

The screenshot shows the Spyder IDE interface with the following details:

- File Menu:** File, Edit, Search, Source, Run, Debug, Consoles, Projects, Tools, View, Help.
- Toolbar:** Includes icons for file operations like Open, Save, Copy, Paste, Find, and Run.
- Path Bar:** C:\Users\yogay\OneDrive\Desktop\untitled1.py
- Editor:** Three tabs are open: temp.py, SLR_housePrice.py, and untitled1.py*. The untitled1.py* tab contains the following code:

```
1 #TITANIC DATASET ANALYSIS
2
3 import pandas as pd
4 import numpy as np
5
6 titanic=pd.read_csv(r'C:\Users\yogay\OneDrive\Desktop\Yogita_Yadav\Data Science\1st\Titanic dataset analysis\DATASET\train.csv')
7
8 titanic.tail()
9
```
- Variable Explorer:** Shows a DataFrame named "dataset" with 891 rows and 12 columns. Column names are partially visible.
- Console:** An IPython console window titled "Console 1/A X" is active, showing the following session:

```
In [12]: import pandas as pd
...: ...
...: In [13]: dataset=pd.read_csv(r'C:\Users\yogay\OneDrive\Desktop\Yogita_Yadav\Data Science\1st\Titanic dataset analysis\DATASET\train.csv')
...: ...
...: In [14]: titanic=pd.read_csv(r'C:\Users\yogay\OneDrive\Desktop\Yogita_Yadav\Data Science\1st\Titanic dataset analysis\DATASET\train.csv')
...: ...
...: In [15]: titanic.tail()
Out[15]:
   PassengerId  Survived  Pclass  ...   Fare Cabin Embarked
886           887       0      2  ...  13.00    NaN      S
887           888       1      1  ...  30.00  B42      S
888           889       0      3  ...  23.45  NaN      S
889           890       1      1  ...  30.00  C148      C
890           891       0      3  ...   7.75  NaN      Q
```

[5 rows x 12 columns]

In [16]:
- Bottom Status Bar:** conda: base (Python 3.10.9) ✓ Completions: conda ✓ LSP: Python Line 9, Col 1 UTF-8 CRLF RW Mem 75%

The screenshot shows the Spyder IDE interface with the following details:

- File Menu:** File, Edit, Search, Source, Run, Debug, Consoles, Projects, Tools, View, Help.
- Toolbar:** Includes icons for file operations like Open, Save, Copy, Paste, Find, and Run.
- Address Bar:** C:\Users\yogay\OneDrive\Desktop\untitled1.py
- Editor:** The code editor contains the following Python script:

```
1 #TITANIC DATASET ANALYSIS
2
3 import pandas as pd
4 import numpy as np
5
6 titanic=pd.read_csv(r'C:\Users\yogay\OneDrive\Desktop\Yogita_Yadav\Data Science\1st\Titanic \
7
8 titanic.tail()
9
10 titanic.describe()
11 |
```
- Variable Explorer:** Shows a DataFrame named "dataset" with 891 rows and 12 columns. It also includes tabs for Variable Explorer, Help, Plots, and Files.
- Console 1/A:** Displays the output of the titanic.describe() command.

	PassengerId	Survived	Pclass	...	SibSp
Parch	Fare				
count	891.000000	891.000000	891.000000	...	891.000000
891.000000	891.000000				
mean	446.000000	0.383838	2.308642	...	0.523008
0.381594	32.204208				
std	257.353842	0.486592	0.836071	...	1.102743
0.806057	49.693429				
min	1.000000	0.000000	1.000000	...	0.000000
0.000000	0.000000				
25%	223.500000	0.000000	2.000000	...	0.000000
0.000000	7.918400				
50%	446.000000	0.000000	3.000000	...	0.000000
0.000000	14.454200				
75%	668.500000	1.000000	3.000000	...	1.000000
0.000000	31.000000				
max	891.000000	1.000000	3.000000	...	8.000000
6.000000	512.329200				
- IPython Console:** Shows the command In [16]: titanic.describe() followed by the output table.
- Status Bar:** conda: base (Python 3.10.9) Completions: conda LSP: Python Line 11, Col 1 UTF-8 CRLF RW Mem 7
- Bottom Bar:** Run selection or current line, various icons for file operations, and the time 00:41.

Spyder (Python 3.10)

File Edit Search Source Run Debug Consoles Projects Tools View Help

C:\Users\yogay\OneDrive\Desktop\untitled1.py

temp.py SLR_housePrice.py untitled1.py*

```
1 #TITANIC DATASET ANALYSIS
2
3 import pandas as pd
4 import numpy as np
5
6 titanic=pd.read_csv(r'C:\Users\yogay\OneDrive\Desktop\Yogita_Yadav\Data Science\1st\Titanic.csv')
7
8 titanic.tail()
9
10 titanic.describe()
11
12 del titanic["Name"]
13 titanic.head()
```

Name Type Size Value

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names:

Console 1/A

```
0.80665 / 49.693429
min 1.00000 0.00000 1.00000 ... 0.00000
0.00000 0.00000
25% 223.50000 0.00000 2.00000 ... 0.00000
0.00000 7.910400
50% 446.00000 0.00000 3.00000 ... 0.00000
0.00000 14.454200
75% 668.50000 1.00000 3.00000 ... 1.00000
0.00000 31.00000
max 891.00000 1.00000 3.00000 ... 8.00000
6.00000 512.329200

[8 rows x 7 columns]
```

In [17]: del titanic["Name"]
...: titanic.head()

Out[17]:

	PassengerId	Survived	Pclass	...	Fare	Cabin	Embarked
0	1	0	3	...	7.2500	NaN	S
1	2	1	1	...	71.2833	C85	C
2	3	1	3	...	7.9250	NaN	S
3	4	1	1	...	53.1000	C123	S
4	5	0	3	...	8.0500	NaN	S

[5 rows x 11 columns]

In [18]:

IPython Console History

Run selection or current line

conda; base (Python 3.10.9) Completions: conda LSP: Python Line 13, Col 15 UTF-8 CRLF RW Mem 8

The screenshot shows the Spyder IDE interface with the following details:

- File Menu:** File Edit Search Source Run Debug Consoles Projects Tools View Help
- Toolbar:** Standard file operations like Open, Save, Run, and Find.
- Project Explorer:** Shows files: temp.py, SLR_housePrice.py, and untitled1.py*.
- Code Editor:** Displays Python code forTitanic dataset analysis, including reading the CSV, tailing the dataset, describing it, dropping columns like "Name", "Ticket", and "Cabin", and finally dropping the "Fare" column.
- Variable Explorer:** Shows the DataFrame named "dataset" with 891 rows and 12 columns. It includes a preview of the first few rows and the full column names.
- Console:** Displays the command "del titanic["Ticket"]" and its output, which is a DataFrame with 5 rows and 10 columns.
- Status Bar:** Shows the environment as "conda: base (Python 3.10.9)", completion status as "Completions: conda", LSP as "Python", line 16, col 15, and timestamp "00:43".

```
#TITANIC DATASET ANALYSIS
import pandas as pd
import numpy as np
titanic=pd.read_csv(r'C:\Users\yogay\OneDrive\Desktop\Yogita_Yadav\Data Science\1st\Titanic.csv')
titanic.tail()
titanic.describe()
del titanic["Name"]
titanic.head()
del titanic["Ticket"]
titanic.head()
del titanic["Fare"]
titanic.head()
del titanic["Cabin"]
titanic.head()
```

