jupyter task5 Last Checkpoint: 14 hours ago

File Edit View Run Kernel Settings Help

Trusted

Code

JupyterLab Python 3 (ipykernel)

[1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
```

[2]:
```
df=pd.read_csv('D:\\jupyter notebook\\heart.csv')
```

[3]:
```
df.head()
```

[3]:

	age	sex	cp	trestbps	chol	fbs	restecg	thalach	exang	oldpeak	slope	ca	thal	target
0	52	1	0	125	212	0	1	168	0	1.0	2	2	3	0
1	53	1	0	140	203	1	0	155	1	3.1	0	0	3	0
2	70	1	0	145	174	0	1	125	1	2.6	0	0	3	0
3	61	1	0	148	203	0	1	161	0	0.0	2	1	3	0
4	62	0	0	138	294	1	1	106	0	1.9	1	3	2	0

[4]:
```
df.tail()
```

[4]:

	age	sex	cp	trestbps	chol	fbs	restecg	thalach	exang	oldpeak	slope	ca	thal	target
1020	59	1	1	140	221	0	1	164	1	0.0	2	0	2	1
1021	60	1	0	125	258	0	0	141	1	2.8	1	1	3	0
1022	47	1	0	110	275	0	0	118	1	1.0	1	1	2	0
1023	50	0	0	110	254	0	0	159	0	0.0	2	0	2	1
1024	54	1	0	120	188	0	1	113	0	1.4	1	1	3	0

[5]:
```
df.columns.values
```

[5]:
```
array(['age', 'sex', 'cp', 'trestbps', 'chol', 'fbs', 'restecg',
       'thalach', 'exang', 'oldpeak', 'slope', 'ca', 'thal', 'target'],
      dtype=object)
```

[6]:
```
df.isna().sum()
```

[6]:
```
age         0
sex         0
cp          0
trestbps    0
```

Code

JupyterLab Python 3 (ipykernel)

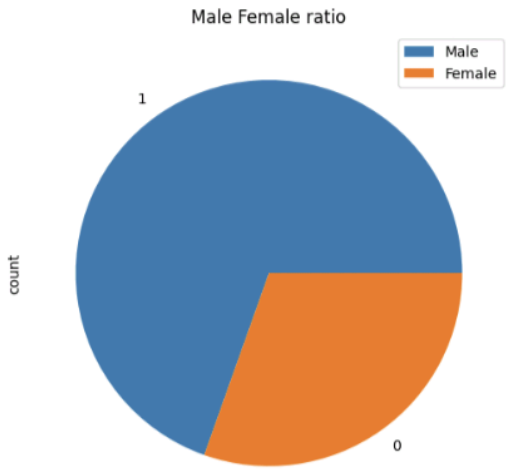
[15]:
```
# o for Female
# 1 for male
# sex column  part
#0 represent no disease
# 1 for disesase
#target column part

df.sex.value_counts()
```

[15]:
```
sex
1    713
0    312
Name: count, dtype: int64
```

[16]:
```
#plotting pie chart

df.sex.value_counts().plot(kind='pie',figsize=(8,6))
plt.title('Male Female ratio')
plt.legend(['Male','Female']);
```



[17]:
```
#for 2 ques
```

Set as default

jupyter task5 Last Checkpoint: 14 hours ago

File Edit View Run Kernel Settings Help

Trusted

Code

JupyterLab Python 3 (ipykernel)

[1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
```

[2]:
```
df=pd.read_csv('D:\\jupyter notebook\\heart.csv')
```

[3]:
```
df.head()
```

[3]:

	age	sex	cp	trestbps	chol	fbs	restecg	thalach	exang	oldpeak	slope	ca	thal	target
0	52	1	0	125	212	0	1	168	0	1.0	2	2	3	0
1	53	1	0	140	203	1	0	155	1	3.1	0	0	3	0
2	70	1	0	145	174	0	1	125	1	2.6	0	0	3	0
3	61	1	0	148	203	0	1	161	0	0.0	2	1	3	0
4	62	0	0	138	294	1	1	106	0	1.9	1	3	2	0

