```
In [1]: import pandas as pd
        import numpy as np
        import matplotlib.pyplot as plt
```

```
In [2]: df=pd.read_csv("Heart.csv")
```

```
In [3]: df
```

Out[3]:

|	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

303 rows × 15 columns

```
size=[145,233,1,2,150,2.3]
labels='RestBP','Chol','fbs','RestECG','MaxHR','oldspeak'
plt.pie(size,labels=labels)
plt.title('physical condition at age 63')
plt.axis("equal")
plt.show()
```


physical condition at age 63
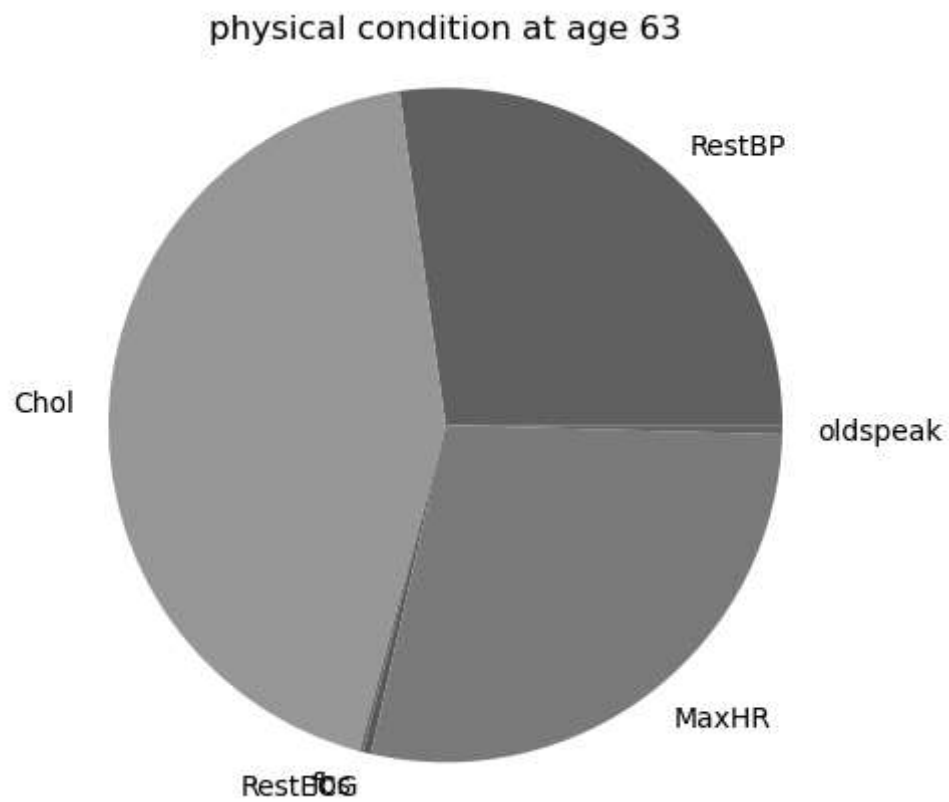
```
In [5]: data={'63':233,'67':286,'37':250,'41':204,'45':268}
        age= list(data.keys())
        values=list(data.values())
        fig=plt.figure(figsize=(10,5))