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names: [PassengerId, Survived, Pclass, Sex, Age, SibSp, Parch, Fare, Cabin, Embarked]

```
In [18]: del titanic["Ticket"]
...: titanic.head()
Out[18]:
   PassengerId  Survived  Pclass    Sex   Age  SibSp  Parch     Fare Cabin Embarked
0            1         0       3  male  22.0        1     0   7.2500      N
1            2         1       1  female  31.0        1     0  71.2833      C
2            3         1       3  female  26.0        1     0   7.9250      S
3            4         1       1  female  35.0        1     0  53.1000      C
4            5         0       3  male  17.0        1     0   8.0500      S
```

[5 rows x 10 columns]

```
In [19]:
```

The screenshot shows a Jupyter Notebook interface with the following details:

- File Bar:** File Edit Search Source Run Debug Consoles Projects Tools View Help
- Path:** C:\Users\yogay\OneDrive\Desktop\untitled1.py
- Code Editor:** The code cell contains Python code forTitanic dataset analysis, including reading the CSV file, displaying tail and describe statistics, and dropping columns like Name, Ticket, and Fare.
- Variable Explorer:** Shows a DataFrame named "dataset" with 891 rows and 12 columns, including columns like PassengerId, Survived, Pclass, Sex, Age, SibSp, Parch, Cabin, and Embarked.
- Console:** The console output shows the execution of the code, specifically the command to drop the "Fare" column and the resulting head() output.
- Bottom Status Bar:** conda: base (Python 3.10.9) Completions: conda LSP: Python Line 19, Col 15 UTF-8 CRLF RW Mem 8

```
#TITANIC DATASET ANALYSIS
import pandas as pd
import numpy as np

titanic=pd.read_csv(r'C:\Users\yogay\OneDrive\Desktop\Yogita_Yadav\Data Science\1st\Titanic.csv')
titanic.tail()
titanic.describe()
del titanic["Name"]
titanic.head()
del titanic["Ticket"]
titanic.head()
del titanic["Fare"]
titanic.head()
del titanic["Cabin"]
titanic.head()

[5 rows x 10 columns]

In [19]: del titanic["Fare"]
...: titanic.head()
Out[19]:
   PassengerId  Survived  Pclass    Sex   Age  SibSp  Parch Cabin Embarked
0            1         0      3  male  22.0      1      0   NaN        S
1            2         1      1  female  38.0      1      0   C85        S
2            3         1      3  female  26.0      0      0   NaN        C
3            4         1      1  female  35.0      1      0  C123        S
4            5         0      3  male  35.0      0      0   NaN        S
```

The screenshot shows a Python development environment with the following details:

- File Explorer:** Shows three files: temp.py, SLR_housePrice.py, and untitled1.py*.
- Code Editor:** Displays the content of `untitled1.py*` which includes code forTitanic dataset analysis, such as reading the CSV file, displaying tail and describe statistics, and dropping columns like Name, Ticket, Fare, and Cabin.
- Variable Explorer:** Shows a DataFrame named `dataset` with 891 rows and 12 columns. The columns are labeled: Name, Type, Size, and Value. The DataFrame is a `DataFrame` object.
- Console:** Displays the output of the code execution. It shows the first few rows of the dataset and the command to drop the Cabin column.
- Status Bar:** Provides information about the environment, including conda: base (Python 3.10.9), completions: conda, LSP: Python, and memory usage.

```
#TITANIC DATASET ANALYSIS
import pandas as pd
import numpy as np

titanic=pd.read_csv(r'C:\Users\yogay\OneDrive\Desktop\Yogita_Yadav\Data Science\1st\Titanic.csv')
titanic.tail()
titanic.describe()
del titanic["Name"]
titanic.head()

del titanic["Ticket"]
titanic.head()

del titanic["Fare"]
titanic.head()

del titanic["Cabin"]
titanic.head()
```

