```
import matplotlib.pyplot as plt
import pandas as pd
```

```
df=pd.read_csv(r"C:\Users\Admin\Desktop\Datasets\Heart.csv",sep=',')
df
```

| | Unnamed: 0 | Age | Sex | ChestPain | RestBP | Chol | Fbs | RestECG | MaxHR | ExAng | Oldpeak |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 63 | 1 | typical | 145 | 233 | 1 | 2 | 150 | 0 | 2.3 |
| 1 | 2 | 67 | 1 | asymptomatic | 160 | 286 | 0 | 2 | 108 | 1 | 1.5 |
| 2 | 3 | 67 | 1 | asymptomatic | 120 | 229 | 0 | 2 | 129 | 1 | 2.6 |
| 3 | 4 | 37 | 1 | nonanginal | 130 | 250 | 0 | 0 | 187 | 0 | 3.5 |
| 4 | 5 | 41 | 0 | nontypical | 130 | 204 | 0 | 2 | 172 | 0 | 1.4 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 298 | 299 | 45 | 1 | typical | 110 | 264 | 0 | 0 | 132 | 0 | 1.2 |
| 299 | 300 | 68 | 1 | asymptomatic | 144 | 193 | 1 | 0 | 141 | 0 | 3.4 |
| 300 | 301 | 57 | 1 | asymptomatic | 130 | 131 | 0 | 0 | 115 | 1 | 1.2 |
| 301 | 302 | 57 | 0 | nontypical | 130 | 236 | 0 | 2 | 174 | 0 | 0.0 |
| 302 | 303 | 38 | 1 | nonanginal | 138 | 175 | 0 | 0 | 173 | 0 | 0.0 |

```
#LINEPLOT using MATPLOTLIB
df.set_index('RestBP').plot()
```

