

**Getting help beyond the help files**

# We all encounter problems when writing Python code

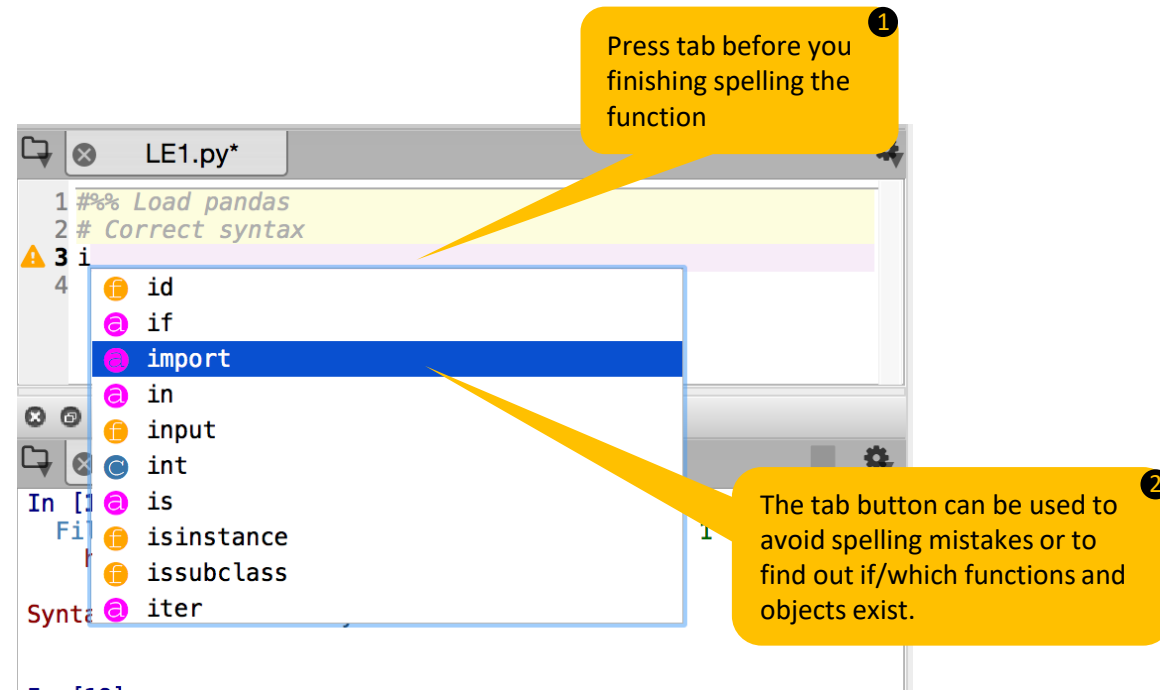
The following types of problems can arise when writing Python code:

1. Incorrect syntax
2. Exceptions (i.e., error messages)
3. Incorrect output
4. Incomplete knowledge
5. Slow code, messy code, collaboration chaos, etc.

Including no output and warning messages

These advanced topics do not necessarily hinder us from getting the output we want but are annoyances to the advanced Python user.

A way to avoid incorrect syntax is by pressing the tabulate button to autocomplete your code



## Sidenote: Commenting code

- Comments are important to document why you did something the way you did it – trust us, at the moment you write the code everything seems obvious, but you won't remember this 3 weeks later!
- To write a comment use the hashtag-sign (#). The rest of the particular line will be a comment and won't be interpreted as Python code.

```
# This is a comment!
```

```
x=1 # This is also a comment!
```

To solve all other problems when writing Python code you have two best friends

The Google logo, consisting of the word "Google" in its characteristic multi-colored font: blue 'G', red 'o', yellow 'o', blue 'g', green 'l', and red 'e'.The Stack Overflow logo, featuring an orange icon of a book with rays emanating from it, set within a gray square frame.

**stackoverflow**

# When using Google, carefully craft search queries to find useful results faster

- Bad question:

I can't get my data to load correctly|



- Better question:

how to load data in python



- Good question:

How to load csv data into python with package pandas



Be specific and identify the core of your question

If you can't find an answer through Google, look and ask on [www.stackoverflow.com](https://www.stackoverflow.com)

Stackoverflow is the largest online community for programmers to learn and share their knowledge:



# How to post a good question on Stackoverflow?

Obviously, the answer to this questions has been given on [www.stackoverflow.com](http://www.stackoverflow.com) itself:

<http://stackoverflow.com/questions/5963269/how-to-make-a-great-r-reproducible-example>

The image shows a screenshot of the Stack Overflow question editor interface. Three yellow callout boxes with numbered circles (1, 2, 3) point to specific features:

- 1** (Title): Points to the title input field. Text: "Choose a specific title, similar to your Google query".
- 2** (Code Block): Points to a code block in the editor. Text: "Include images of your outputs and Error messages".
- 3** (Code Snippet): Points to a code snippet in the editor. Text: "Include code snippets into your question with 'code'".

The editor interface includes a title field, a rich text editor toolbar (B, I, link, quote, code, image, video, list, blockquote, code, HTML), and a text area with preformatted text examples. The preformatted text examples show how to create code blocks (indented by four spaces) and inline code spans (using backticks).



# Most important points when asking a questions on Stackoverflow

1. Add a clear title to your question:
  - Catchy description of the issue
  - Relevant context (e.g. problem with function in a particular Python package)
2. In the body of your question provide:
  - Minimal information to understand your question
  - Toy data
  - Code to reproduce your error or incorrect output, and demonstrate that you have attempted to solve your problem
3. Apply relevant tags

# This is how an exemplary question on Stackoverflow would look

1  
Clear question  
with information  
on the particular  
Python package

I have the following python pandas data frame:

10  
▼  
★  
3

```
df = pd.DataFrame( {
    'A': [1,1,1,1,2,2,2,3,3,4,4,4],
    'B': [5,5,6,7,5,6,6,7,7,6,7,7],
    'C': [1,1,1,1,1,1,1,1,1,1,1,1]
} );
```

	A	B	C
0	1	5	1
1	1	5	1
2	1	6	1
3	1	7	1
4	2	5	1
5	2	6	1
6	2	6	1
7	3	7	1
8	3	7	1
9	4	6	1
10	4	7	1
11	4	7	1

2  
Toy data

I would like to have another column storing a value of a sum over C values for fixed (both) A and B. That is, something like:

	A	B	C	D
0	1	5	1	2
1	1	5	1	2
2	1	6	1	1
3	1	7	1	1
4	2	5	1	1
5	2	6	1	2
6	2	6	1	2
7	3	7	1	2
8	3	7	1	2
9	4	6	1	1
10	4	7	1	2
11	4	7	1	2

3  
Task that could not  
be solved

4  
How the result  
would look like for  
the toy data

5  
OP demonstrated that  
they attempted to solve  
the problem

I have tried with pandas `groupby` and it kind of works:

```
res = {}
for a, group_by_A in df.groupby('A'):
    group_by_B = group_by_A.groupby('B', as_index = False)
    res[a] = group_by_B['C'].sum()
```

but I don't know how to 'get' the results from `res` into `df` in the orderly fashion. Would be very happy with any advice on this. Thank you.

6  
Task that could not  
be solved

7  
Relevant tags

`python` `group-by` `pandas`

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