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names:

```
In [20]: del titanic["Cabin"]
...: titanic.head()
Out[20]:
   PassengerId  Survived  Pclass    Sex   Age  SibSp  Parch
Embarked
0            1       0     3  male  22.0      1      0
1            2       1     1  female  38.0      1      0
2            3       1     3  female  26.0      0      0
3            4       1     1  female  35.0      1      0
4            5       0     3  male  35.0      0      0
S            6       1     1  female  35.0      1      0
S            7       0     3  male  35.0      0      0
S            8       1     1  female  35.0      1      0
S            9       0     3  male  35.0      0      0
S            10      1     1  female  35.0      1      0
S            11      0     3  male  35.0      0      0
S            12      1     1  female  35.0      1      0
S            13      0     3  male  35.0      0      0
S            14      1     1  female  35.0      1      0
S            15      0     3  male  35.0      0      0
S            16      1     1  female  35.0      1      0
S            17      0     3  male  35.0      0      0
S            18      1     1  female  35.0      1      0
S            19      0     3  male  35.0      0      0
S            20      1     1  female  35.0      1      0
S            21      0     3  male  35.0      0      0
S            22      1     1  female  35.0      1      0
S            23      0     3  male  35.0      0      0
S            24      1     1  female  35.0      1      0
S            25      0     3  male  35.0      0      0
S            26      1     1  female  35.0      1      0
S            27      0     3  male  35.0      0      0
S            28      1     1  female  35.0      1      0
S            29      0     3  male  35.0      0      0
S            30      1     1  female  35.0      1      0
S            31      0     3  male  35.0      0      0
S            32      1     1  female  35.0      1      0
S            33      0     3  male  35.0      0      0
S            34      1     1  female  35.0      1      0
S            35      0     3  male  35.0      0      0
S            36      1     1  female  35.0      1      0
S            37      0     3  male  35.0      0      0
S            38      1     1  female  35.0      1      0
S            39      0     3  male  35.0      0      0
S            40      1     1  female  35.0      1      0
S            41      0     3  male  35.0      0      0
S            42      1     1  female  35.0      1      0
S            43      0     3  male  35.0      0      0
S            44      1     1  female  35.0      1      0
S            45      0     3  male  35.0      0      0
S            46      1     1  female  35.0      1      0
S            47      0     3  male  35.0      0      0
S            48      1     1  female  35.0      1      0
S            49      0     3  male  35.0      0      0
S            50      1     1  female  35.0      1      0
S            51      0     3  male  35.0      0      0
S            52      1     1  female  35.0      1      0
S            53      0     3  male  35.0      0      0
S            54      1     1  female  35.0      1      0
S            55      0     3  male  35.0      0      0
S            56      1     1  female  35.0      1      0
S            57      0     3  male  35.0      0      0
S            58      1     1  female  35.0      1      0
S            59      0     3  male  35.0      0      0
S            60      1     1  female  35.0      1      0
S            61      0     3  male  35.0      0      0
S            62      1     1  female  35.0      1      0
S            63      0     3  male  35.0      0      0
S            64      1     1  female  35.0      1      0
S            65      0     3  male  35.0      0      0
S            66      1     1  female  35.0      1      0
S            67      0     3  male  35.0      0      0
S            68      1     1  female  35.0      1      0
S            69      0     3  male  35.0      0      0
S            70      1     1  female  35.0      1      0
S            71      0     3  male  35.0      0      0
S            72      1     1  female  35.0      1      0
S            73      0     3  male  35.0      0      0
S            74      1     1  female  35.0      1      0
S            75      0     3  male  35.0      0      0
S            76      1     1  female  35.0      1      0
S            77      0     3  male  35.0      0      0
S            78      1     1  female  35.0      1      0
S            79      0     3  male  35.0      0      0
S            80      1     1  female  35.0      1      0
S            81      0     3  male  35.0      0      0
S            82      1     1  female  35.0      1      0
S            83      0     3  male  35.0      0      0
S            84      1     1  female  35.0      1      0
S            85      0     3  male  35.0      0      0
S            86      1     1  female  35.0      1      0
S            87      0     3  male  35.0      0      0
S            88      1     1  female  35.0      1      0
S            89      0     3  male  35.0      0      0
S            90      1     1  female  35.0      1      0
S            91      0     3  male  35.0      0      0
S            92      1     1  female  35.0      1      0
S            93      0     3  male  35.0      0      0
S            94      1     1  female  35.0      1      0
S            95      0     3  male  35.0      0      0
S            96      1     1  female  35.0      1      0
S            97      0     3  male  35.0      0      0
S            98      1     1  female  35.0      1      0
S            99      0     3  male  35.0      0      0
S            100     1     1  female  35.0      1      0
S            101     0     3  male  35.0      0      0
S            102     1     1  female  35.0      1      0
S            103     0     3  male  35.0      0      0
S            104     1     1  female  35.0      1      0
S            105     0     3  male  35.0      0      0
S            106     1     1  female  35.0      1      0
S            107     0     3  male  35.0      0      0
S            108     1     1  female  35.0      1      0
S            109     0     3  male  35.0      0      0
S            110     1     1  female  35.0      1      0
S            111     0     3  male  35.0      0      0
S            112     1     1  female  35.0      1      0
S            113     0     3  male  35.0      0      0
S            114     1     1  female  35.0      1      0
S            115     0     3  male  35.0      0      0
S            116     1     1  female  35.0      1      0
S            117     0     3  male  35.0      0      0
S            118     1     1  female  35.0      1      0
S            119     0     3  male  35.0      0      0
S            120     1     1  female  35.0      1      0
S            121     0     3  male  35.0      0      0
S            122     1     1  female  35.0      1      0
S            123     0     3  male  35.0      0      0
S            124     1     1  female  35.0      1      0
S            125     0     3  male  35.0      0      0
S            126     1     1  female  35.0      1      0
S            127     0     3  male  35.0      0      0
S            128     1     1  female  35.0      1      0
S            129     0     3  male  35.0      0      0
S            130     1     1  female  35.0      1      0
S            131     0     3  male  35.0      0      0
S            132     1     1  female  35.0      1      0
S            133     0     3  male  35.0      0      0
S            134     1     1  female  35.0      1      0
S            135     0     3  male  35.0      0      0
S            136     1     1  female  35.0      1      0
S            137     0     3  male  35.0      0      0
S            138     1     1  female  35.0      1      0
S            139     0     3  male  35.0      0      0
S            140     1     1  female  35.0      1      0
S            141     0     3  male  35.0      0      0
S            142     1     1  female  35.0      1      0
S            143     0     3  male  35.0      0      0
S            144     1     1  female  35.0      1      0
S            145     0     3  male  35.0      0      0
S            146     1     1  female  35.0      1      0
S            147     0     3  male  35.0      0      0
S            148     1     1  female  35.0      1      0
S            149     0     3  male  35.0      0      0
S            150     1     1  female  35.0      1      0
S            151     0     3  male  35.0      0      0
S            152     1     1  female  35.0      1      0
S            153     0     3  male  35.0      0      0
S            154     1     1  female  35.0      1      0
S            155     0     3  male  35.0      0      0
S            156     1     1  female  35.0      1      0
S            157     0     3  male  35.0      0      0
S            158     1     1  female  35.0      1      0
S            159     0     3  male  35.0      0      0
S            160     1     1  female  35.0      1      0
S            161     0     3  male  35.0      0      0
S            162     1     1  female  35.0      1      0
S            163     0     3  male  35.0      0      0
S            164     1     1  female  35.0      1      0
S            165     0     3  male  35.0      0      0
S            166     1     1  female  35.0      1      0
S            167     0     3  male  35.0      0      0
S            168     1     1  female  35.0      1      0
S            169     0     3  male  35.0      0      0
S            170     1     1  female  35.0      1      0
S            171     0     3  male  35.0      0      0
S            172     1     1  female  35.0      1      0
S            173     0     3  male  35.0      0      0
S            174     1     1  female  35.0      1      0
S            175     0     3  male  35.0      0      0
S            176     1     1  female  35.0      1      0
S            177     0     3  male  35.0      0      0
S            178     1     1  female  35.0      1      0
S            179     0     3  male  35.0      0      0
S            180     1     1  female  35.0      1      0
S            181     0     3  male  35.0      0      0
S            182     1     1  female  35.0      1      0
S            183     0     3  male  35.0      0      0
S            184     1     1  female  35.0      1      0
S            185     0     3  male  35.0      0      0
S            186     1     1  female  35.0      1      0
S            187     0     3  male  35.0      0      0
S            188     1     1  female  35.0      1      0
S            189     0     3  male  35.0      0      0
S            190     1     1  female  35.0      1      0
S            191     0     3  male  35.0      0      0
S            192     1     1  female  35.0      1      0
S            193     0     3  male  35.0      0      0
S            194     1     1  female  35.0      1      0
S            195     0     3  male  35.0      0      0
S            196     1     1  female  35.0      1      0
S            197     0     3  male  35.0      0      0