[4]:
```
df.tail()
```

[4]:

	age	sex	cp	trestbps	chol	fbs	restecg	thalach	exang	oldpeak	slope	ca	thal	target
1020	59	1	1	140	221	0	1	164	1	0.0	2	0	2	1
1021	60	1	0	125	258	0	0	141	1	2.8	1	1	3	0
1022	47	1	0	110	275	0	0	118	1	1.0	1	1	2	0
1023	50	0	0	110	254	0	0	159	0	0.0	2	0	2	1
1024	54	1	0	120	188	0	1	113	0	1.4	1	1	3	0

[5]:
```
df.columns.values
```

[5]:
```
array(['age', 'sex', 'cp', 'trestbps', 'chol', 'fbs', 'restecg',
       'thalach', 'exang', 'oldpeak', 'slope', 'ca', 'thal', 'target'],
      dtype=object)
```

[6]:
```
df.isna().sum()
```

[6]:
```
age         0
sex         0
cp          0
trestbps    0
chol        0
```

jupyter task5 Last Checkpoint: 14 hours ago

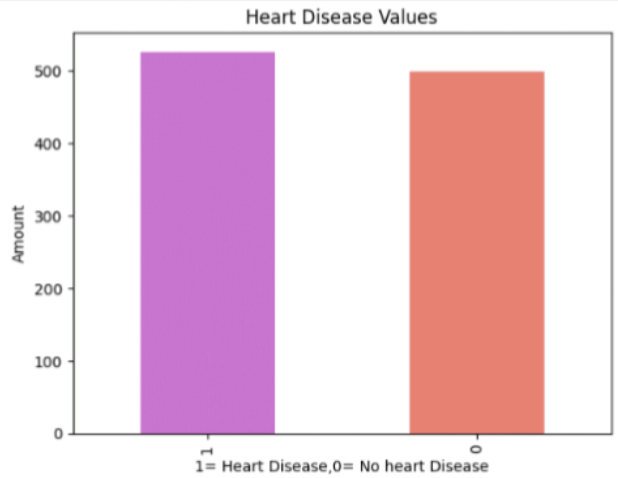
File Edit View Run Kernel Settings Help

Trusted

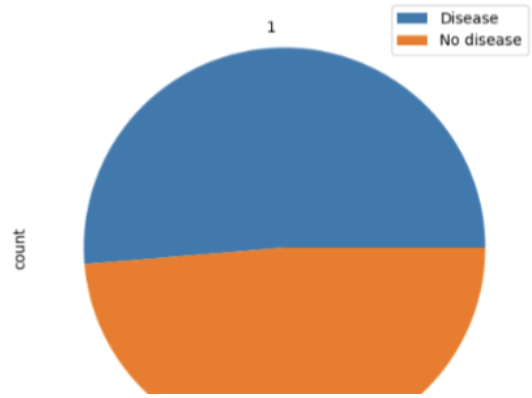
Close

Code

JupyterLab Python 3 (ipykernel)



[14]:
```
#plotting pie chart
df.target.value_counts().plot(kind='pie',figsize=(8,6))
plt.legend(["Disease","No disease"]);
```



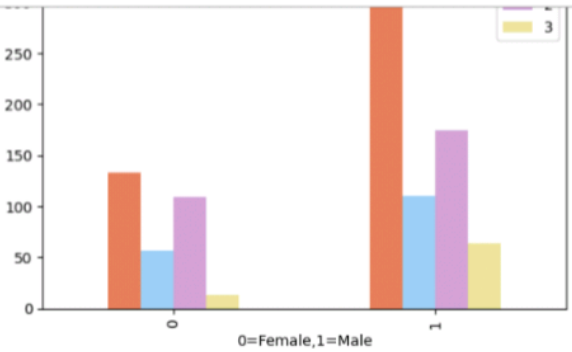
jupyter task5 Last Checkpoint: 14 hours ago

File Edit View Run Kernel Settings Help

Trusted

Code

JupyterLab Python 3 (ipykernel)



