```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.metrics import confusion_matrix , classification_report
```

```
data=pd.read_csv('Placement.csv')
```

```
data
```

	sl_no	gender	ssc_p	ssc_b	hsc_p	hsc_b	hsc_s	degree_p	degree_t	workex	etest_p	specialisation	mba_p	sta
0	1	M	67.00	Others	91.00	Others	Commerce	58.00	Sci&Tech	No	55.0	Mkt&HR	58.80	Pla
1	2	M	79.33	Central	78.33	Others	Science	77.48	Sci&Tech	Yes	86.5	Mkt&Fin	66.28	Pla
2	3	M	65.00	Central	68.00	Central	Arts	64.00	Comm&Mgmt	No	75.0	Mkt&Fin	57.80	Pla
3	4	M	56.00	Central	52.00	Central	Science	52.00	Sci&Tech	No	66.0	Mkt&HR	59.43	Pla
4	5	M	85.80	Central	73.60	Central	Commerce	73.30	Comm&Mgmt	No	96.8	Mkt&Fin	55.50	Pla
...	...	...	...	...	...	...	...	...	...	...	...	...	...	
210	211	M	80.60	Others	82.00	Others	Commerce	77.60	Comm&Mgmt	No	91.0	Mkt&Fin	74.49	Pla
211	212	M	58.00	Others	60.00	Others	Science	72.00	Sci&Tech	No	74.0	Mkt&Fin	53.62	Pla
212	213	M	67.00	Others	67.00	Others	Commerce	73.00	Comm&Mgmt	Yes	59.0	Mkt&Fin	69.72	Pla
213	214	F	74.00	Others	66.00	Others	Commerce	58.00	Comm&Mgmt	No	70.0	Mkt&HR	60.23	Pla
214	215	M	62.00	Central	58.00	Others	Science	53.00	Comm&Mgmt	No	89.0	Mkt&HR	60.22	Pla

```
data.head()
```

	sl_no	gender	ssc_p	ssc_b	hsc_p	hsc_b	hsc_s	degree_p	degree_t	workex	etest_p	specialisation	mba_p	statu
0	1	M	67.00	Others	91.00	Others	Commerce	58.00	Sci&Tech	No	55.0	Mkt&HR	58.80	Place
1	2	M	79.33	Central	78.33	Others	Science	77.48	Sci&Tech	Yes	86.5	Mkt&Fin	66.28	Place
2	3	M	65.00	Central	68.00	Central	Arts	64.00	Comm&Mgmt	No	75.0	Mkt&Fin	57.80	Place
3	4	M	56.00	Central	52.00	Central	Science	52.00	Sci&Tech	No	66.0	Mkt&HR	59.43	No Place
4	5	M	85.80	Central	73.60	Central	Commerce	73.30	Comm&Mgmt	No	96.8	Mkt&Fin	55.50	Place

```
print(data.columns.values)
```

```
['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']
```

```
print(data.columns)
```

```
Index(['gender', 'ssc_p', 'ssc_b', 'hsc_p', 'hsc_b', 'hsc_s', 'degree_p',
       'degree_t', 'workex', 'etest_p', 'specialisation', 'mba_p', 'status'],
      dtype='object')
```

```
print('='*50)
print("DESCRIBE DATA")
print('='*50)
print(data.describe())
```

```
==================================================
DESCRIBE DATA
==================================================
            ssc_p       hsc_p    degree_p     etest_p       mba_p
count  215.000000  215.000000  215.000000  215.000000  215.000000
mean    67.303395   66.333163   66.370186   72.100558   62.278186
std     10.827205   10.897509    7.358743   13.275956    5.833385
min     40.890000   37.000000   50.000000   50.000000   51.210000
25%     60.600000   60.900000   61.000000   60.000000   57.945000
50%     67.000000   65.000000   66.000000   71.000000   62.000000
75%     75.700000   73.000000   72.000000   83.500000   66.255000
max     89.400000   97.700000   91.000000   98.000000   77.890000
```

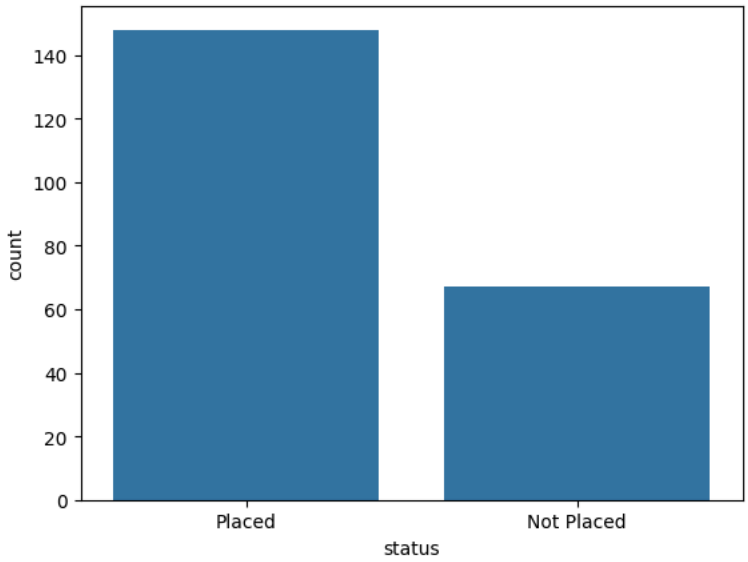
```
data=data.drop(['sl_no'],axis=1)
```

```
---------------------------------------------------------------------------
KeyError                                  Traceback (most recent call last)
<ipython-input-30-35c7acf87255> in <cell line: 0>()
----> 1 data=data.drop(['sl_no'],axis=1)

3 frames
/usr/local/lib/python3.11/dist-packages/pandas/core/indexes/base.py in drop(self, labels, errors)
   7068         if mask.any():
   7069             if errors != "ignore":
-> 7070                 raise KeyError(f"{labels[mask].tolist()} not found in axis")
   7071             indexer = indexer[~mask]
   7072         return self.delete(indexer)

KeyError: "['sl_no'] not found in axis"
```

Exploring important features

```
sns.countplot(data=data,x=data['status'])
```

```
<Axes: xlabel='status', ylabel='count'>
```




```
data['gender'].value_counts()
```

gender	count
M	139
F	76

dtype: int64

```
df = data.groupby(['gender', 'status'])['status'].count()
df
```

gender	status	status
F	Not Placed	28
	Placed	48
M	Not Placed	39
	Placed	100

dtype: int64

Start coding or generate with AI.