S            198     1     1  female  35.0      1      0
S            199     0     3  male  35.0      0      0
S            200     1     1  female  35.0      1      0
S            201     0     3  male  35.0      0      0
S            202     1     1  female  35.0      1      0
S            203     0     3  male  35.0      0      0
S            204     1     1  female  35.0      1      0
S            205     0     3  male  35.0      0      0
S            206     1     1  female  35.0      1      0
S            207     0     3  male  35.0      0      0
S            208     1     1  female  35.0      1      0
S            209     0     3  male  35.0      0      0
S            210     1     1  female  35.0      1      0
S            211     0     3  male  35.0      0      0
S            212     1     1  female  35.0      1      0
S            213     0     3  male  35.0      0      0
S            214     1     1  female  35.0      1      0
S            215     0     3  male  35.0      0      0
S            216     1     1  female  35.0      1      0
S            217     0     3  male  35.0      0      0
S            218     1     1  female  35.0      1      0
S            219     0     3  male  35.0      0      0
S            220     1     1  female  35.0      1      0
S            221     0     3  male  35.0      0      0
S            222     1     1  female  35.0      1      0
S            223     0     3  male  35.0      0      0
S            224     1     1  female  35.0      1      0
S            225     0     3  male  35.0      0      0
S            226     1     1  female  35.0      1      0
S            227     0     3  male  35.0      0      0
S            228     1     1  female  35.0      1      0
S            229     0     3  male  35.0      0      0
S            230     1     1  female  35.0      1      0
S            231     0     3  male  35.0      0      0
S            232     1     1  female  35.0      1      0
S            233     0     3  male  35.0      0      0
S            234     1     1  female  35.0      1      0
S            235     0     3  male  35.0      0      0
S            236     1     1  female  35.0      1      0
S            237     0     3  male  35.0      0      0
S            238     1     1  female  35.0      1      0
S            239     0     3  male  35.0      0      0
S            240     1     1  female  35.0      1      0
S            241     0     3  male  35.0      0      0
S            242     1     1  female  35.0      1      0
S            243     0     3  male  35.0      0      0
S            244     1     1  female  35.0      1      0
S            245     0     3  male  35.0      0      0
S            246     1     1  female  35.0      1      0
S            247     0     3  male  35.0      0      0
S            248     1     1  female  35.0      1      0
S            249     0     3  male  35.0      0      0
S            250     1     1  female  35.0      1      0
S            251     0     3  male  35.0      0      0
S            252     1     1  female  35.0      1      0
S            253     0     3  male  35.0      0      0
S            254     1     1  female  35.0      1      0
S            255     0     3  male  35.0      0      0
S            256     1     1  female  35.0      1      0
S            257     0     3  male  35.0      0      0
S            258     1     1  female  35.0      1      0
S            259     0     3  male  35.0      0      0
S            260     1     1  female  35.0      1      0
S            261     0     3  male  35.0      0      0
S            262     1     1  female  35.0      1      0
S            263     0     3  male  35.0      0      0
S            264     1     1  female  35.0      1      0
S            265     0     3  male  35.0      0      0
S            266     1     1  female  35.0      1      0
S            267     0     3  male  35.0      0      0
S            268     1     1  female  35.0      1      0
S            269     0     3  male  35.0      0      0
S            270     1     1  female  35.0      1      0
S            271     0     3  male  35.0      0      0
S            272     1     1  female  35.0      1      0
S            273     0     3  male  35.0      0      0
S            274     1     1  female  35.0      1      0
S            275     0     3  male  35.0      0      0
S            276     1     1  female  35.0      1      0
S            277     0     3  male  35.0      0      0
S            278     1     1  female  35.0      1      0
S            279     0     3  male  35.0      0      0
S            280     1     1  female  35.0      1      0
S            281     0     3  male  35.0      0      0
S            282     1     1  female  35.0      1      0
S            283     0     3  male  35.0      0      0
S            284     1     1  female  35.0      1      0
S            285     0     3  male  35.0      0      0
S            286     1     1  female  35.0      1      0
S            287     0     3  male  35.0      0      0
S            288     1     1  female  35.0      1      0
S            289     0     3  male  35.0      0      0
S            290     1     1  female  35.0      1      0
S            291     0     3  male  35.0      0      0
S            292     1     1  female  35.0      1      0
S            293     0     3  male  35.0      0      0
S            294     1     1  female  35.0      1      0
S            295     0     3  male  35.0      0      0
S            296     1     1  female  35.0      1      0
S            297     0     3  male  35.0      0      0
S            298     1     1  female  35.0      1      0
S            299     0     3  male  35.0      0      0
S            300     1     1  female  35.0      1      0
S            301     0     3  male  35.0      0      0
S            302     1     1  female  35.0      1      0
S            303     0     3  male  35.0      0      0
S            304     1     1  female  35.0      1      0
S            305     0     3  male  35.0      0      0
S            306     1     1  female  35.0      1      0
S            307     0     3  male  35.0      0      0
S            308     1     1  female  35.0      1      0
S            309     0     3  male  35.0      0      0
S            310     1     1  female  35.0      1      0
S            311     0     3  male  35.0      0      0
S            312     1     1  female  35.0      1      0
S            313     0     3  male  35.0      0      0
S            314     1     1  female  35.0      1      0
S            315     0     3  male  35.0      0      0
S            316     1     1  female  35.0      1      0
S            317     0     3  male  35.0      0      0
S            318     1     1  female  35.0      1      0
S            319     0     3  male  35.0      0      0
S            320     1     1  female  35.0      1      0
S            321     0     3  male  35.0      0      0
S            322     1     1  female  35.0      1      0
S            323     0     3  male  35.0      0      0
S            324     1     1  female  35.0      1      0
S            325     0     3  male  35.0      0      0
S            326     1     1  female  35.0      1      0
S            327     0     3  male  35.0      0      0
S            328     1     1  female  35.0      1      0
S            329     0     3  male  35.0      0      0
S            330     1     1  female  35.0      1      0
S            331     0     3  male  35.0      0      0
S            332     1     1  female  35.0      1      0
S            333     0     3  male  35.0      0      0
S            334     1     1  female  35.0      1      0
S            335     0     3  male  35.0      0      0
S            336     1     1  female  35.0      1      0
S            337     0     3  male  35.0      0      0
S            338     1     1  female  35.0      1      0
S            339     0     3  male  35.0      0      0
S            340     1     1  female  35.0      1      0
S            341     0     3  male  35.0      0      0
S            342     1     1  female  35.0      1      0
S            343     0     3  male  35.0      0      0
S            344     1     1  female  35.0      1      0
S            345     0     3  male  35.0      0      0
S            346     1     1  female  35.0      1      0
S            347     0     3  male  35.0      0      0
S            348     1     1  female  35.0      1      0
S            349     0     3  male  35.0      0      0
S            350     1     1  female  35.0      1      0
S            351     0     3  male  35.0      0      0
S            352     1     1  female  35.0      1      0
S            353     0     3  male  35.0      0      0
S            354     1     1  female  35.0      1      0
S            355     0     3  male  35.0      0      0
S            356     1     1  female  35.0      1      0
S            357     0     3  male  35.0      0      0
S            358     1     1  female  35.0      1      0
S            359     0     3  male  35.0      0      0
S            360     1     1  female  35.0      1      0
S            361     0     3  male  35.0      0      0
S            362     1     1  female  35.0      1      0
S            363     0     3  male  35.0      0      0
S            364     1     1  female  35.0      1      0
S            365     0     3  male  35.0      0      0
S            366     1     1  female  35.0      1      0
S            367     0     3  male  35.0      0      0
S            368     1     1  female  35.0      1      0
S            369     0     3  male  35.0      0      0
S            370     1     1  female  35.0      1      0
S            371     0     3  male  35.0      0      0
S            372     1     1  female  35.0      1      0
S            373     0     3  male  35.0      0      0
S            374     1     1  female  35.0      1      0
S            375     0     3  male  35.0      0      0
S            376     1     1  female  35.0      1      0
S            377     0     3  male  35.0      0      0
S            378     1     1  female  35.0      1      0
S            379     0     3  male  35.0      0      0
S            380     1     1  female  35.0      1      0
S            381     0     3  male  35.0      0      0
S            382     1     1  female  35.0      1      0
S            383     0     3  male  35.0      0      0
S            384     1     1  female  35.0      1      0
S            385     0     3  male  35.0      0      0
S            386     1     1  female  35.0      1      0
S            387     0     3  male  35.0      0      0
S            388     1     1  female  35.0      1      0
S            389     0     3  male  35.0      0      0
S            390     1     1  female  35.0      1      0
S            391     0     3  male  35.0      0      0
S            392     1     1  female  35.0      1      0
S            393     0     3  male  35.0      0      0
S            394     1     1  female  35.0      1      0
S            395     0     3  male  35.0      0      0
S            396     1     1  female  35.0      1      0
S            397     0     3  male  35.0      0      0
S            398     1     1  female  35.0      1      0
S            399
```