[23]:
```
#4
pd.crosstab(df.cp,df.target)
```

[23]:

target	0	1
cp		
0	375	122
1	33	134
2	65	219
3	26	51

[24]:
```
sns.countplot(x='cp',data=df,hue='target');
```

ooks/Untitled1.ipynb

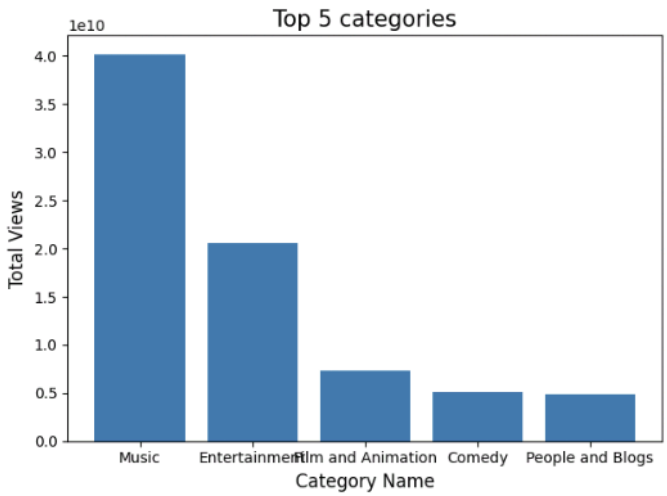
jupyter Untitled1 Last Checkpoint: 1 hour ago

File Edit View Run Kernel Settings Help

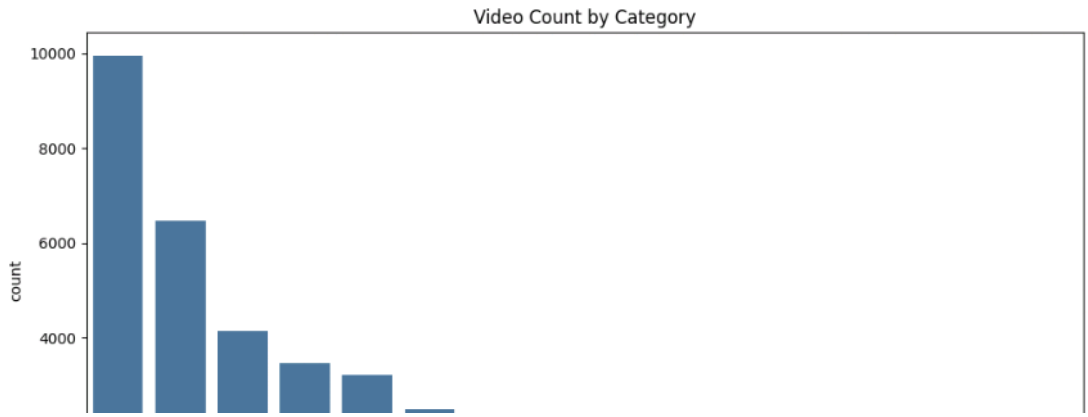
Trusted

Code

JupyterLab Python 3 (ipykernel)



[21]:
```
plt.figure(figsize=(12,6))
sns.countplot(x='category_name',data=df,order=df['category_name'].value_counts().index)
plt.xticks(rotation=90)
plt.title('Video Count by Category')
plt.show()
```



Set as default

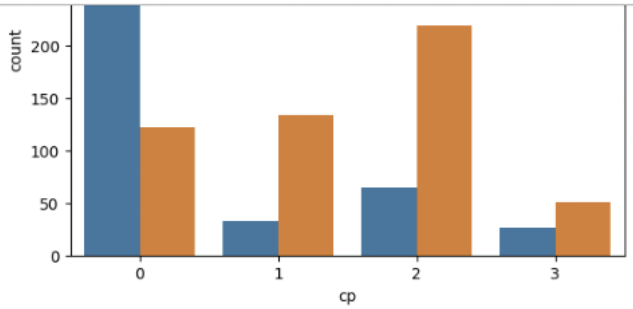
jupyter task5 Last Checkpoint: 15 hours ago

File Edit View Run Kernel Settings Help

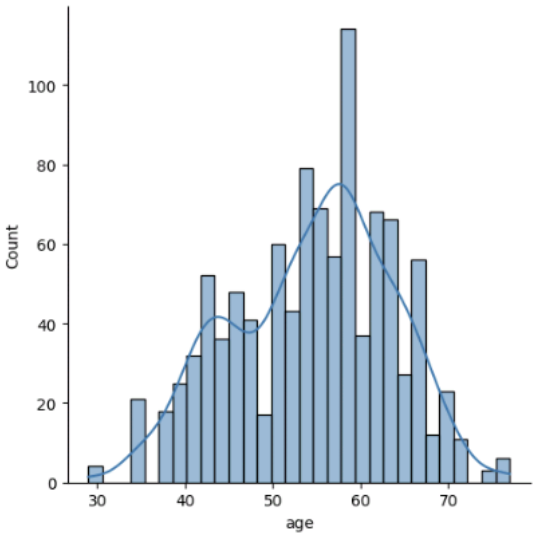
Trusted

Code

JupyterLab Python 3 (ipykernel)



