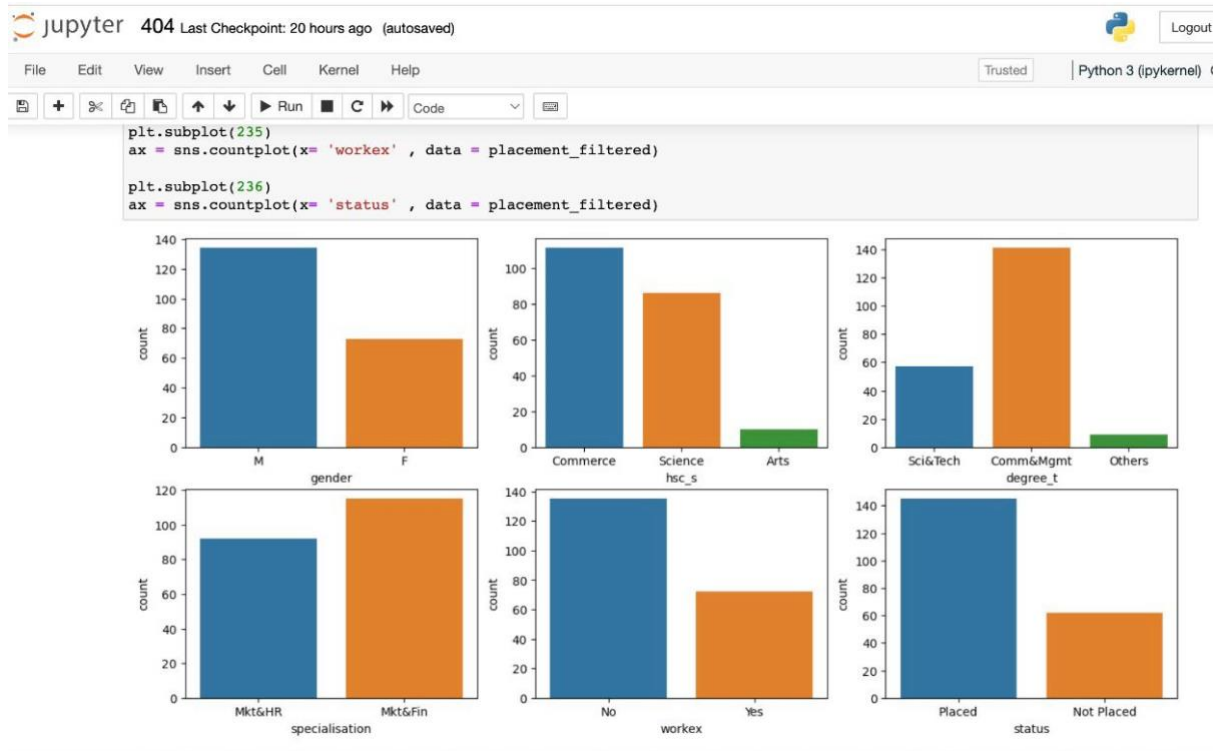
In [2]: # reading a dataset
placement = pd.read_csv("Placement.csv")

In [3]: # reading first 10 in the dataset
placement.head(10)
```

Out[3]:

	sl_no	gender	ssc_p	ssc_b	hsc_p	hsc_b	hsc_s	degree_p	degree_t	workex	etest_p	specialisation	mba_p	status	salary
0	1	M	67.00	Others	91.00	Others	Commerce	58.00	Sci&Tech	No	55.00	Mkt&HR	58.80	Placed	270000.0
1	2	M	79.33	Central	78.33	Others	Science	77.48	Sci&Tech	Yes	86.50	Mkt&Fin	66.28	Placed	200000.0
2	3	M	65.00	Central	68.00	Central	Arts	64.00	Comm&Mgmt	No	75.00	Mkt&Fin	57.80	Placed	250000.0
3	4	M	56.00	Central	52.00	Central	Science	52.00	Sci&Tech	No	66.00	Mkt&HR	59.43	Not Placed	NaN
4	5	M	85.80	Central	73.60	Central	Commerce	73.30	Comm&Mgmt	No	96.80	Mkt&Fin	55.50	Placed	425000.0
5	6	M	55.00	Others	49.80	Others	Science	67.25	Sci&Tech	Yes	55.00	Mkt&Fin	51.58	Not Placed	NaN
6	7	F	46.00	Others	49.20	Others	Commerce	79.00	Comm&Mgmt	No	74.28	Mkt&Fin	53.29	Not Placed	NaN
7	8	M	82.00	Central	64.00	Central	Science	66.00	Sci&Tech	Yes	67.00	Mkt&Fin	62.14	Placed	252000.0
8	9	M	73.00	Central	79.00	Central	Commerce	72.00	Comm&Mgmt	No	91.34	Mkt&Fin	61.29	Placed	231000.0
9	10	M	58.00	Central	70.00	Central	Commerce	61.00	Comm&Mgmt	No	54.00	Mkt&Fin	52.21	Not Placed	NaN

## 5. Obtain all the model graphs and bar graphs



## 6. Using regression method predict the placement percentage


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Trusted

Python 3 (ipykernel)

       Run    Code 

```
y_pred = logreg.predict(X_test)
print(logreg.score(X_test , y_test))
0.8333333333333334
```

```
In [26]: # using decision tree classifier to print the accuracy of the placement
from sklearn.tree import DecisionTreeClassifier

dt = DecisionTreeClassifier(criterion = 'gini' , max_depth = 3)

dt = dt.fit(X_train , y_train)
y_pred = dt.predict(X_test)

print("Accuracy", metrics.accuracy_score(y_test , y_pred))

Accuracy 0.7380952380952381
```

## PROJECT OUTCOME:


ocalhost:8889/notebooks/404.ipynb#

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Trusted

Python 3 (ipykernel)

       Run    Code 

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dt = dt.fit(X_train , y_train)
y_pred = dt.predict(X_test)

print("Accuracy", metrics.accuracy_score(y_test , y_pred))

Accuracy 0.7380952380952381
```

```
In [27]: #using random forest classifier to print the classifier
from sklearn.ensemble import RandomForestClassifier

rt = RandomForestClassifier(n_estimators = 100)

rt.fit(X_train , y_train)
y_pred = rt.predict(X_test)

print("Accuracy", metrics.accuracy_score(y_test , y_pred))

Accuracy 0.7857142857142857
```

```
In [28]: # here the placement prediction is done by showing all the model graphs, bar graphs , and also by using the regressions
```

**CONCLUSION:**

**The placement prediction done through machine learning with python has been executed.**

**GITHUB LINK:**

**<https://github.com/CodeWeb2003/PlacementPrediction>**