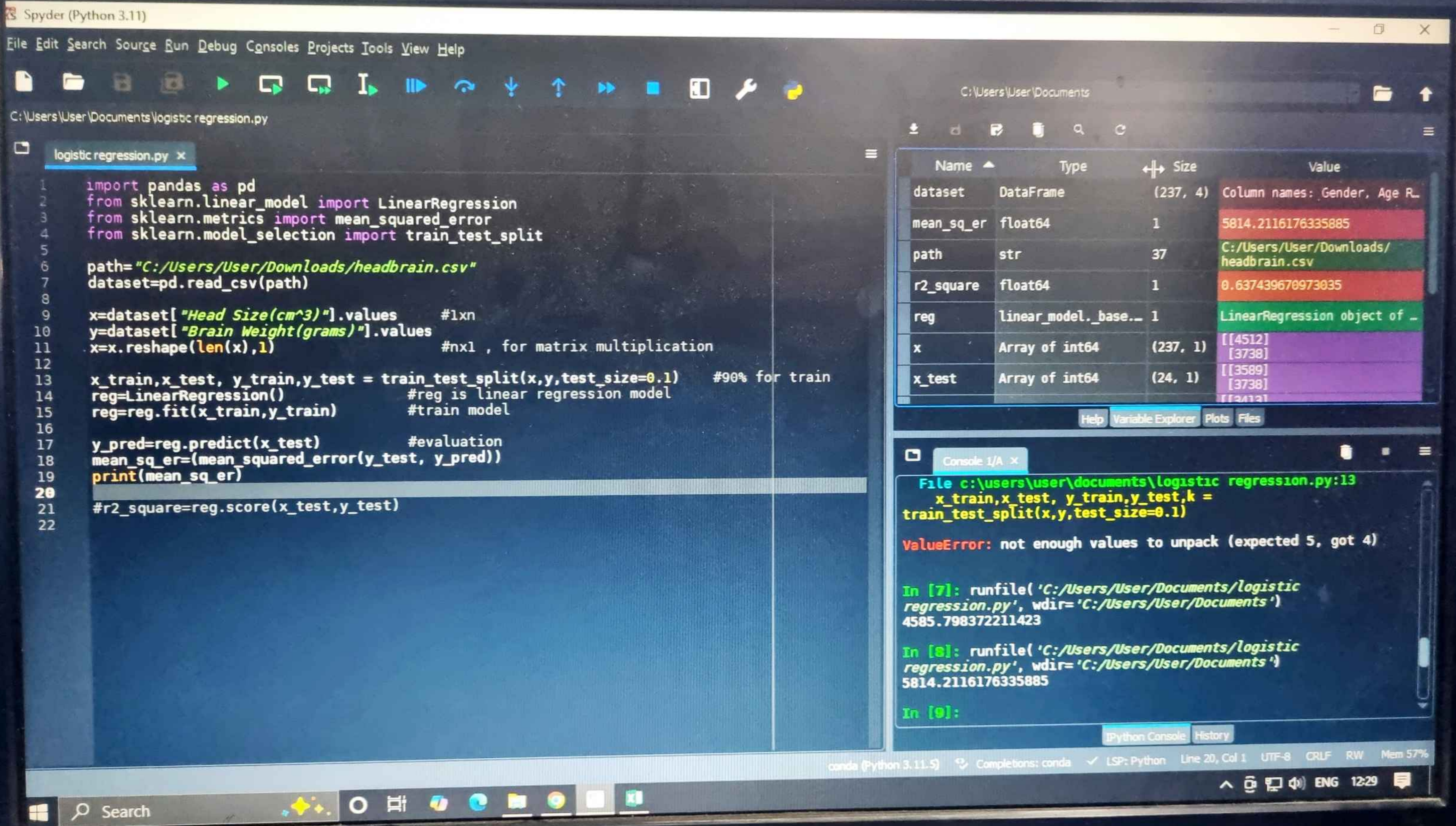

Spyder (Python 3.11)
File Edit Search Source Run Debug Consoles Projects Tools View Help
C:\Users\User\Documents
C:\Users\User\Documents\logistic regression.py
logistic regression.py ×
Help Variable Explorer Plots Files
Console 1/A ×
IPython Console History
conda (Python 3.11.5) Completions: conda LSP: Python Line 20, Col 1 UTF-8 CRLF RW Mem 57%
Search
ENG 12:29
E970Sw

```python
import pandas as pd
from sklearn.linear_model import LinearRegression
from sklearn.metrics import mean_squared_error
from sklearn.model_selection import train_test_split

path="C:/Users/User/Downloads/headbrain.csv"
dataset=pd.read_csv(path)

x=dataset["Head Size(cm^3)"].values      #1xn
y=dataset["Brain Weight(grams)"].values
x=x.reshape(len(x),1)                    #nx1 , for matrix multiplication

x_train,x_test, y_train,y_test = train_test_split(x,y,test_size=0.1)    #90% for train
reg=LinearRegression()               #reg is linear regression model
reg=reg.fit(x_train,y_train)         #train model