[25]:
```
sns.displot(x='age',data=df,bins=30,kde=True);
```



[26]:
```
sns.displot(x='thalach',data=df,bins=30,kde=True,color='chocolate');
```

jupyter Tasks Last Checkpoint: 14 hours ago

File Edit View Run Kernel Settings Help

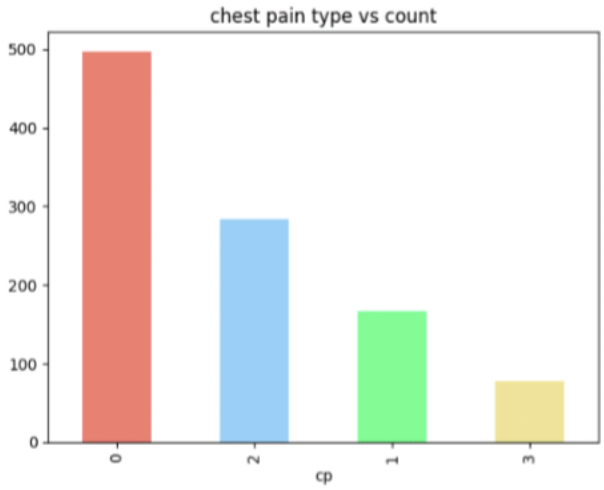
Trusted

Code

JupyterLab Python 3 (ipykernel)

Name: count, dtype: int64

[20]:
```
df.cp.value_counts().plot(kind='bar',color=['salmon','lightskyblue','springgreen','khaki'])
plt.title('chest pain type vs count');
```

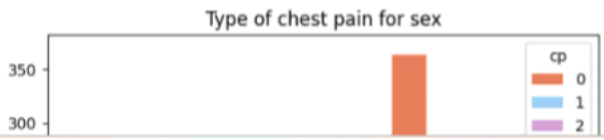


[21]:
```
pd.crosstab(df.sex,df.cp)
```

[21]:

sex	cp 0	1	2	3
0	133	57	109	13
1	364	110	175	64

[22]:
```
pd.crosstab(df.sex,df.cp).plot(kind='bar',color=['coral','lightskyblue','plum','khaki'])
plt.title("Type of chest pain for sex")
plt.xlabel('0=Female,1=Male');
```



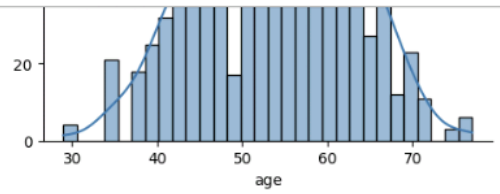
jupyter task5 Last Checkpoint: 15 hours ago

File Edit View Run Kernel Settings Help

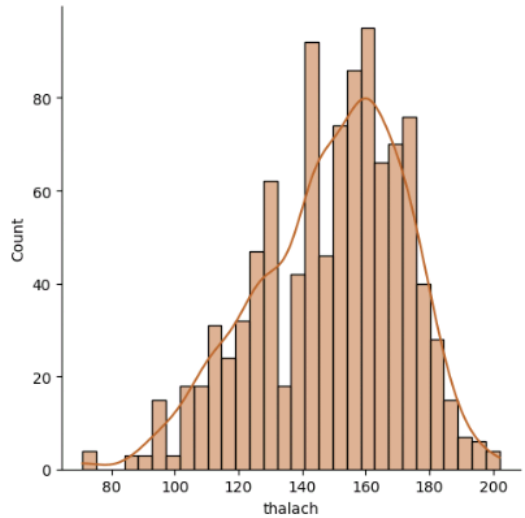
Trusted

Code

JupyterLab Python 3 (ipykernel)



[26]:
```
sns.displot(x='thalach',data=df,bins=30,kde=True,color='chocolate');
```



[ ]:

jupyter task5 Last Checkpoint: 14 hours ago

File Edit View Run Kernel Settings Help

Trusted

Code

JupyterLab Python 3 (ipykernel)

