```
# Import The Standard Libraries
import pandas as pd
import numpy as np
```

```
# Load the Data using pandas read function
df=pd.read_csv("/content/drive/MyDrive/Data Analysis End to End Projects/Sleep_Health_and_lifestyle/Data Sets/Sleep_health_and_lifestyle_
df.head()
```

	Person ID	Gender	Age	Occupation	Sleep Duration	Quality of Sleep	Physical Activity Level	Stress Level	BMI Category	Blood Pressure	Heart Rate	Daily Steps	Sleep Disorder
0	1	Male	27	Software Engineer	6.1	6	42	6	Overweight	126/83	77	4200	None
1	2	Male	28	Doctor	6.2	6	60	8	Normal	125/80	75	10000	None
2	3	Male	28	Doctor	6.2	6	60	8	Normal	125/80	75	10000	None
3	4	Male	28	Sales Representative	5.9	4	30	8	Obese	140/90	85	3000	Sleep Apnea
4	5	Male	28	Sales Representative	5.9	4	30	8	Obese	140/90	85	3000	Sleep Apnea

```
# Exploring the Data Set
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 374 entries, 0 to 373
Data columns (total 13 columns):
 #   Column                   Non-Null Count  Dtype  
---  ------                   --------------  -----  
 0   Person ID                374 non-null    int64  
 1   Gender                   374 non-null    object 
 2   Age                      374 non-null    int64  
 3   Occupation               374 non-null    object 
 4   Sleep Duration           374 non-null    float64
 5   Quality of Sleep         374 non-null    int64  
 6   Physical Activity Level  374 non-null    int64  
 7   Stress Level             374 non-null    int64  
 8   BMI Category             374 non-null    object 
 9   Blood Pressure           374 non-null    object 
 10  Heart Rate               374 non-null    int64  
 11  Daily Steps              374 non-null    int64  
 12  Sleep Disorder           374 non-null    object 
dtypes: float64(1), int64(7), object(5)
memory usage: 38.1+ KB
```

```
# Exploring the Data Set
df.describe()
```

	Person ID	Age	Sleep Duration	Quality of Sleep	Physical Activity Level	Stress Level	Heart Rate	Daily Steps
count	374.000000	374.000000	374.000000	374.000000	374.000000	374.000000	374.000000	374.000000
mean	187.500000	42.184492	7.132086	7.312834	59.171123	5.385027	70.165775	6816.844920
std	108.108742	8.673133	0.795657	1.196956	20.830804	1.774526	4.135676	1617.915679
min	1.000000	27.000000	5.800000	4.000000	30.000000	3.000000	65.000000	3000.000000
25%	94.250000	35.250000	6.400000	6.000000	45.000000	4.000000	68.000000	5600.000000
50%	187.500000	43.000000	7.200000	7.000000	60.000000	5.000000	70.000000	7000.000000
75%	280.750000	50.000000	7.800000	8.000000	75.000000	7.000000	72.000000	8000.000000
max	374.000000	59.000000	8.500000	9.000000	90.000000	8.000000	86.000000	10000.000000

```
# Dropping the unnecessary columns
df=df.drop(["Person ID"],axis=1)
df
```

	Gender	Age	Occupation	Sleep Duration	Quality of Sleep	Physical Activity Level	Stress Level	BMI Category	Blood Pressure	Heart Rate	Daily Steps	Sleep Disorder
0	Male	27	Software Engineer	6.1	6	42	6	Overweight	126/83	77	4200	None
1	Male	28	Doctor	6.2	6	60	8	Normal	125/80	75	10000	None
2	Male	28	Doctor	6.2	6	60	8	Normal	125/80	75	10000	None
3	Male	28	Sales Representative	5.9	4	30	8	Obese	140/90	85	3000	Sleep Apnea
4	Male	28	Sales Representative	5.9	4	30	8	Obese	140/90	85	3000	Sleep Apnea
...	...	...	...	...	...	...	...	...	...	...	...	...

```
#Checking the Null Values
df.isna().sum()
```

```
Gender                    0
Age                       0
Occupation                0
Sleep Duration            0
Quality of Sleep          0
Physical Activity Level   0
Stress Level              0
BMI Category              0
Blood Pressure            0
Heart Rate                0
Daily Steps               0
Sleep Disorder            0
dtype: int64
```

The Data set has not any null values, and we remove the unnecessary columns. Hence our Data Set is ready for the further analysis:

```
# Saving our Data set for further Analysis
df.to_csv("/content/drive/MyDrive/Data Analysis End to End Projects/Sleep_Health_and_lifestyle/Sleep_Health_and_Lifestyle.csv")
```

Questions Asked For the Data Analysis:

1. Sleep Disorder Percentage.
2. Gender Percentage in the Data using a pie chart.
3. Distribution of Age using Histogram.
4. Determine the Highest occupation in the Data Set.
5. Analyze the distriibution of the Sleep duration based on Gender.
6. Visualize the average sleep duration across different occupations using a bar chart.
7. Explore the relationship betn average sleep duration and BMI category.
8. Identify the Dominent occupation within the Male Category.
9. Find the Average Heart with the BMI category.