y_pred=reg.predict(x_test)           #evaluation
mean_sq_er=(mean_squared_error(y_test, y_pred))
print(mean_sq_er)

#r2_square=reg.score(x_test,y_test)
```

Name	Type	Size	Value
dataset	DataFrame	(237, 4)	Column names: Gender, Age R…
mean_sq_er	float64	1	5814.2116176335885
path	str	37	C:/Users/User/Downloads/ headbrain.csv
r2_square	float64	1	0.637439670973035
reg	linear_model._base.…	1	LinearRegression object of …
x	Array of int64	(237, 1)	[[4512] [3738]
x_test	Array of int64	(24, 1)	[[3589] [3738] [[3413]

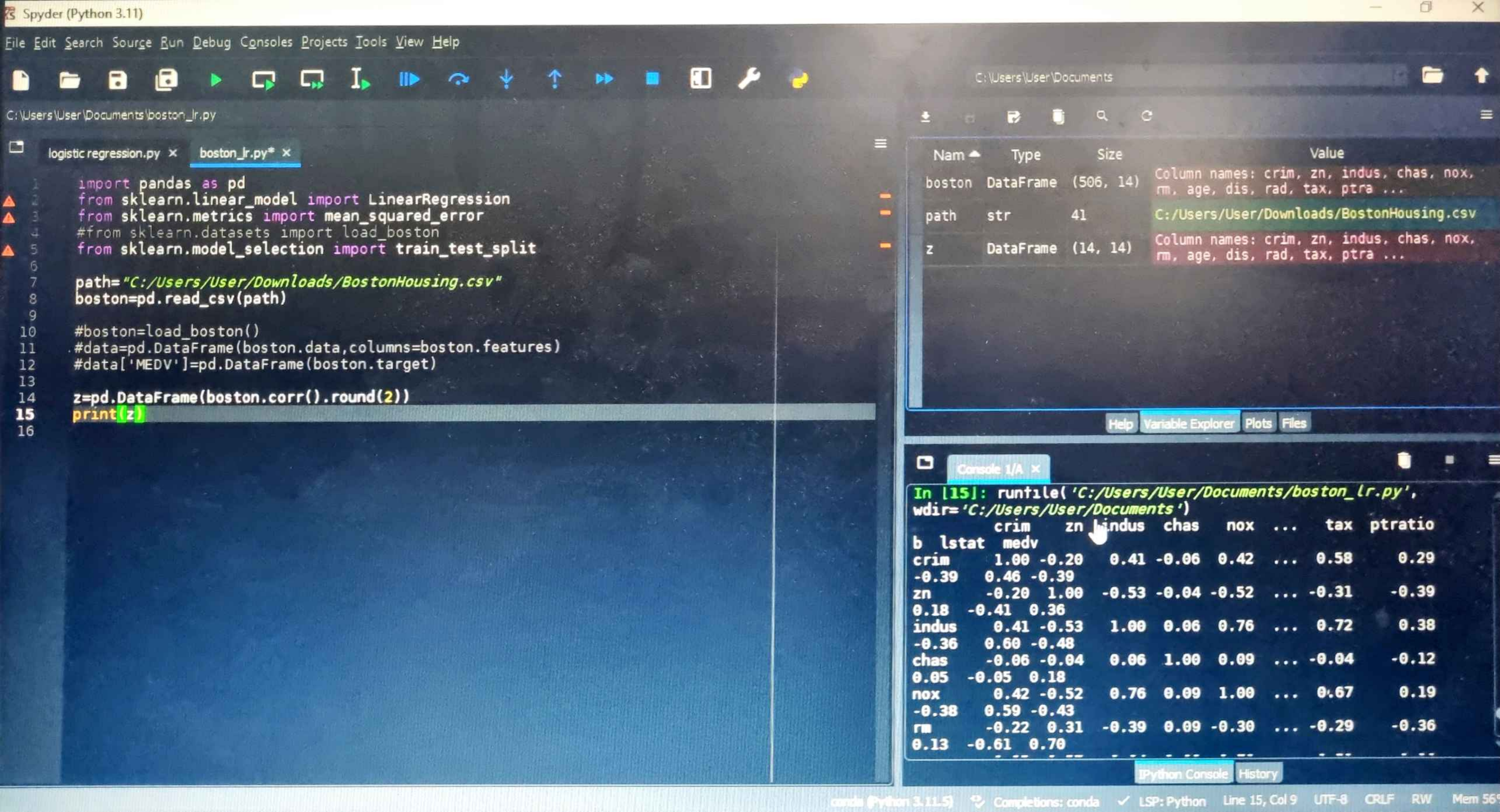
```
  File c:\users\user\documents\logistic regression.py:13
    x_train,x_test, y_train,y_test,k =
train_test_split(x,y,test_size=0.1)

ValueError: not enough values to unpack (expected 5, got 4)


In [7]: runfile('C:/Users/User/Documents/logistic
regression.py', wdir='C:/Users/User/Documents')
4585.798372211423

In [8]: runfile('C:/Users/User/Documents/logistic
regression.py', wdir='C:/Users/User/Documents')
5814.2116176335885

In [9]:
```