        plt.bar(age,values,color="maroon",width=0.4)
        plt.xlabel("Age of person")
        plt.ylabel("Rate of chol")
        plt.title("Rate of chol according to age person")
```
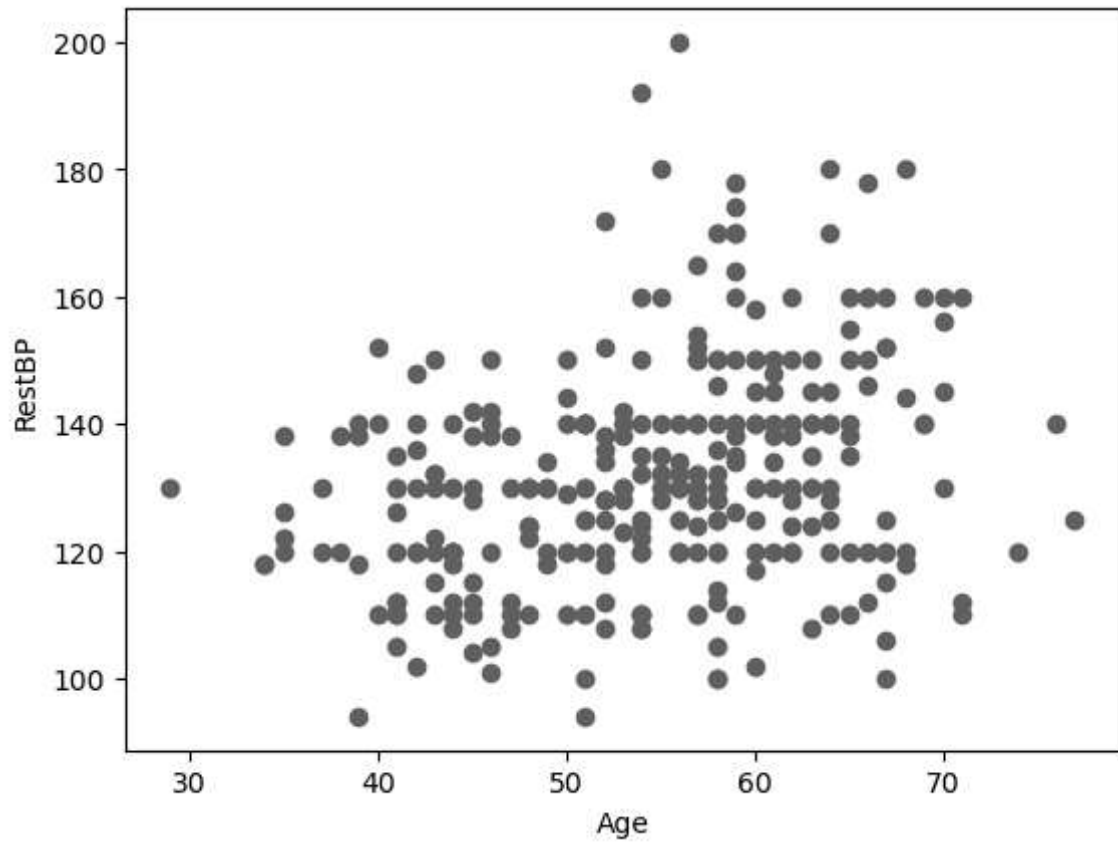
Out[5]: Text(0.5, 1.0, 'Rate of chol according to age person')
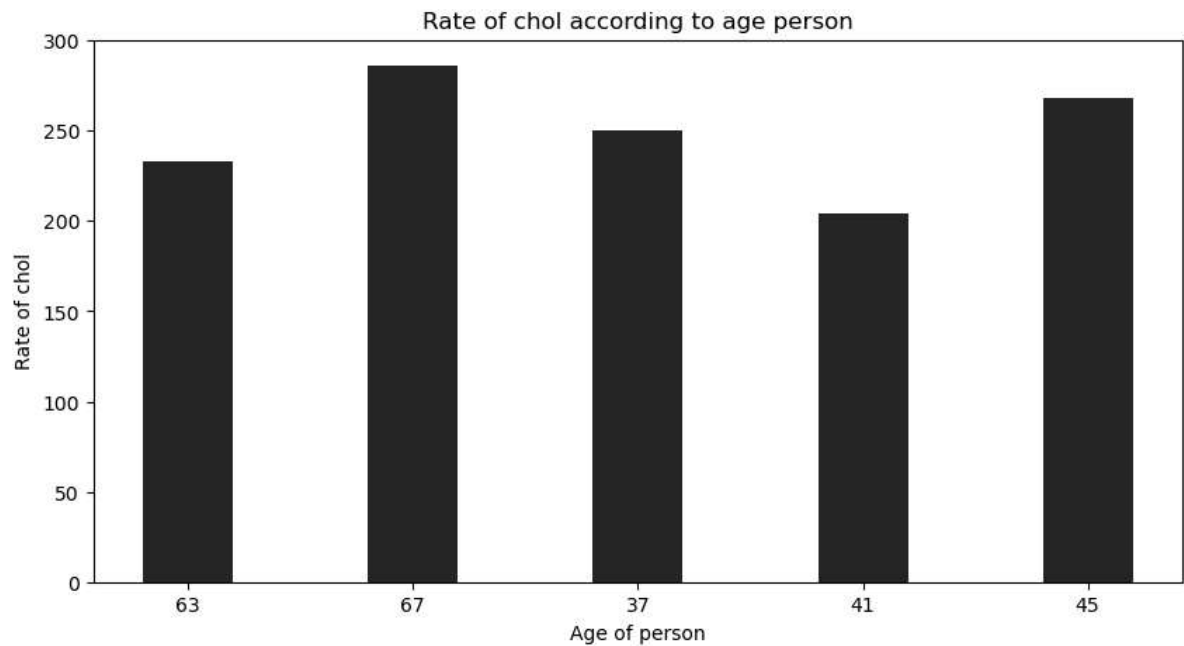
```
In [6]: data=df.RestBP