[10]:
```
df.describe()
```

[10]:

	age	sex	cp	trestbps	chol	fbs	restecg	thalach	exang	oldpeak	slope	ca	10
count	1025.000000	1025.000000	1025.000000	1025.000000	1025.00000	1025.000000	1025.000000	1025.000000	1025.000000	1025.000000	1025.000000	1025.000000	
mean	54.434146	0.695610	0.942439	131.611707	246.00000	0.149268	0.529756	149.114146	0.336585	1.071512	1.385366	0.754146	
std	9.072290	0.460373	1.029641	17.516718	51.59251	0.356527	0.527878	23.005724	0.472772	1.175053	0.617755	1.030798	
min	29.000000	0.000000	0.000000	94.000000	126.00000	0.000000	0.000000	71.000000	0.000000	0.000000	0.000000	0.000000	
25%	48.000000	0.000000	0.000000	120.000000	211.00000	0.000000	0.000000	132.000000	0.000000	0.000000	1.000000	0.000000	
50%	56.000000	1.000000	1.000000	130.000000	240.00000	0.000000	1.000000	152.000000	0.000000	0.800000	1.000000	0.000000	
75%	61.000000	1.000000	2.000000	140.000000	275.00000	0.000000	1.000000	166.000000	1.000000	1.800000	2.000000	1.000000	
max	77.000000	1.000000	3.000000	200.000000	564.00000	1.000000	2.000000	202.000000	1.000000	6.200000	2.000000	4.000000	

[11]:
```
ques=["1. How many people have heart disease and how many people doesn't have heart disease?",
      "2. People of which sex has more heart disease?",
      "3. People of which sex have which type of chest pain?",
      "4. People of which chest pain are mmost pron to have heart disease?"]
ques
```

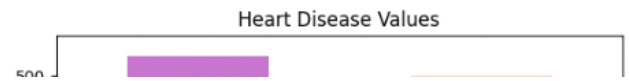
[11]:
```
["1. How many people have heart disease and how many people doesn't have heart disease?",
 '2. People of which sex has more heart disease?',
 '3. People of which sex have which type of chest pain?',
 '4. People of which chest pain are mmost pron to have heart disease?']
```

[12]:
```
#to find the ans of first ques
#getting the values

df.target.value_counts()
```

[12]:
```
target
1    526
0    499
Name: count, dtype: int64
```

[13]:
```
#plotting bar chart
df.target.value_counts().plot(kind='bar',color=["orchid","salmon"])
plt.title("Heart Disease Values")
plt.xlabel("1= Heart Disease,0= No heart Disease")
plt.ylabel("Amount");
```



