```
In [1]: import pandas as p
    import numpy as n
    import matplotlib.pyplot as plt
    "%matplotlib inline"
    import seaborn as s
    import warnings
    warnings.filterwarnings("ignore")
    import matplotlib.pyplot as plt
```

## Out[2]:

	EmpNumber	Age	Gender	EducationBackground	MaritalStatus	EmpDepartment	EmpJobRole
0	E1001007	40	Male	Life Sciences	Married	Sales	Sales Executive
1	E1001025	30	Male	Marketing	Divorced	Sales	Sales Executive
2	E1001054	52	Male	Marketing	Married	Sales	Manager
3	E1001059	25	Female	Medical	Single	Sales	Sales Executive
4	E1001064	34	Male	Other	Single	Sales	Sales Executive
81	E100724	33	Male	Marketing	Single	Sales	Sales Executive
82	E100891	31	Male	Life Sciences	Divorced	Sales	Manager
83	E100985	25	Male	Life Sciences	Married	Sales	Sales Executive
84	E100987	38	Female	Marketing	Single	Sales	Sales Executive
85	E100992	27	Female	Medical	Divorced	Sales	Sales Executive

86 rows × 28 columns

In [3]: data.describe()

## Out[3]:

	Age	DistanceFromHome	EmpEducationLevel	EmpEnvironmentSatisfaction	EmpHourly
count	86.000000	86.000000	86.000000	86.000000	86.000
mean	37.209302	8.918605	2.906977	3.151163	65.02
std	9.577076	8.569735	1.047438	0.926949	20.84
min	18.000000	1.000000	1.000000	1.000000	30.000
25%	31.000000	2.000000	2.000000	3.000000	46.000
50%	37.000000	6.500000	3.000000	3.000000	67.500
75%	43.000000	12.000000	4.000000	4.000000	79.000
max	60.000000	29.000000	5.000000	4.000000	100.000

## In [4]: data.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 86 entries, 0 to 85
Data columns (total 28 columns):

#	Column	Non-Null Count	Dtype
		96 non null	
0	EmpNumber	86 non-null	object
1	Age	86 non-null	int64
2	Gender	86 non-null	object
3	EducationBackground	86 non-null	object
4	MaritalStatus	86 non-null	object
5	EmpDepartment	86 non-null	object
6	EmpJobRole	86 non-null	object
7	BusinessTravelFrequency	86 non-null	object
8	DistanceFromHome	86 non-null	int64
9	EmpEducationLevel	86 non-null	int64
10	EmpEnvironmentSatisfaction	86 non-null	int64
11	EmpHourlyRate	86 non-null	int64
12	EmpJobInvolvement	86 non-null	int64
13	EmpJobLevel	86 non-null	int64
14	EmpJobSatisfaction	86 non-null	int64
<b>1</b> 5	NumCompaniesWorked	86 non-null	int64
16	OverTime	86 non-null	object
17	EmpLastSalaryHikePercent	86 non-null	int64
18	EmpRelationshipSatisfaction	86 non-null	int64
19	TotalWorkExperienceInYears	86 non-null	int64
20	TrainingTimesLastYear	86 non-null	int64
21	EmpWorkLifeBalance	86 non-null	int64
22	ExperienceYearsAtThisCompany	86 non-null	int64
23	ExperienceYearsInCurrentRole	86 non-null	int64
24	YearsSinceLastPromotion	86 non-null	int64
25	YearsWithCurrManager	86 non-null	int64
26	Attrition	86 non-null	object
27	PerformanceRating	86 non-null	int64
dtype	es: int64(19), object(9)		
	nv. ucago: 19 0 L VP		

memory usage: 18.9+ KB

```
In [5]: data.shape
```

Out[5]: (86, 28)

In [6]: data.head()

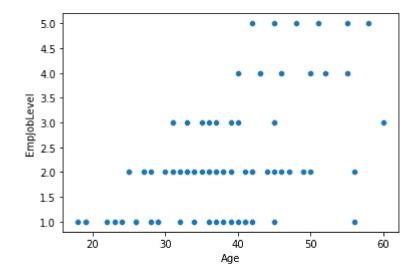
Out[6]:

