



ValueError Traceback (most recent call last) Cell In[13], line 1 -
----> 1 (x_train,y_train),(x_test,y_test) = ...



This error occurs because scikit-learn's [train_test_split](#) returns exactly **four** separate items (a flat list) when you pass it two input arrays (`df.data` and `df.target`). Scikit-learn +3

By putting the variables in parentheses like `(x_train, y_train), (x_test, y_test)`, you are telling Python to expect only **two** main items, each containing two sub-items. Since the function returns four items directly, Python fails to "unpack" them into your nested structure. Data Science Stack Exchange +4

How to Fix It

Remove the inner parentheses to correctly unpack all four returned arrays into four variables in the official scikit-learn order: GeeksforGeeks +1

python

```
# Correct way to unpack the 4 returned values
x_train, x_test, y_train, y_test = train_test_split(df.data, df.target, test_size=0.33, random_state=42)
```

Use code with caution.



Key order to remember:

1. `x_train` : Training features
2. `x_test` : Testing features
3. `y_train` : Training labels
4. `y_test` : Testing labels

Does your `df.data` contain only **numerical features**, or do you need to perform any **preprocessing** before splitting?

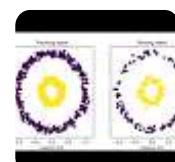


12 sites



train_test_split — scikit-learn 1.8.0 documentation

Controls the shuffling applied to the data before applying the split. Pass an int for reproducible output across multiple function...



Scikit-learn :

ValueError when trying to split DataFrame into train/test

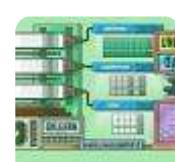
1 Nov 2021 — 1. I think You should use `X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.33, random_state=42)` to split the ...

Data Science Stack Exchange :



Split Your Dataset With scikit-learn's train_test_split()

Split Your Dataset With scikit-learn's `train_test_split()` ... With `train_test_split()` from scikit-learn, you can efficiently divid...



Real Python :

Show all

(`x_train,y_train),(x_test,y_test)`)...i write this type i think in dl

Ask anything



python

```
# Keras style (Nested tuples)
(x_train, y_train), (x_test, y_test) = mnist.load_data()
```

Use code with caution.

- **Machine Learning (Scikit-Learn):** The `train_test_split` function returns a "flat" list of four items.

python

```
# Scikit-Learn style (Flat List)
x_train, x_test, y_train, y_test = train_test_split(df.data, df.target, ...)
```

Use code with caution.

Stack Overflow +4

Why it failed

Because `train_test_split` returns a flat list of 4 elements, Python tried to put those 4 elements into your **two** outer containers `(x_train, y_train)` and `(x_test, y_test)`. Since 4 items don't fit into 2 containers, it threw the `ValueError: too many values to unpack (expected 2)`. Stack Overflow +2

Quick Fix: Just remove the parentheses from your original code.

Are you building a **Neural Network** with this data, or are you sticking with a **Scikit-Learn** model like Random Forest?



8 sites

Assigning variables returned by Sklearn train_test_split()

28 May 2020 — Assigning variables returned by Sklearn train_test_split() ... How does it split the rows of example_df ? example_df has 100 rows,



Stack Overflow ::

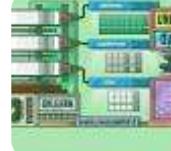
MNIST digits classification dataset - Keras

load_data function. Copied! keras.datasets.mnist.load_data(path="mnist.npz") Loads the MNIST dataset. This is a dataset of 60,0...

Keras ::

Split Your Dataset With scikit-learn's train_test_split()

To get your data, you use `arange()`, which is very convenient for generating arrays based on numerical ranges. You also use `.resh...`



Real Python ::

Show all