The screenshot shows a Jupyter Notebook interface with the following components:

- File Bar:** File, Edit, Search, Source, Run, Debug, Consoles, Projects, Tools, View, Help.
- File Explorer:** Shows files: temp.py, SLR_housePrice.py, and untitled1.py*.
- Code Editor:** Displays Python code for data cleaning and transformation of the Titanic dataset.
- Variable Explorer:** Shows a DataFrame named "dataset" with 891 rows and 12 columns.
- Console:** Displays the execution of a cell (In [21]) which defines a function to map gender values and applies it to the dataset.
- Data Preview:** Shows the first few rows of the transformed dataset.
- Output Cell:** Displays the result of the previous cell's execution (Out [21]).
- Bottom Status Bar:** conda: base (Python 3.10.9) Completions: conda LSP: Python Line 33, Col 15 UTF-8 CRLF RW Men

```
2
3     import pandas as pd
4     import numpy as np
5
6     titanic=pd.read_csv(r'C:\Users\yogay\OneDrive\Desktop\Yogita_Yadav\Data Science\1st\Titanic-
7
8     titanic.tail()
9
10    titanic.describe()
11
12    del titanic["Name"]
13    titanic.head()
14
15    del titanic["Ticket"]
16    titanic.head()
17
18    del titanic["Fare"]
19    titanic.head()
20
21    del titanic["Cabin"]
22    titanic.head()
23
24    # Changing Value for "Male, Female" string values to numeric values , male=1 and female=2
25    def getNumber(str):
26        if str=="male":
27            return 1
28        else:
29            return 2
30    titanic["Gender"]=titanic["Sex"].apply(getNumber)
31    #We have created a new column called "Gender" and
32    #filling it with values 1,2 based on the values of sex column
33    titanic.head()
```

```
In [21]:
...: def getNumber(str):
...:     if str=="male":
...:         return 1
...:     else:
...:         return 2
...: titanic["Gender"]=titanic["Sex"].apply(getNumber)
...: #We have created a new column called "Gender" and
...: #filling it with values 1,2 based on the values of sex
...: column
...: titanic.head()
Out[21]:
PassengerId  Survived  Pclass  Sex  Age  SibSp  Parch
Embarked  Gender
0           S       1      0   male  22.0     1     0
1           1       2      1 female  38.0     1     0
C           2       3      1   female  26.0     0     0
2           S       2      3 female  35.0     1     0
3           S       2      4 female  35.0     1     0
4           S       2      5   male  35.0     0     0
5           1       1      0   male  22.0     1     0
```

The screenshot shows a Windows desktop environment with a Python development setup in Visual Studio Code (VS Code). The interface includes:

- File Bar:** File, Edit, Search, Source, Run, Debug, Consoles, Projects, Tools, View, Help.
- File Explorer:** Shows files: temp.py, SLR_housePrice.py, and untitled1.py*.
- Code Editor:** Displays Python code for data cleaning and transformation of the Titanic dataset. The code includes reading the CSV file, tailing the dataset, describing it, dropping columns like Name, Ticket, Fare, and Cabin, and creating a new 'Gender' column based on the 'Sex' column. It also applies a function 'getNumber' to map 'male' and 'female' to numeric values 1 and 2 respectively.
- Variable Explorer:** Shows the 'dataset' DataFrame with 891 rows and 12 columns.
- Console:** Displays the output of running the code, specifically the head of the dataset.
- Taskbar:** Shows icons for File Explorer, File History, Task View, Start, Taskbar settings, and a search bar.
- System Tray:** Shows battery level at 6%, system temperature at 20°C, and a date/time stamp of 03-11-2023 00:44.

The screenshot shows the Spyder Python IDE interface. The code editor displays a script named `titanic.ipynb` containing code to load the Titanic dataset, handle categorical variables like gender and sex, and calculate missing values. The variable explorer shows the `titanic` DataFrame with 891 rows and 12 columns. The IPython console shows the execution of code to count missing values, resulting in 177 missing values for the Age column.

```
7 titanic.tail()
8 titanic.describe()
9
10 del titanic["Name"]
11 titanic.head()
12
13 del titanic["Ticket"]
14 titanic.head()
15
16 del titanic["Fare"]
17 titanic.head()
18
19 del titanic["Cabin"]
20 titanic.head()
21
22 # Changing Value for "Male, Female" string values to numeric values , male=1 and female=2
23 def getNumber(str):
24     if str=="male":
25         return 1
26     else:
27         return 2
28 titanic[ "Gender" ]=titanic[ "Sex" ].apply(getNumber)
29 #We have created a new column called "Gender" and
30 #filling it with values 1,2 based on the values of sex column
31 titanic.head()
32
33 del titanic[ "Sex" ]
34 titanic.head()
35
36 titanic.isnull().sum()
37
38 titanic.isnull().sum()
```

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names:

```
In [23]: titanic.isnull().sum()
Out[23]:
PassengerId    0
Survived       0
Pclass          0
Age           177
SibSp          0
Parch          0
Embarked        2
Gender          0
dtype: int64

In [24]:
```

The screenshot shows the Spyder IDE interface with the following details:

- Title Bar:** Spyder (Python 3.10)
- File Menu:** File Edit Search Source Run Debug Consoles Projects Tools View Help
- Toolbar:** Includes icons for file operations like Open, Save, Run, and Stop.
- Path Bar:** C:\Users\yogay
- Code Editor:** Displays a script named `untitled1.py*` containing Python code for data manipulation and analysis. The code includes:
 - Importing the `titanic` dataset.
 - Describing the dataset.
 - Deleting columns `Name`, `Ticket`, `Fare`, and `Cabin`.
 - Converting `Male` and `Female` string values to numeric values (1 and 2).
 - Creating a new column `Gender` based on the `Sex` column.
 - Calculating the mean age for survivors.
- Variable Explorer:** Shows the `titanic` DataFrame with 891 rows and 12 columns. Column names are listed as `PassengerId`, `Survived`, `Pclass`, `Age`, `SibSp`, `Parch`, `Embarked`, and `Gender`.
- Console:** Displays the output of several IPython commands:
 - `titanic.isnull().sum()`: Shows the count of missing values for each column.
 - `meanS = titanic[titanic.Survived==1].Age.mean()`: Calculates the mean age for survivors.
 - `meanS`: Prints the calculated mean age.
- System Tray:** Shows system information including conda version, LSP, and system status.
- Taskbar:** Shows icons for various applications like File Explorer, Edge, Mail, and Google Chrome.

The screenshot shows a Jupyter Notebook interface with the following details:

- File Bar:** File Edit Search Source Run Debug Consoles Projects Tools View Help
- Path:** C:\Users\yogay\OneDrive\Desktop\untitled1.py
- Code Editor:** The code is written in Python, specifically for the Titanic dataset. It includes:
 - Handling missing values in 'Ticket' and 'Fare' columns.
 - Creating a new 'Gender' column from the 'Sex' column.
 - Replacing 'Male' and 'Female' string values with numeric values (1 and 0).
 - Calculating the mean age for survived passengers.
 - Filling missing age values with the mean age for survivors.
- Variable Explorer:** Shows the DataFrame 'dataset' with 891 rows and 12 columns. Columns include 'Pclass', 'Embarked', 'Gender', and 'Age'.
- Console:** Displays the output of the executed code. It includes:
 - In [24]: meanS = titanic[titanic.Survived==1].Age.mean()
 - Out[24]: 28.343689655172415
 - In [25]: titanic["age"] = np.where(pd.isnull(titanic.Age) & titanic["Survived"]==1, meanS, titanic["Age"])
 - Out[25]: A table showing the first few rows of the modified titanic DataFrame.
 - In [26]:
- System Status:** conda: base (Python 3.10.9) Completions: conda LSP: Python Line 44, Col 15 UTF-8 CRLF RW Mem 8
- Search Bar:** Type here to search

Spyder (Python 3.10)