	EmpNumber	Age	Gender	EducationBackground	MaritalStatus	EmpDepartment	EmpJobRole
0	E1001007	40	Male	Life Sciences	Married	Sales	Sales Executive
1	E1001025	30	Male	Marketing	Divorced	Sales	Sales Executive
2	E1001054	52	Male	Marketing	Married	Sales	Manager
3	E1001059	25	Female	Medical	Single	Sales	Sales Executive
4	E1001064	34	Male	Other	Single	Sales	Sales Executive

5 rows × 28 columns

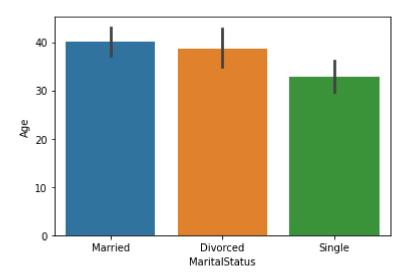
In [7]: s.scatterplot(data=data,x="Age",y='EmpJobLevel')

Out[7]: <AxesSubplot:xlabel='Age', ylabel='EmpJobLevel'>



In [8]: s.barplot(data=data,x='MaritalStatus',y='Age')

Out[8]: <AxesSubplot:xlabel='MaritalStatus', ylabel='Age'>



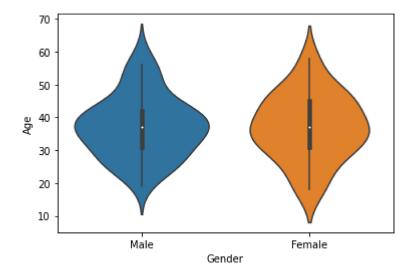
In [9]: s.histplot(data=data,x='EmpDepartment',y='EmpJobRole',hue='EducationBackground')

Out[9]: <AxesSubplot:xlabel='EmpDepartment', ylabel='EmpJobRole'>



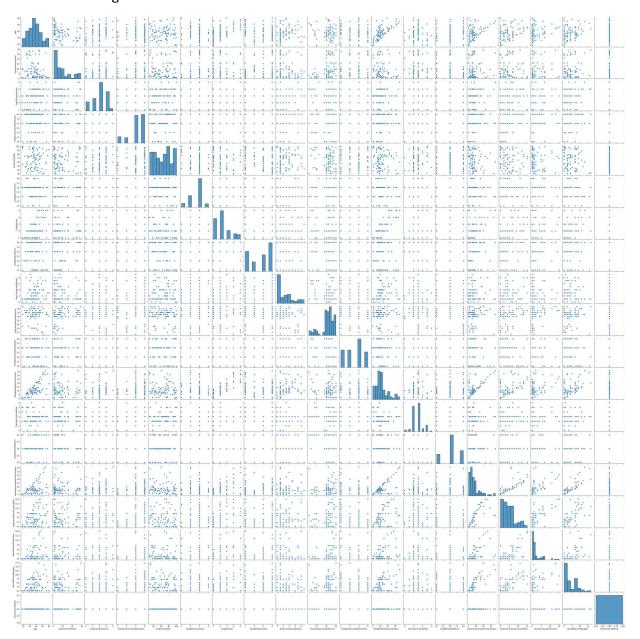
In [10]: s.violinplot(data=data,x='Gender',y='Age',orient="v")

Out[10]: <AxesSubplot:xlabel='Gender', ylabel='Age'>



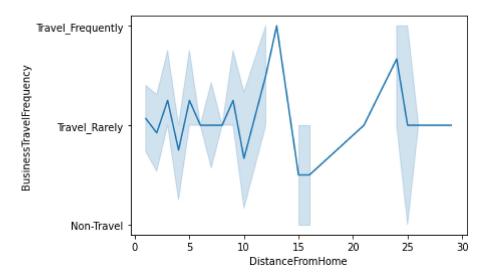
In [11]: s.pairplot(data)

Out[11]: <seaborn.axisgrid.PairGrid at 0x2d273e68a60>



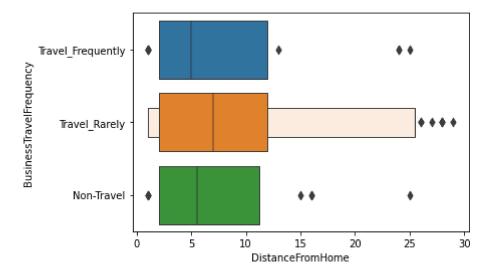
In [12]: s.lineplot(data=data,x='DistanceFromHome',y='BusinessTravelFrequency')