        plt.hist(data,bins=30,color='skyblue',edgecolor='black')
        plt.xlabel("RestBP")
        plt.ylabel("Age")
        plt.show()
```
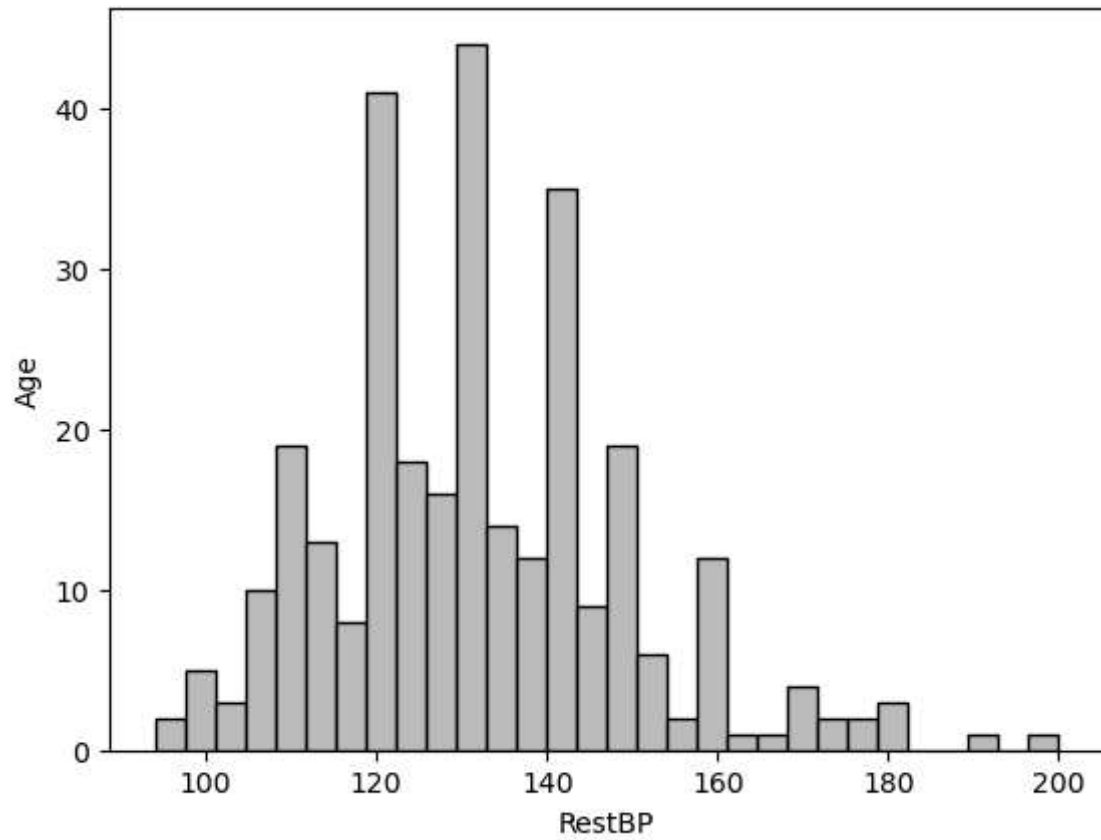
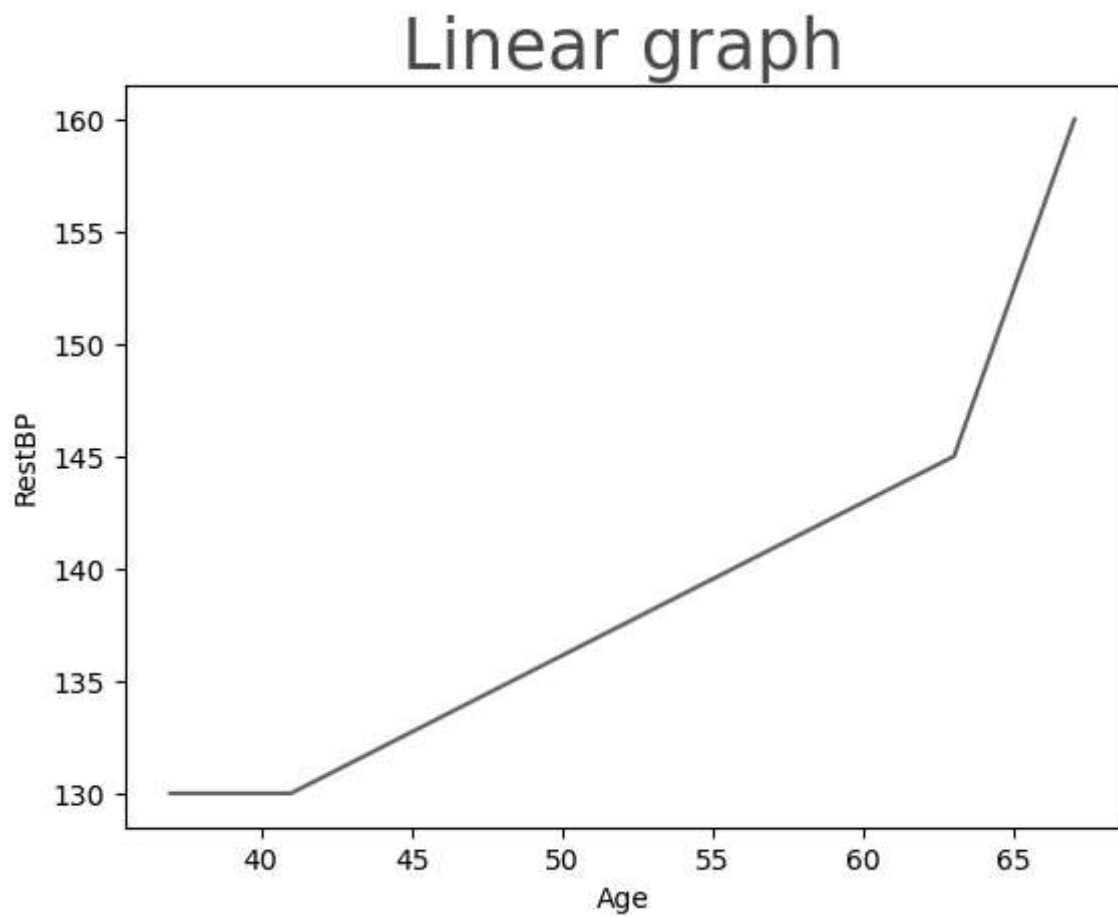```
In [7]: x=df.Age
        y=df.RestBP
        plt.xlabel("Age")
        plt.ylabel("RestBP")
        plt.scatter(x,y)
        plt.show()
```