Spyder (Python 3.11)
File Edit Search Source Run Debug Consoles Projects Tools View Help
C:\Users\User\Documents
C:\Users\User\Documents\boston_lr.py
logistic regression.py ×
boston_lr.py* ×
Help
Variable Explorer
Plots
Files
Console 1/A ×
IPython Console
History
conda (Python 3.11.5)   Completions: conda   ✓ LSP: Python   Line 15, Col 9   UTF-8   CRLF   RW   Mem 56

```python
import pandas as pd
from sklearn.linear_model import LinearRegression
from sklearn.metrics import mean_squared_error
#from sklearn.datasets import load_boston
from sklearn.model_selection import train_test_split

path="C:/Users/User/Downloads/BostonHousing.csv"
boston=pd.read_csv(path)

#boston=load_boston()
#data=pd.DataFrame(boston.data,columns=boston.features)
#data['MEDV']=pd.DataFrame(boston.target)

z=pd.DataFrame(boston.corr().round(2))
print(z)
```

Nam	Type	Size	Value
boston	DataFrame	(506, 14)	Column names: crim, zn, indus, chas, nox, rm, age, dis, rad, tax, ptra ...
path	str	41	C:/Users/User/Downloads/BostonHousing.csv
z	DataFrame	(14, 14)	Column names: crim, zn, indus, chas, nox, rm, age, dis, rad, tax, ptra ...

```
In [15]: runfile('C:/Users/User/Documents/boston_lr.py',
wdir='C:/Users/User/Documents')
         crim    zn  indus  chas   nox  ...   tax  ptratio
b  lstat  medv
crim     1.00 -0.20   0.41 -0.06  0.42  ...  0.58     0.29
-0.39   0.46 -0.39
zn      -0.20  1.00  -0.53 -0.04 -0.52  ... -0.31    -0.39
0.18  -0.41  0.36
indus    0.41 -0.53   1.00  0.06  0.76  ...  0.72     0.38
-0.36   0.60 -0.48
chas    -0.06 -0.04   0.06  1.00  0.09  ... -0.04    -0.12
0.05  -0.05  0.18
nox      0.42 -0.52   0.76  0.09  1.00  ...  0.67     0.19
-0.38   0.59 -0.43
rm      -0.22  0.31  -0.39  0.09 -0.30  ... -0.29    -0.36
0.13  -0.61  0.70
```