Out[12]: <AxesSubplot:xlabel='DistanceFromHome', ylabel='BusinessTravelFrequency'>



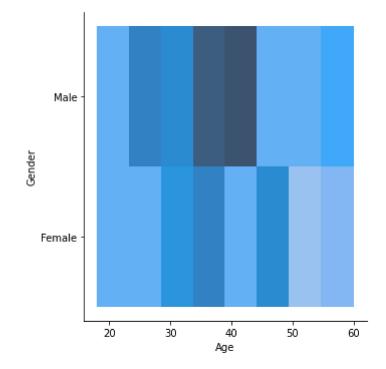
In [13]: s.boxenplot(data=data,x='DistanceFromHome',y='BusinessTravelFrequency',orient='h

Out[13]: <AxesSubplot:xlabel='DistanceFromHome', ylabel='BusinessTravelFrequency'>



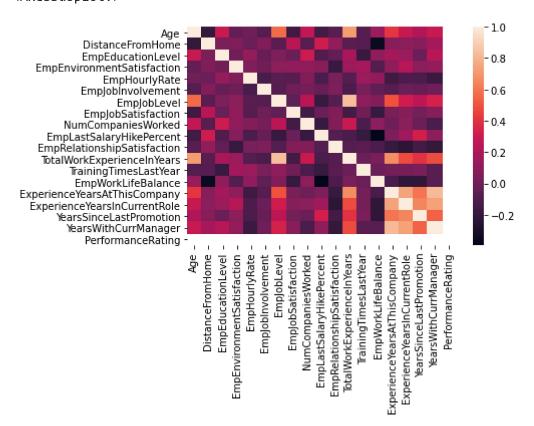
In [14]: s.displot(data=data,x='Age',y='Gender')

Out[14]: <seaborn.axisgrid.FacetGrid at 0x2d202b9d7f0>



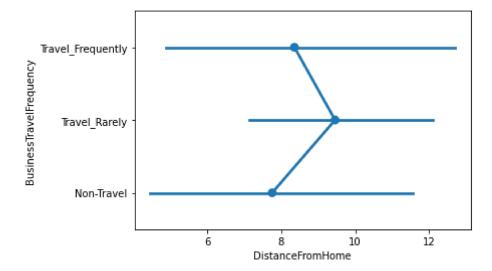
In [15]: | s.heatmap(data=data.corr())

## Out[15]: <AxesSubplot:>



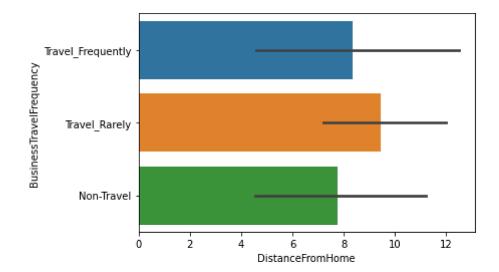
In [16]: s.pointplot(data=data,x='DistanceFromHome',y='BusinessTravelFrequency')

Out[16]: <AxesSubplot:xlabel='DistanceFromHome', ylabel='BusinessTravelFrequency'>



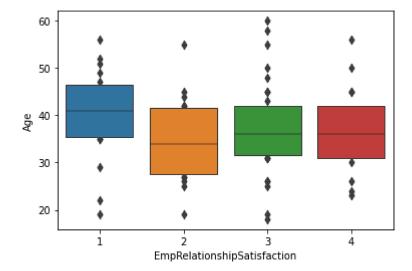
In [17]: s.barplot(data=data,x='DistanceFromHome',y='BusinessTravelFrequency')

Out[17]: <AxesSubplot:xlabel='DistanceFromHome', ylabel='BusinessTravelFrequency'>



In [19]: s.boxenplot(data=data,x='EmpRelationshipSatisfaction',y='Age')

Out[19]: <AxesSubplot:xlabel='EmpRelationshipSatisfaction', ylabel='Age'>



In [ ]: