

21053250

February 23, 2024

```
[1]: # Load the data to data Frame using pandas[10 Marks]

# a) Display total number of Kidnapping and Abduction happened in Maharashtra
↳state.

# b) Display total number of Kidnapping and Abduction happened in Maharashtra
↳state of RAIGAD district.

# c) Display the heat map of 7 column(Rape', 'Kidnapping and Abduction', 'Dowry
↳Deaths', 'Assault on women with intent to outrage her modesty', 'Insult to
↳modesty of Women', 'Cruelty by Husband or his Relatives', 'Importation of
↳Girls').

# d) Display the bar plot 'Dowry Deaths' from 2001 to 2012 in India.

# e) Display the bar plot 'Dowry Deaths' from 2001 to 2012 in state of west
↳Bengal.
```

```
[2]: import numpy as np
```

```
[5]: import pandas as pd
```

```
[6]: df=pd.read_csv('india-crime.csv')
```

```
[7]: df
```

```
[7]:
```

	STATE/UT	DISTRICT	Year	Rape	Kidnapping and Abduction	\
0	ANDHRA PRADESH	ADILABAD	2001	50		30
1	ANDHRA PRADESH	ANANTAPUR	2001	23		30
2	ANDHRA PRADESH	CHITTOOR	2001	27		34
3	ANDHRA PRADESH	CUDDAPAH	2001	20		20
4	ANDHRA PRADESH	EAST GODAVARI	2001	23		26
...	...	...	...	...		...
9012	LAKSHADWEEP	LAKSHADWEEP	2012	0		0
9013	LAKSHADWEEP	TOTAL	2012	0		0
9014	PUDUCHERRY	KARAIKAL	2012	6		2
9015	PUDUCHERRY	PUDUCHERRY	2012	7		14
9016	PUDUCHERRY	TOTAL	2012	13		16

	Dowry Deaths	Assault on women with intent to outrage her modesty \
0	16	149
1	7	118
2	14	112
3	17	126
4	12	109
...	...	...
9012	0	1
9013	0	1
9014	0	2
9015	0	7
9016	0	9

	Insult to modesty of Women	Cruelty by Husband or his Relatives \
0	34	175
1	24	154
2	83	186
3	38	57
4	58	247
...	...	...
9012	0	1
9013	0	1
9014	0	1
9015	2	5
9016	2	6

	Importation of Girls
0	0
1	0
2	0
3	0
4	0
...	...
9012	0
9013	0
9014	0
9015	0
9016	0

[9017 rows x 10 columns]

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

```
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 9017 entries, 0 to 9016
```

```
Data columns (total 10 columns):
```

```
#    Column
```

```
Non-Null Count  Dtype
```

0	STATE/UT	9017 non-null	object
1	DISTRICT	9017 non-null	object
2	Year	9017 non-null	int64
3	Rape	9017 non-null	int64
4	Kidnapping and Abduction	9017 non-null	int64
5	Dowry Deaths	9017 non-null	int64
6	Assault on women with intent to outrage her modesty	9017 non-null	int64
7	Insult to modesty of Women	9017 non-null	int64
8	Cruelty by Husband or his Relatives	9017 non-null	int64
9	Importation of Girls	9017 non-null	int64