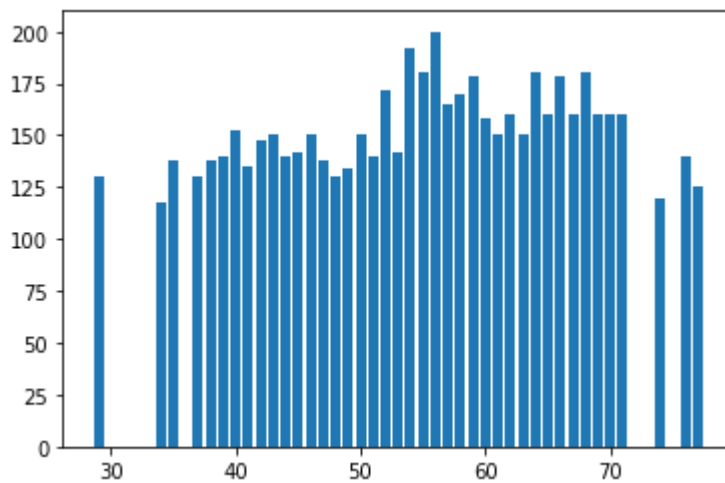<AxesSubplot:xlabel='RestBP'>
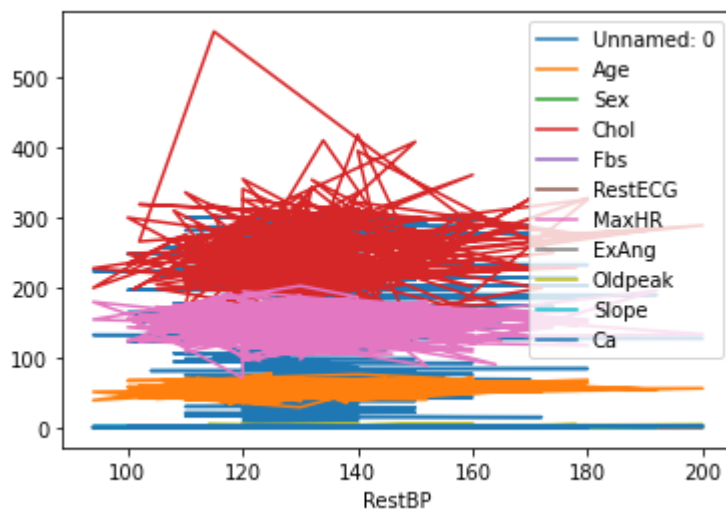


```
#BARPLOT using MATPLOTLIB
```

```
x=df['Age']
y=df['RestBP']
plt.bar(x,y)
```
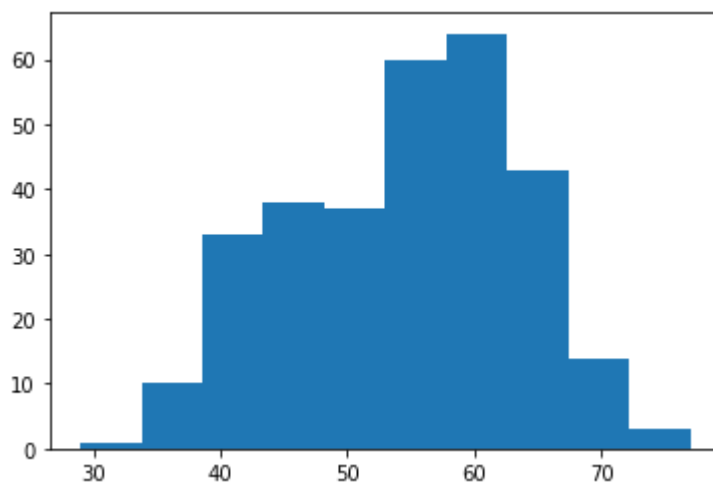
<BarContainer object of 303 artists>



```
#HISTOGRAM using MATPLOTLIB
x=df['Age']
plt.hist(x)
```
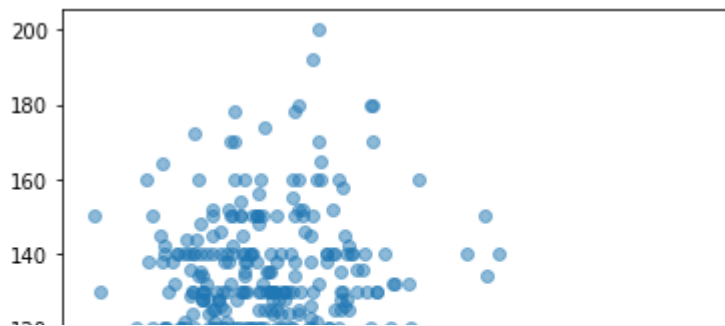
(array([ 1., 10., 33., 38., 37., 60., 64., 43., 14.,  3.]),
 array([29. , 33.8, 38.6, 43.4, 48.2, 53. , 57.8, 62.6, 67.4, 72.2, 77. ]),
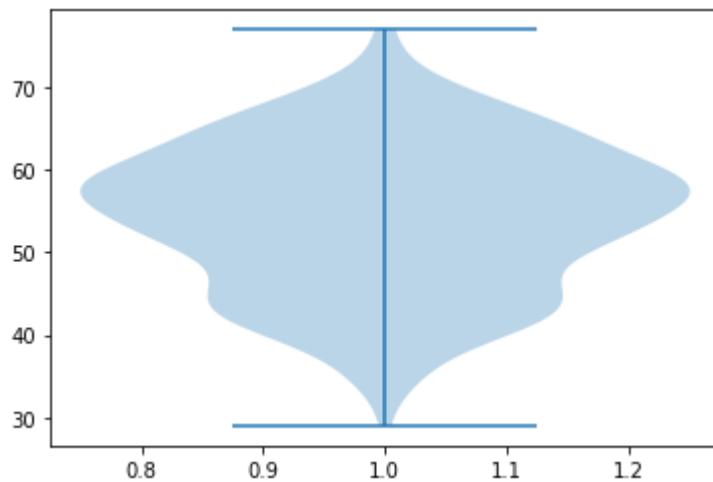 <BarContainer object of 10 artists>)



```
#SCATTERPLOT using MATPLOTLIB
x=df['Chol']
y=df['RestBP']
plt.scatter(x,y, alpha=0.5)
```

<matplotlib.collections.PathCollection at 0x1b7f412c430>



```
#VIOLINPLOT using MATPLOTLIB
plt.violinplot(df['Age'])
```

{'bodies': [<matplotlib.collections.PolyCollection at 0x1b7f6c25c10>],
 'cmaxes': <matplotlib.collections.LineCollection at 0x1b7f6c28d30>,
 'cmins': <matplotlib.collections.LineCollection at 0x1b7f6c2f3a0>,
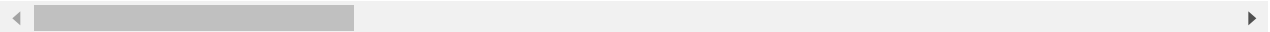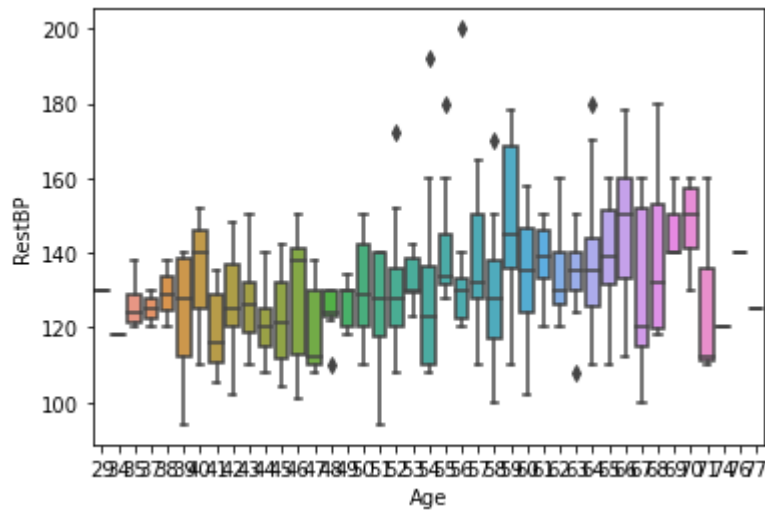 'cbars': <matplotlib.collections.LineCollection at 0x1b7f6c2f760>}



```
import seaborn as sns
```

```
#BARPLOT using SEABORN
x=df['Chol']
y=df['RestBP']
sns.barplot(x,y)
```

`<AxesSubplot:xlabel='Chol', ylabel='RestBP'>`



```
#BOXPLOT using SEABORN
x=df['Age']
y=df['RestBP']
sns.boxplot(x,y)
```

`<AxesSubplot:xlabel='Age', ylabel='RestBP'>`



```
#HISTOGRAM using SEABORN
sns.distplot(df['Age'])
```

`<AxesSubplot:xlabel='Age', ylabel='Density'>`



```
#LINEPLOT using SEABORN
```

```
x=df['Age']
y=df['RestBP']
sns.lineplot(x,y)
```

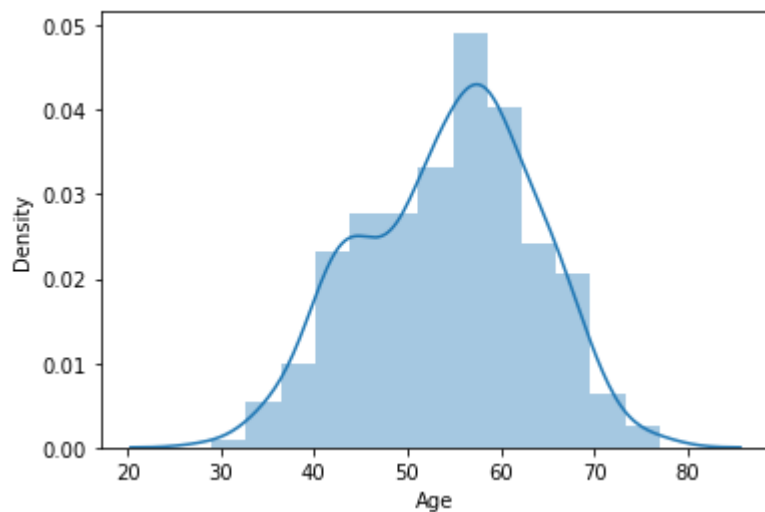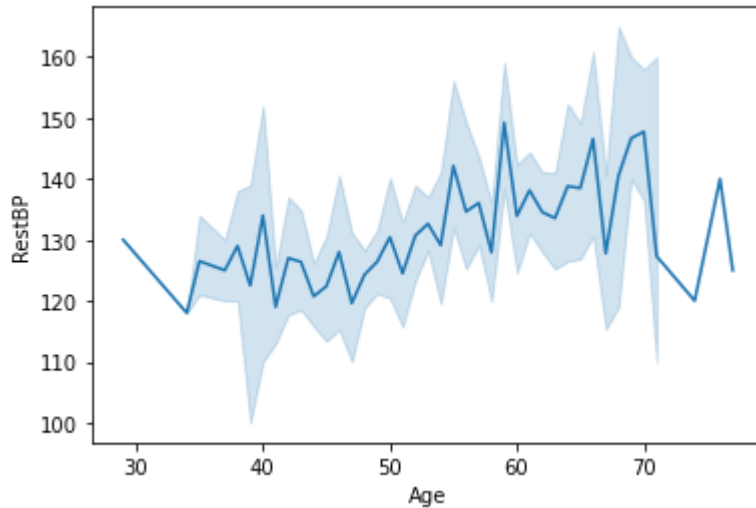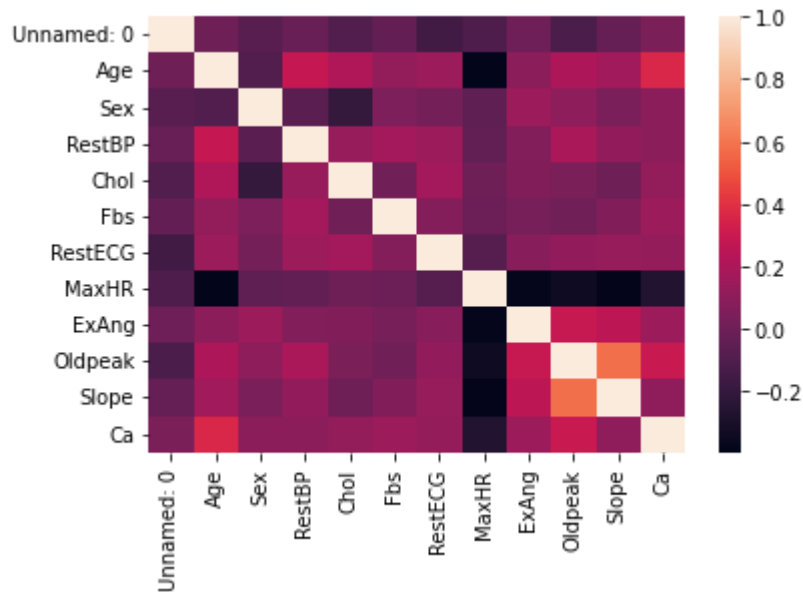C:\Users\Admin\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarnin
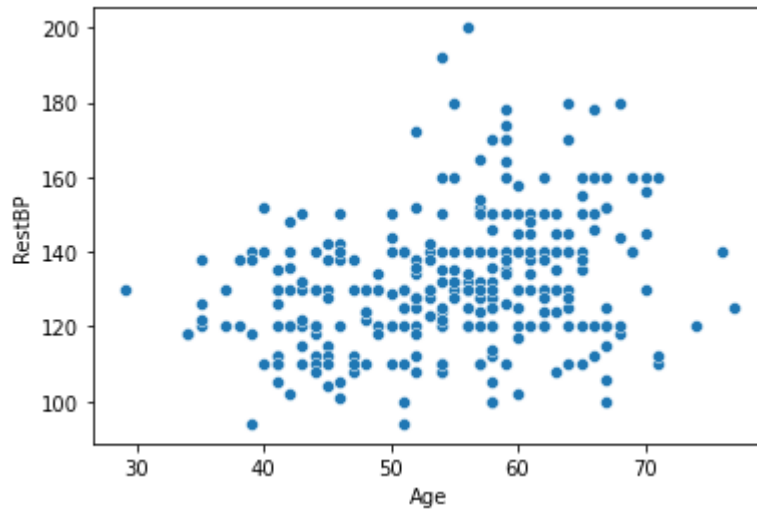  warnings.warn(
<AxesSubplot:xlabel='Age', ylabel='RestBP'>



```
#HEATMAP using SEABORN
sns.heatmap(df.corr())
```