```
In [8]: x=[37,41,63,67]
        y=[130,130,145,160]
        plt.plot(x,y)
        plt.title("Linear graph", fontsize =25, color="green")
        plt.xlabel("Age")
        plt.ylabel("RestBP")
```
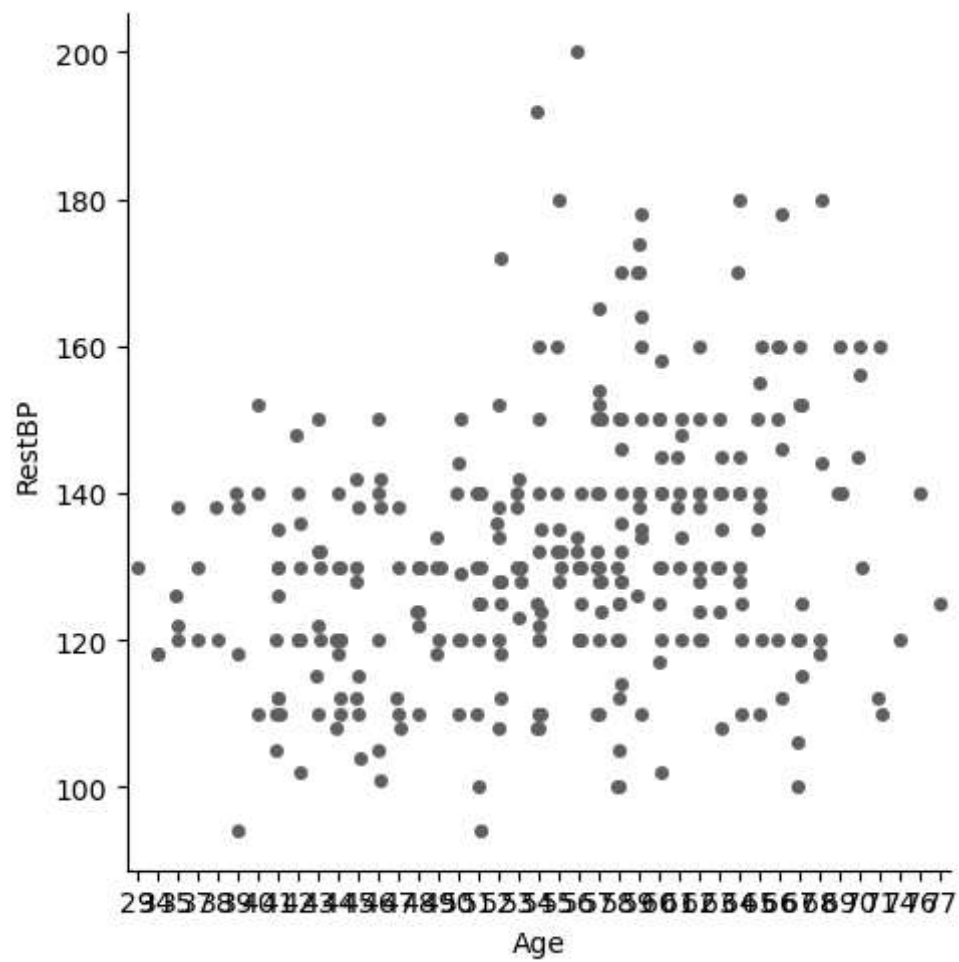
Out[8]: Text(0, 0.5, 'RestBP')

## Linear graph