dtypes: int64(8), object(2)  
memory usage: 704.6+ KB

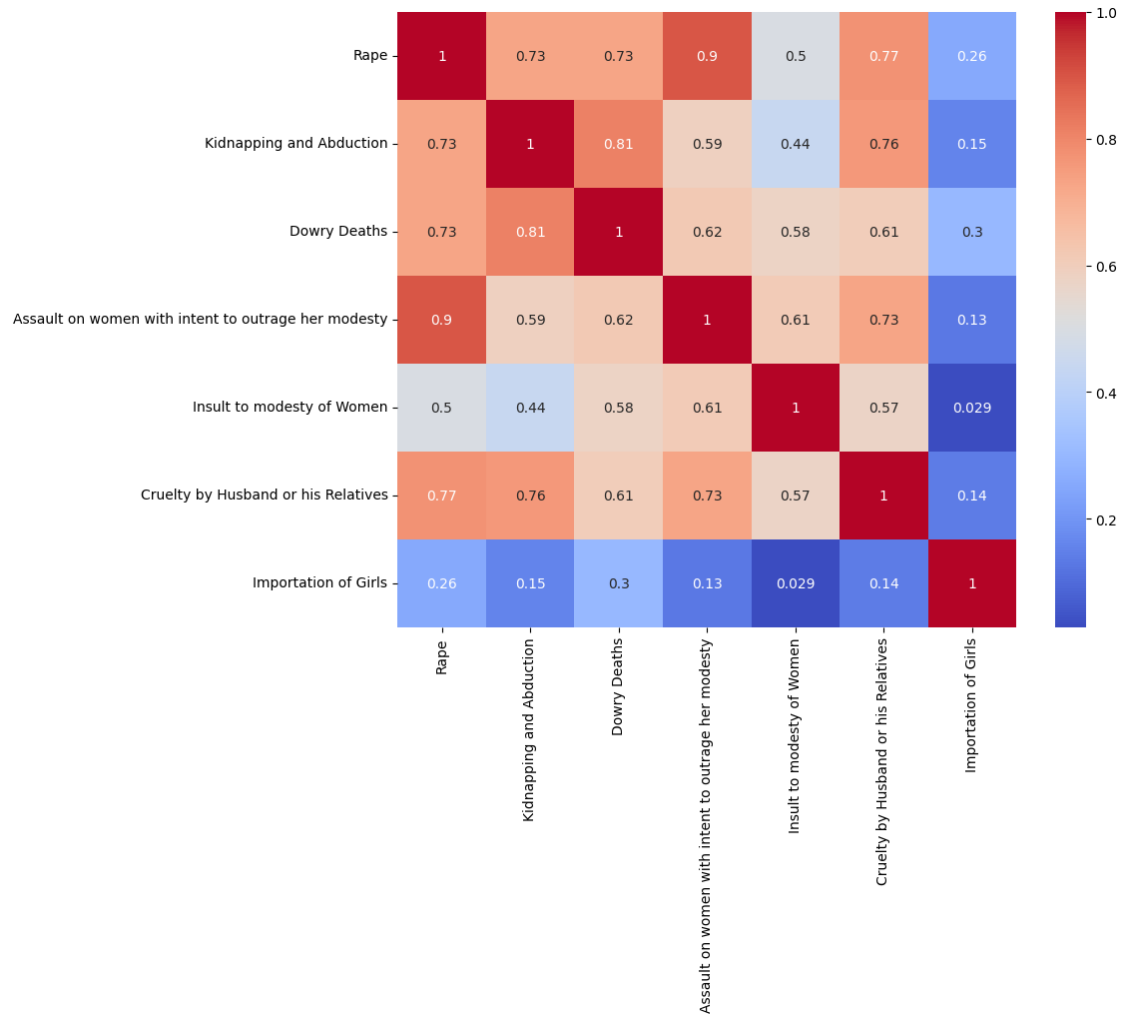
```
[10]: # a) Display total number of Kidnapping and Abduction happened in Maharashtra
      ↪state.
      mdf=df[df['STATE/UT']=='MAHARASHTRA']
      print(mdf['Kidnapping and Abduction'].sum())
```

21706

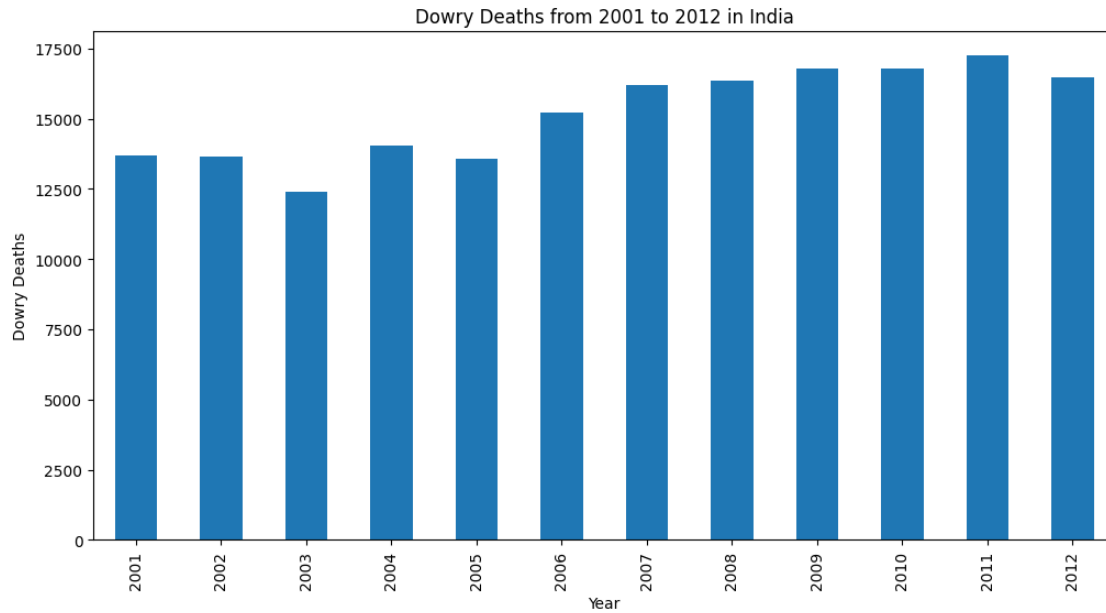
```
[11]: # b) Display total number of Kidnapping and Abduction happened in Maharashtra
      ↪state of RAIGAD district.
      print(mdf[mdf['DISTRICT']=='RAIGAD']['Kidnapping and Abduction'].sum())
```