<AxesSubplot:>



```
#SCATTERPLOT using SEABORN
x=df['Age']
y=df['RestBP']
sns.scatterplot(x,y)
```

```
<AxesSubplot:xlabel='Age', ylabel='RestBP'>
```
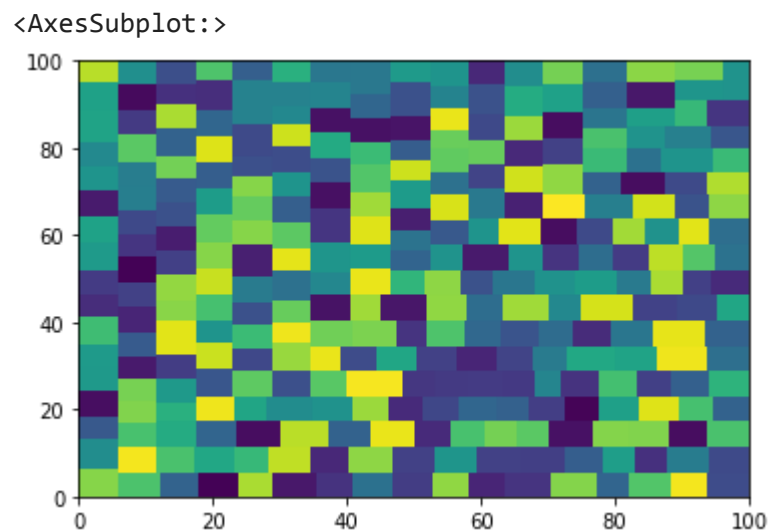


```
pip install squarify
```

```
Collecting squarify
  Downloading squarify-0.4.3-py3-none-any.whl (4.3 kB)
Installing collected packages: squarify
Successfully installed squarify-0.4.3
Note: you may need to restart the kernel to use updated packages.
```

```
#TREEMAP
import squarify
```

```
x=df['RestBP']
squarify.plot(x)
```

```
<AxesSubplot:>
```



```
#VIOLINPLOT using SEABORN
x=df['RestBP']
sns.violinplot(x)
```

```
C:\Users\Admin\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarnin
  warnings.warn(
<AxesSubplot:xlabel='RestBP'>
```