jupyter task5 Last Checkpoint: 14 hours ago

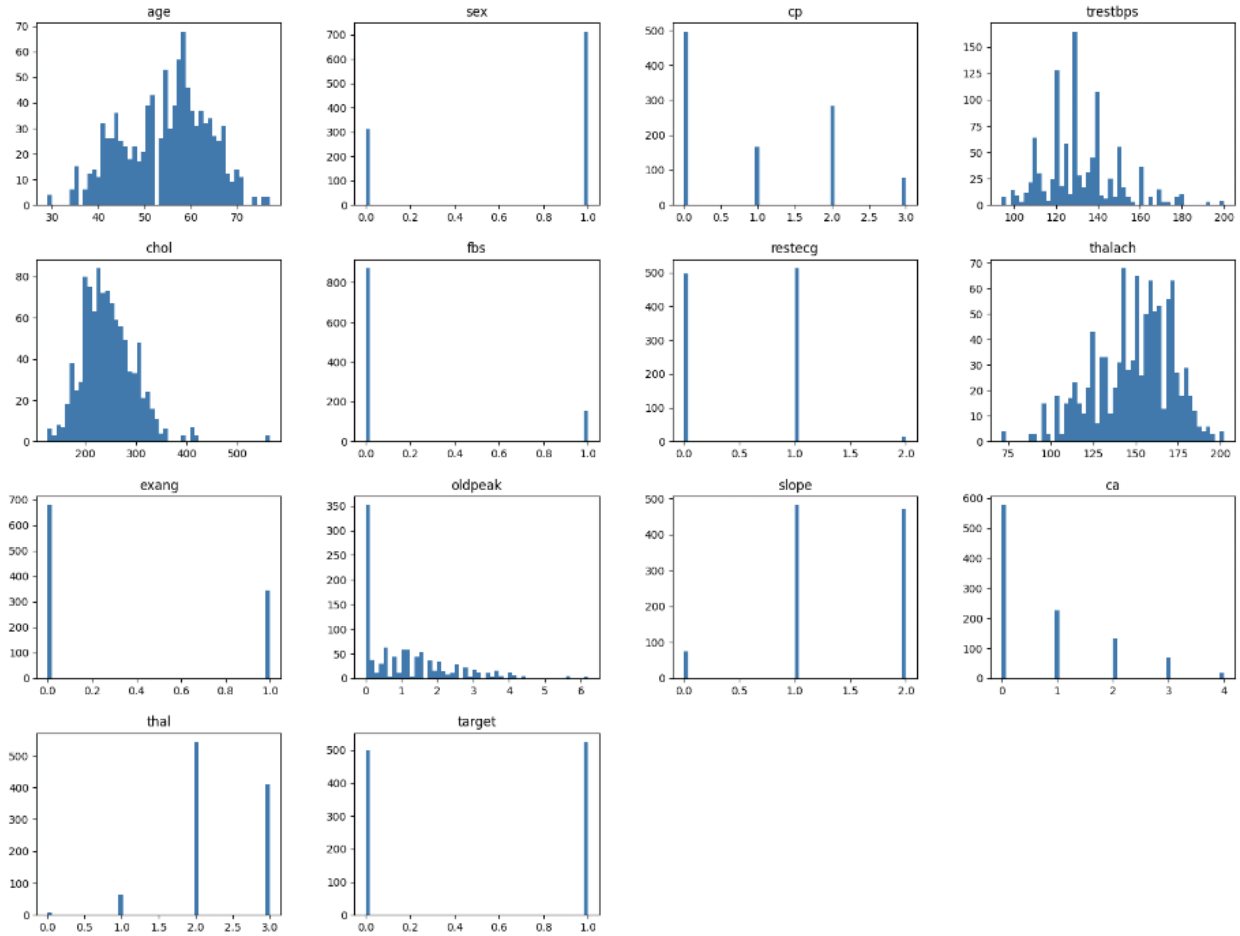
File Edit View Run Kernel Settings Help

Trusted

Code

JupyterLab Python 3 (ipykernel)

[8]:
```
#histogram of all numeric values
df.hist(bins=50,grid=False,figsize=(20,15));
```



Set as default

jupyter task5 Last Checkpoint: 14 hours ago

File Edit View Run Kernel Settings Help

Trusted

Code

JupyterLab Python 3 (ipykernel)

1023	50	0	0	110	254	0	0	159	0	0.0	2	0	2	1
1024	54	1	0	120	188	0	1	113	0	1.4	1	1	3	0

[5]:
```
df.columns.values
```

[5]:
```
array(['age', 'sex', 'cp', 'trestbps', 'chol', 'fbs', 'restecg',
       'thalach', 'exang', 'oldpeak', 'slope', 'ca', 'thal', 'target'],
      dtype=object)
```

[6]:
```
df.isna().sum()
```

[6]:
```
age         0
sex         0
cp          0
trestbps    0
chol        0
fbs         0
restecg     0
thalach     0
exang       0
oldpeak     0
slope       0
ca          0
thal        0
target      0
dtype: int64
```

[7]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1025 entries, 0 to 1024
Data columns (total 14 columns):
 #   Column    Non-Null Count  Dtype  
---  ------    --------------  -----  
 0   age       1025 non-null   int64  
 1   sex       1025 non-null   int64  
 2   cp        1025 non-null   int64  
 3   trestbps  1025 non-null   int64  
 4   chol      1025 non-null   int64  
 5   fbs       1025 non-null   int64  
 6   restecg   1025 non-null   int64  
 7   thalach   1025 non-null   int64  
 8   exang     1025 non-null   int64  
 9   oldpeak   1025 non-null   float64
 10  slope     1025 non-null   int64  
 11  ca        1025 non-null   int64  
 12  thal      1025 non-null   int64  
 13  target    1025 non-null   int64  
dtypes: float64(1), int64(13)
memory usage: 112.2 KB
```