```
In [9]: import seaborn as sns
        import pandas as pd
        heart=pd.read_csv("Heart.csv")
```
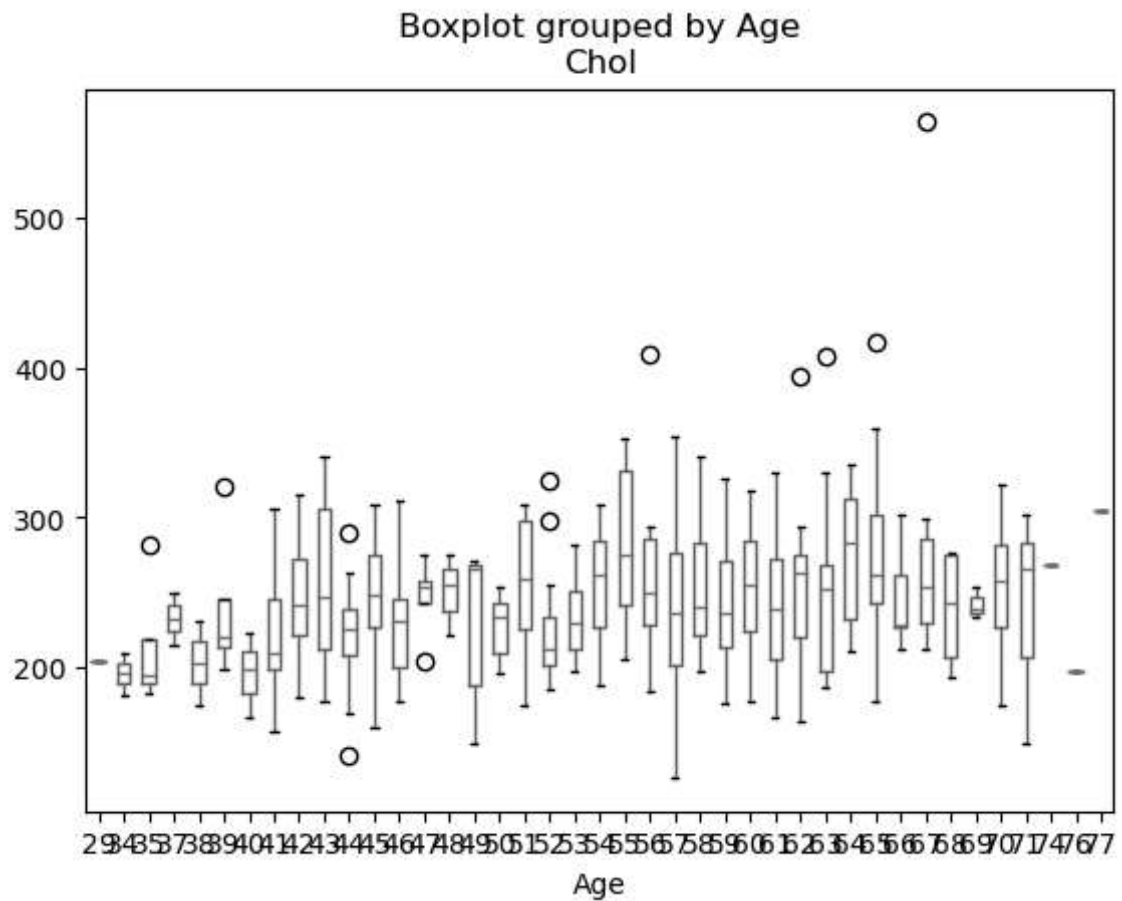
```
In [10]: sns.catplot(x='Age',y="RestBP",data=heart)
```

Out[10]: `<seaborn.axisgrid.FacetGrid at 0x1e1959dc990>`

```
In [14]: df.boxplot(by='Age',column=['Chol'],grid=False)
```
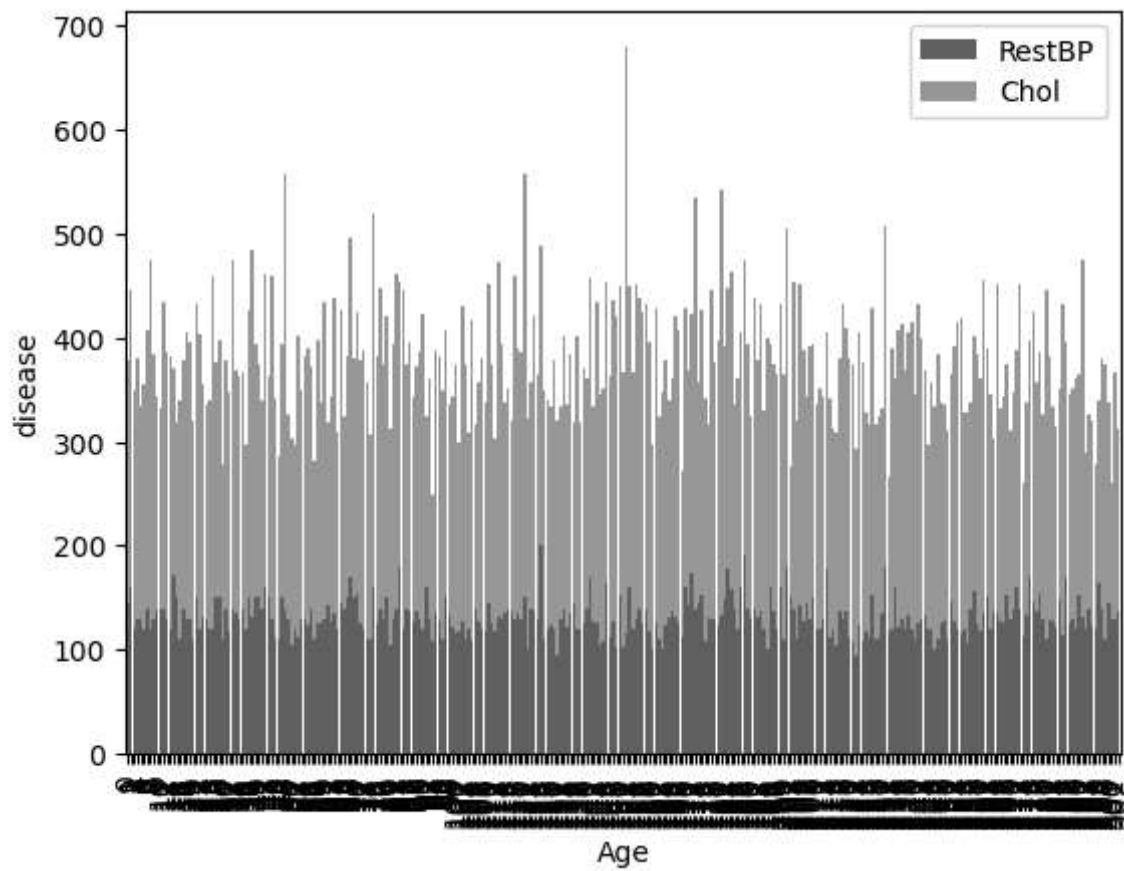
```
Out[14]: <Axes: title={'center': 'Chol'}, xlabel='Age'>
```



Boxplot grouped by Age
Chol

```
In [22]: data=df[["RestBP",'Chol']]
         print(data)
```

```
        RestBP   Chol
0          145    233
1          160    286
2          120    229
3          130    250
4          130    204
..         ...    ...
298        110    264
299        144    193
300        130    131
301        130    236
302        138    175

[303 rows x 2 columns]
```

```
In [23]: data.plot(kind='bar',stacked=True,width=0.9)
         plt.xlabel("Age")
         plt.ylabel("disease")
         plt.show()
```



```
In [ ]:
```

```
In [ ]:
```