File Edit Search Source Run Debug Consoles Projects Tools View Help

C:\Users\yogay\OneDrive\Desktop\untitled1.py

```

19 titanic.head()
20
21 del titanic["Cabin"]
titanic.head()
23
24 # Changing Value for "Male, Female" string values to numeric values , male=1 and female=2
25 def getNumber(str):
26     if str=="male":
27         return 1
28     else:
29         return 2
titanic["Gender"] = titanic["Sex"].apply(getNumber)
#We have created a new column called "Gender" and
#filling it with values 1,2 based on the values of sex column
titanic.head()
34
35 del titanic["Sex"]
titanic.head()
37
38 titanic.isnull().sum()
39
40 meanS = titanic[titanic.Survived==1].Age.mean()
meanS
42
43 titanic["age"] = np.where(pd.isnull(titanic.Age) & titanic["Survived"]==1 ,meanS, titanic["A
titanic.head()
45
46 titanic.isnull().sum()
47
48 meanNS=titanic[titanic.Survived==0].Age.mean()
meanNS
50

```

Variable Explorer Help Plots Files

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names: [
meanNS	float64	1	[0.626179245283]
meanS	float64	1	[28.34368965517]
pred	Array of float64	(7205,) [362473.73011]
price	Series	(21613,) Series object	
regressor	linear_model._base.LinearRegression	1	LinearRegression
space	Series	(21613,) Series object	
titanic	DataFrame	(891, 9)	Column names: [
x	Array of int64	(21613, 1) [[1180]	[2570]
xtest	Array of int64	(7205, 1) [[1430]	[4670]
xtrain	Array of int64	(14408, 1) [[1260]	[1320]

Console 1/A X

1	2	1	1	38.0	1	0	L
2	38.0	3	1	3	26.0	0	S
2	26.0	4	1	1	35.0	1	0
3	35.0	5	0	3	35.0	0	S
4							

IPython Console History

conda: base (Python 3.10.9) Completions: conda LSP: Python Line 49, Col 7 UTF-8 CRLF RW Mem 80

Spyder (Python 3.10)

File Edit Search Source Run Debug Consoles Projects Tools View Help

C:\Users\yogay\OneDrive\Desktop\untitled1.py

```

41 meanS
42 titanic["age"] = np.where(pd.isnull(titanic.Age) & titanic["Survived"] == 1, meanS, titanic["Age"])
43 titanic.head()
44
45 titanic.isnull().sum()
46
47 meanNS = titanic[titanic.Survived == 0].Age.mean()
48 meanNS
49
50 titanic.age.fillna(meanNS, inplace=True)
51 titanic.head()
52
53 titanic.isnull().sum()
54
55 del titanic['Age']
56 titanic.head()
57
58 survivedQ = titanic[titanic.Embarked == 'Q'][titanic.Survived == 1].shape[0]
59 survivedC = titanic[titanic.Embarked == 'C'][titanic.Survived == 1].shape[0]
60 survivedS = titanic[titanic.Embarked == 'S'][titanic.Survived == 1].shape[0]
61
62 print(survivedQ)
63 print(survivedC)
64 print(survivedS)
65
66 survivedQ = titanic[titanic.Embarked == 'Q'][titanic.Survived == 0].shape[0]
67 survivedC = titanic[titanic.Embarked == 'C'][titanic.Survived == 0].shape[0]
68 survivedS = titanic[titanic.Embarked == 'S'][titanic.Survived == 0].shape[0]
69
70 print(survivedQ)
71 print(survivedC)
72 print(survivedS)
73

```

Variable Explorer Help Plots Files

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names: P... ...
meanNS	float64	1	30.626179245283
meanS	float64	1	28.343689655172
pred	Array of float64	(7205,)	[362473.730119
price	Series	(21613,)	Series object c...
regressor	linear_model._base.LinearRegression	1	LinearRegres...
space	Series	(21613,)	Series object c...
survivedC	int	1	75
survivedQ	int	1	47

Console 1/A

```

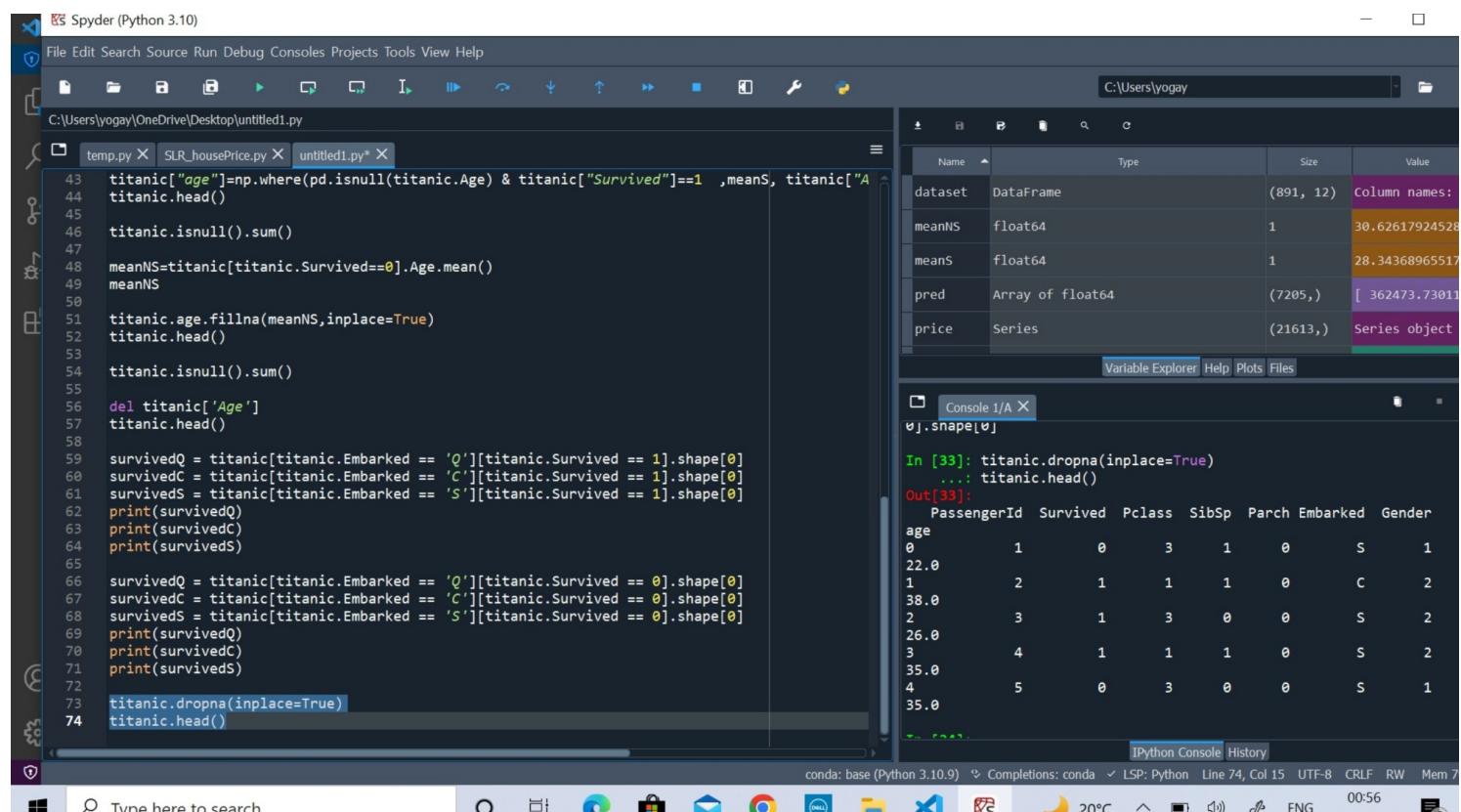
41
42     survivedQ = titanic[titanic.Embarked == 'Q'][titanic.Survived == 1].shape[0]
43     survivedC = titanic[titanic.Embarked == 'C'][titanic.Survived == 1].shape[0]
44     survivedS = titanic[titanic.Embarked == 'S'][titanic.Survived == 1].shape[0]
45
46     print(survivedQ)
47     print(survivedC)
48     print(survivedS)
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73