80

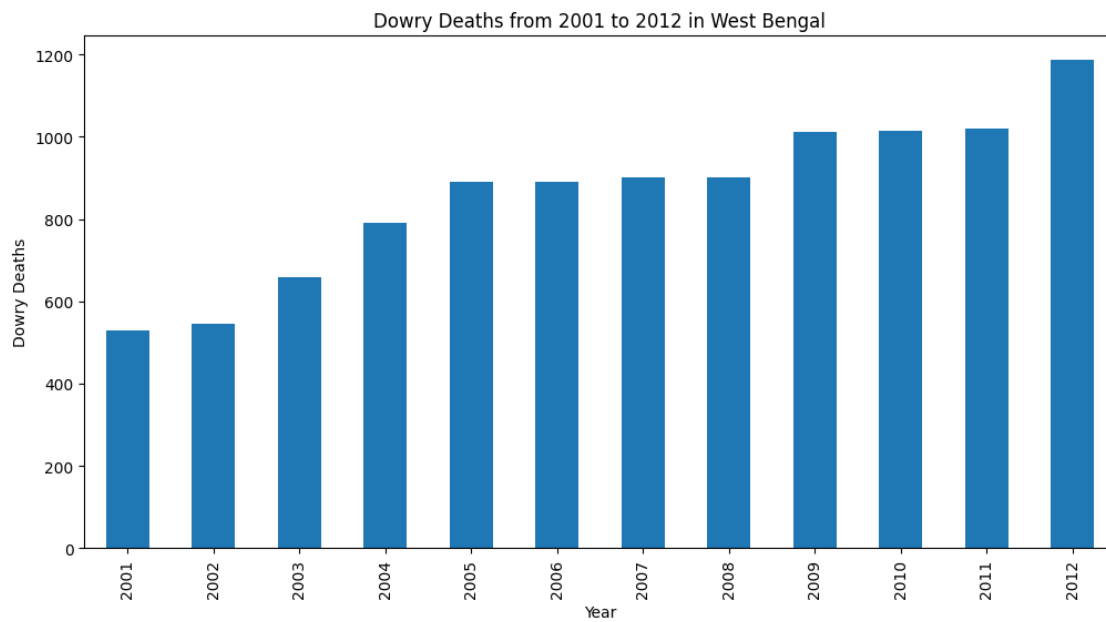
```
[14]: # c) Display the heat map of 7 column(Rape', 'Kidnapping and Abduction', 'Dowry
      ↪Deaths', 'Assault on women with intent to outrage her modesty', 'Insult to
      ↪modesty of Women', 'Cruelty by Husband or his Relatives', 'Importation of
      ↪Girls').
      import matplotlib.pyplot as plt
      import seaborn as sns
      plt.figure(figsize=(10,8))
      sns.heatmap(df[['Rape','Kidnapping and Abduction','Dowry Deaths','Assault on
      ↪women with intent to outrage her modesty','Insult to modesty of
      ↪Women','Cruelty by Husband or his Relatives','Importation of Girls']]).
      ↪corr(),annot=True,cmap='coolwarm')
      plt.show()
```



```
[18]: # d) Display the bar plot 'Dowry Deaths' from 2001 to 2012 in India.
ddi=df[(df['Year']>=2001)&(df['Year']<=2012)].groupby('Year')['Dowry Deaths'].
      ↪sum()
ddi.plot(kind='bar',figsize=(12,6))
plt.ylabel('Dowry Deaths')
plt.title('Dowry Deaths from 2001 to 2012 in India')
plt.show()
```



```
[20]: # e) Display the bar plot 'Dowry Deaths' from 2001 to 2012 in state of west Bengal.
ddwb = df[df['STATE/UT'] == 'WEST BENGAL'].groupby('Year')['Dowry Deaths'].sum()
ddwb.plot(kind='bar', figsize=(12,6))
plt.ylabel('Dowry Deaths')
plt.title('Dowry Deaths from 2001 to 2012 in West Bengal')
plt.show()
```



[ ]: