



Python for Excel

Version 1.3

March 16, 2025

Welcome to Python for Excel!

- Creates Excel custom functions from Python functions.
 - E.g. =HELLO(name) from def hello(name):
 - For general Python scripts, try [Excel PY](#) instead.
- Key points:
 - Your Python code MUST BE A FUNCTION!
 - You can NOT load local files (e.g. C:\Users\Joe\Data.csv)
 - You can load internet files using requests library, but server must add CORS headers, e.g. Access-Control-Allow-Origin: *
- Support:
 - Please [contact us](#) with your questions.

Home tab

Home Editor Functions Output

Create Functions

Step 1: Write a Python function in the [editor](#).

```
1 def hello(name):  
2     """ Returns a greeting. """  
3     return f"Hello {name}!"
```

Step 2: Save it to create a custom function.
=HELLO("Annie")
Check out the [slideshow](#) and [documentation](#).

Example Functions

=TEXT_DISTANCE	Add
=ADD_DAYS	Add
=ASK_AI	Add
=AI_TABLE	Add
=CALCULATE_AREA	Add
=WEB_CONTENT	Add

Adds example function and demo sheet to your workbook.

Please email us.
We're happy to help!

Email Us! 📧

Logout

Login to your
Microsoft account.

Editor tab

Home Editor Functions Output

```
1 def hello(name):  
2     """ Returns a greeting. """  
3     return f"Hello {name}!"  
4  
5 # Arguments to test the function.  
6 test_cases = [  
7     ["Nancy"],  
8     ["Ming"]  
9 ]  
10  
11 # Excel usage: =HELLO("Nancy")
```

Code must be function
as this will be called
from Excel.

Runs code with
test cases.

Selects workbook
function to edit.

Saves function,
NO AUTO-SAVE

Launch AI dialog to
create function.

hello

Test

Save

AI ✨

Function Dialog Launch

```
Home Editor Functions Output ⚙️
1 def convert_to_uppercase(input_str):
2     """
3     Converts a single string or a 2D list of strings to upper case.
4     """
5     if isinstance(input_str, str):
6         return input_str.upper()
7     elif isinstance(input_str, list):
8         return [[s.upper() for s in row] for row in input_str]
9     else:
10        return None
11
12 test_cases = [
13     ["hello"],
14     [["hello", "world"], ["python", "function"]],
15     [None],
16     [True],
17     [[1.5, "test"], ["example", "case"]]
18 ]
```

CONVERT_TO_UPPERCASE(input_str) saved!

Run Function

convert_to_uppercase ▾

Save

Test

AI 🌟

After function is saved, you can launch function dialog to run it.

Using Function Dialog

This calculates
result first, then
inserts it into cell.
Use if you don't
want recalculation.

```
1 def convert_to_uppercase(input_str):
2     """
3     Converts a single string or a 2D list of strings to uppercase
4     """
5     if isinstance(input_str, str):
6         return input_str.upper()
7     elif isinstance(input_str, list):
8         return [[s.upper() for s in row] for row in input_str]
9     else:
10        return None
11
12 test_cases = [
13     "ABC",
14     ["ABC", "DEF"],
15     ["ABC", "DEF", "GHI"],
16 ]
```

CONVERT_TO_UPPERCASE(input_str)

Converts a single string or a 2D list of strings to uppercase

input_str* Click, then select range

Insert into cell:* Click, then select cell

☐ Insert result, not formula

Only ranges in the active worksheet
are currently supported.

Cancel

OK

This is similar to Excel
function dialog, except it
only works with ranges

Click input field to
activate range selection,
then pick range on the
active worksheet ONLY.

convert_to_uppercase ▾

Save

Test

AI 🧠

AI coding

Select an example prompt

Describe your function.

Home

Editor

Functions

Output

```
1 def hello(name):
2     """ Returns a greeting. """
3     return f"Hello {name}!"
4
```

Create Function with AI

Select an example ...

Describe what your custom function should do, and the AI will try to create one like
=EXTRACT_EMAILS or
=CALCULATE_AVERAGE that you can save and use in your workbook. You can't ask it general questions, it can only create functions.

Clear

Cancel

Submit

hello

Test

Save

AI

Home

Editor

Functions

Output

```
1 def hello(name):
2     """ Returns a greeting. """
3     return f"Hello {name}!"
4
5 # Arguments to test the function.
6 test_cases = [
7     ["Nancy"],
8 ]
```

Your function was created successfully!

Use your function in Excel as follows:

=ADD_NUMBERS(first_num, second_num)

Next, you will be taken to the code editor where you can edit the code further and test the function.

Continue









hello

Test

Save

AI

Functions tab

Home	Editor	Functions	Output
Workbook Functions			
HELLO			
TEXT_DISTANCE			
ADD_DAYS			
ADD_NUMBERS			

Edit or Delete
a function.

OneDrive Functions

Login to OneDrive to save functions to OneDrive
and use them with other workbooks.

Login to OneDrive

Login to OneDrive
to save functions
for use in other
workbooks.

OneDrive

- Functions can only be edited in the workbook.
- Saving a function to either location will overwrite a function of the same name if it exists.
- Requires Files.ReadWrite permission to access your OneDrive.

Home Editor **Functions** Output

Workbook Functions

HELLO	↓	✖
ADD_NUMBERS	↓	✖

OneDrive Functions

WEB_CONTENT	↑	✖
ADD_DAYS	↑	✖
COLAB	↑	✖
ASK_AI	↑	✖
AI_TABLE	↑	✖
HELLO	↑	✖
CORS_TEST	↑	✖
TEXT_DISTANCE	↑	✖
CALCULATE_AREA	↑	✖
ANALYZE_EMAIL_THREADS	↑	✖

↓ to save from Workbook to OneDrive
↑ to save from OneDrive to Workbook
Saving updates a function with the same name.

Save Workbook
function to OneDrive

Save OneDrive
function to
workbook.

Output tab

Home Editor Functions **Output**

Displays STDOUT and STDERR messages. Clear removes all messages and Cancel stops the current operation.

Cancel Clear

```
=====
Running 3 test cases for add_numbers
=====
Case 1: [1.0, 2.0] -> 3.0
Case 2: [3.5, 4.5] -> 8.0
Case 3: [-1.0, 1.0] -> 0.0
```

Shows results of running test cases and any other stderr or stdout messages