```

IPython Console History

conda: base (Python 3.10.9) Completions: conda LSP: Python Line 73, Col 1 UTF-8 CRLF RW Mem 79

00:56 03-11-2023



Spyder (Python 3.10)

File Edit Search Source Run Debug Consoles Projects Tools View Help

C:\Users\yogay\OneDrive\Desktop\untitled1.py

temp.py X SLR_housePrice.py X untitled1.py*

```
43 titanic["age"] = np.where(pd.isnull(titanic.Age) & titanic["Survived"]==1 ,meanS, titanic["A
44 titanic.head()
45
46 titanic.isnull().sum()
47
48 meanNS=titanic[titanic.Survived==0].Age.mean()
49 meanNS
50
51 titanic.age.fillna(meanNS,inplace=True)
52 titanic.head()
53
54 titanic.isnull().sum()
55
56 del titanic['Age']
57 titanic.head()
58
59 survivedQ = titanic[titanic.Embarked == 'Q'][titanic.Survived == 1].shape[0]
60 survivedC = titanic[titanic.Embarked == 'C'][titanic.Survived == 1].shape[0]
61 survivedS = titanic[titanic.Embarked == 'S'][titanic.Survived == 1].shape[0]
62 print(survivedQ)
63 print(survivedC)
64 print(survivedS)
65
66 survivedQ = titanic[titanic.Embarked == 'Q'][titanic.Survived == 0].shape[0]
67 survivedC = titanic[titanic.Embarked == 'C'][titanic.Survived == 0].shape[0]
68 survivedS = titanic[titanic.Embarked == 'S'][titanic.Survived == 0].shape[0]
69 print(survivedQ)
70 print(survivedC)
71 print(survivedS)
72
73 titanic.dropna(inplace=True)
74 titanic.head()
```

C:\Users\yogay

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names:
meanNS	float64	1	30.62617924528
meanS	float64	1	28.34368965517
pred	Array of float64	(7205,)	[362473.73011
price	Series	(21613,)	Series object

Variable Explorer Help Plots Files

Console 1/A X

In [33]: titanic.dropna(inplace=True)
...: titanic.head()

Out[33]:

	PassengerId	Survived	Pclass	SibSp	Parch	Embarked	Gender	age
0	1	0	3	1	0	S	1	22.0
1	2	1	1	1	0	C	2	38.0
2	3	1	3	0	0	S	2	26.0
3	4	1	1	1	0	S	2	35.0
4	5	0	3	0	0	S	1	35.0

IPython Console History

conda; base (Python 3.10.9) Completions: conda LSP: Python Line 74, Col 15 UTF-8 CRLF RW Mem 7

The screenshot shows a Windows desktop with a Python development environment open. The interface includes:

- File Explorer:** Shows files like `temp.py`, `SLR_housePrice.py`, and `untitled1.py*`.
- Code Editor:** Displays Python code for data manipulation on the Titanic dataset.
- Variable Explorer:** A table showing variables and their properties:

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names: [PassengerId, Survived, Pclass, Name, Sex, Age, SibSp, Parch, Ticket, Fare, Cabin, Embarked]
meanNS	float64	1	30.62617924528
meanS	float64	1	28.34368965517
pred	Array of float64	(7205,)	[362473.73011 ...]
price	Series	(21613,)	Series object

- Console:** An IPython console showing command-line interactions:

```
In [34]: titanic.isnull().sum()
Out[34]:
PassengerId    0
Survived       0
Pclass          0
SibSp          0
Parch          0
Embarked       0
Gender          0
age             0
dtype: int64

In [35]:
```

- System Taskbar:** Shows icons for File Explorer, Edge, File Manager, Mail, Google Chrome, Dell, and a task switcher.
- System Tray:** Shows battery level (00:57), temperature (20°C), language (ENG), and date (03-11-2023).

The screenshot shows a Python development environment with the following components:

- File Explorer:** Shows files: temp.py, SLR_housePrice.py, and untitled1.py*.
- Code Editor:** Displays the content of `untitled1.py*`. The code performs the following steps:
 - Calculates mean survival rates for each class (Q, C, S).
 - Replaces missing age values with the mean for each class.
 - Prints the head of the titanic dataset.
 - Prints the sum of null values.
 - Changes the column name 'Age' to 'Age'.
 - Prints the head of the titanic dataset again.
- Variable Explorer:** Shows variables and their types:

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names: dataset
meanNS	float64	1	30.62617924528
meanS	float64	1	28.3436896551
pred	Array of float64	(7205,)	[362473.73011
price	Series	(21613,)	Series object
- Console:** Shows the execution of code cells:

```
In [35]: titanic.rename(columns={'age':'Age'}, inplace=True)
...: titanic.head()
Out[35]:
   PassengerId  Survived  Pclass  SibSp  Parch Embarked  Gender
Age
0            1        0       3      1      0        S      1
22.0
1            2        1       1      1      0        C      2
38.0
2            3        1       3      0      0        S      2
26.0
3            4        1       1      1      0        S      2
35.0
4            5        0       3      0      0        S      1
35.0
```

```
In [36]:
```
- System Tray:** Shows system information: conda: base (Python 3.10.9), Completions: conda, LSP: Python, Line 79, Col 15, UTF-8, CRLF, RW, Mem 8000, 20°C, ENG, 00:57.

The screenshot shows the Spyder Python IDE interface. The code editor on the left contains Python code for data cleaning and analysis on the Titanic dataset. The variable explorer in the top right shows the types and values of variables like dataset (DataFrame), meanNS (float64), pred (Array of float64), and price (Series). The bottom right shows the IPython console output, including the command to rename columns and the resulting DataFrame.

```
51 titanic.age.fillna(meanNS,inplace=True)
52 titanic.head()
53
54 titanic.isnull().sum()
55
56 del titanic['Age']
57 titanic.head()
58
59 survivedQ = titanic[titanic.Embarked == 'Q'][titanic.Survived == 1].shape[0]
60 survivedC = titanic[titanic.Embarked == 'C'][titanic.Survived == 1].shape[0]
61 survivedS = titanic[titanic.Embarked == 'S'][titanic.Survived == 1].shape[0]
62 print(survivedQ)
63 print(survivedC)
64 print(survivedS)
65
66 survivedQ = titanic[titanic.Embarked == 'Q'][titanic.Survived == 0].shape[0]
67 survivedC = titanic[titanic.Embarked == 'C'][titanic.Survived == 0].shape[0]
68 survivedS = titanic[titanic.Embarked == 'S'][titanic.Survived == 0].shape[0]
69 print(survivedQ)
70 print(survivedC)
71 print(survivedS)
72
73 titanic.dropna(inplace=True)
74 titanic.head()
75
76 titanic.isnull().sum()
77
78 titanic.rename(columns={'age':'Age'}, inplace=True)
79 titanic.head()
80
81 titanic.rename(columns={'Gender':'Sex'}, inplace=True)
82 titanic.head()
```

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names:
meanNS	float64	1	30.62617924528
meanS	float64	1	28.34368965517
pred	Array of float64	(7205,)	[362473.7301
price	Series	(21613,)	Series object

In [36]: titanic.rename(columns={'Gender': 'Sex'}, inplace=True)
...: titanic.head()
Out[36]:

PassengerId	Survived	Pclass	SibSp	Parch	Embarked	Sex	Age
0	1	0	3	1	0	S	1 22.0
1	2	1	1	1	0	C	2 38.0
2	3	1	3	0	0	S	2 26.0
3	4	1	1	1	0	S	2 35.0
4	5	0	3	0	0	S	1 35.0

In [37]:

The screenshot shows a Jupyter Notebook interface with several panes:

- Code Editor:** Displays Python code for data processing, including filtering by Embarked ('S', 'Q', 'C'), dropping NaN values, and renaming columns ('age' to 'Age' and 'Gender' to 'Sex'). It also defines a function 'getEmb' to map embarkation codes to integers (1, 2, 3) and applies it to the 'Embarked' column.
- Variable Explorer:** Shows a table of variables with their types, sizes, and values. Key entries include 'dataset' (DataFrame), 'meanNS' (float64), 'meanS' (float64), 'pred' (Array of float64), and 'price' (Series).
- Console:** Displays the output of the code execution. It includes a cell header 'In [37]:', the executed code, and the resulting DataFrame 'Out[37]'. The DataFrame has columns: PassengerId, Survived, Pclass, SibSp, Parch, Embarked, Sex, Age, and Embark. The first few rows show data points for passengers 0 through 1.
- Bottom Status Bar:** Provides system information: conda: base (Python 3.10.9), Completions: conda, LSP: Python, Line 92, Col 15, UTF-8, CRLF, RW, Mem, and a timestamp: 00:59 03-11-2023.

The screenshot shows a Jupyter Notebook interface with the following components:

- File Bar:** File, Edit, Search, Source, Run, Debug, Consoles, Projects, Tools, View, Help.
- File Explorer:** Shows files: temp.py, SLR_housePrice.py, and untitled1.py*.
- Code Editor:** Displays Python code for data manipulation, including filtering by Embarked ('Q', 'C', 'S'), dropping null values, renaming columns ('Age' to 'Age', 'Gender' to 'Sex'), creating a function 'getEmb' to map Embarked values ('S', 'C', 'Q' to 1, 2, 3), applying it to the dataset, and finally renaming 'Embarck' to 'Embarke'. The code also includes a print statement for survived counts.
- Variable Explorer:** A table showing variables and their properties:

Name	Type	Size	Value
dataset	DataFrame	(891, 12)	Column names: [30.62617924528, 28.34368965517, ...]
meanNS	float64	1	30.62617924528
meanS	float64	1	28.34368965517
pred	Array of float64	(7205,)	[362473.73017, ...]
price	Series	(21613,)	Series object
- Console:** Shows the command to delete the 'Embarked' column and its effect on the dataset.

```
In [38]: del titanic['Embarked']
...: titanic.rename(columns={'Embark':'Embarke'}, inplace=True)
...: titanic.head()
Out[38]:
   PassengerId  Survived  Pclass  SibSp  Parch  Sex  Age  Embarke
0            1         0       3      1      0    1  22.0
1            2         1       1      1      0    0  28.0
2            3         1       3      0      0    2  26.0
3            4         1       1      1      0    2  35.0
4            5         0       3      0      0    1  35.0
```
- Bottom Status Bar:** Run selection or current line, IPython Console, History, conda: base (Python 3.10.9), Completions: conda, LSP: Python, Line 96, Col 15, UTF-8, CRLF, RW, Mem 7, 20°C, ENG, 00:59.

File Edit Search Source Run Debug Consoles Projects Tools View Help

C:\Users\yogay\OneDrive\Desktop\untitled1.py

temp.py X SLR_housePrice.py X untitled1.py* X

```

83 def getEmb(str):
84     if str=="S":
85         return 1
86     elif str=="Q":
87         return 2
88     else:
89         return 3
90 titanic["Embark"] = titanic["Embarked"].apply(getEmb)
91 titanic.head()
92
93 del titanic['Embarked']
94 titanic.rename(columns={'Embark': 'Embarked'}, inplace=True)
95 titanic.head()
96
97 #Drawing a pie chart for number of males and females aboard
98 import matplotlib.pyplot as plt
99 from matplotlib import style
100
101 males = (titanic['Sex'] == 1).sum()
102 #Summing up all the values of column gender with a
103 #condition for male and similary for females
104 females = (titanic['Sex'] == 2).sum()
105 print(males)
106 print(females)
107 p = [males, females]
108 plt.pie(p, #giving array
109           labels = ['Male', 'Female'], #Corresndingly giving labels
110           colors = ['red', 'purple'], # Corresponding colors
111           explode = (0.15, 0), #How much the gap should me there between the pies
112           startangle = 0) #what start angle should be given
113 plt.axis('equal')
114 plt.show()
115

```

Variable Explorer Help Plots Files

Console 1/A X

312

In [41]:

IPython Console History

conda: base (Python 3.10.9) Completions: conda LSP: Python Line 115, Col 11 UTF-8 CRLF RW Mem 7 20°C 01:01

Type here to search

File Edit Search Source Run Debug Consoles Projects Tools View Help

C:\Users\yogay\OneDrive\Desktop\untitled1.py

temp.py SLR_housePrice.py untitled1.py*

```

102 males = (titanic['Sex'] == 1).sum()
103 #Summing up all the values of column gender with a
104 #condition for male and similary for females
105 females = (titanic['Sex'] == 2).sum()
106 print(males)
107 print(females)
108 p = [males, females]
109 plt.pie(p, #giving array
110         labels = ['Male', 'Female'], #Corresndingly giving labels
111         colors = ['red', 'purple'], # Corresponding colors
112         explode = (0.15, 0), #How much the gap should me there between the pies
113         startangle = 0) #what start angle should be given
114 plt.axis('equal')
115 plt.show()
116
117 # More Precise Pie Chart
118 MaleS=titanic[titanic.Sex==1][titanic.Survived==1].shape[0]
119 print(MaleS)
120 MaleN=titanic[titanic.Sex==1][titanic.Survived==0].shape[0]
121 print(MaleN)
122 FemaleS=titanic[titanic.Sex==2][titanic.Survived==1].shape[0]
123 print(FemaleS)
124 FemaleN=titanic[titanic.Sex==2][titanic.Survived==0].shape[0]
125 print(FemaleN)
126
127 chart=[MaleS,MaleN,FemaleS,FemaleN]
128 colors=['lightskyblue','yellowgreen','Yellow','Orange']
129 labels=["Survived Male","Not Survived Male","Survived Female","Not Survived Female"]
130 explode=[0,0.05,0,0.1]
131 plt.pie(chart,labels=labels,colors=colors,explode=explode,startangle=100,clockwise=False)
132 plt.axis("equal")
133 plt.show()

```

Variable Explorer Help Plots Files

Console 1/A X

```

.... plt.pie(chart, labels=labels, colors=colors, explode=explode, startangle=100, clockwise=False)
.... plt.show()

```

In [43]:

conda: base (Python 3.10.9) Completions: conda LSP: Python Line 133, Col 11 UTF-8 CRLF RW M 01:03

Type here to search