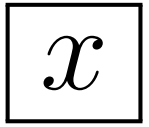


BOARDFLARE

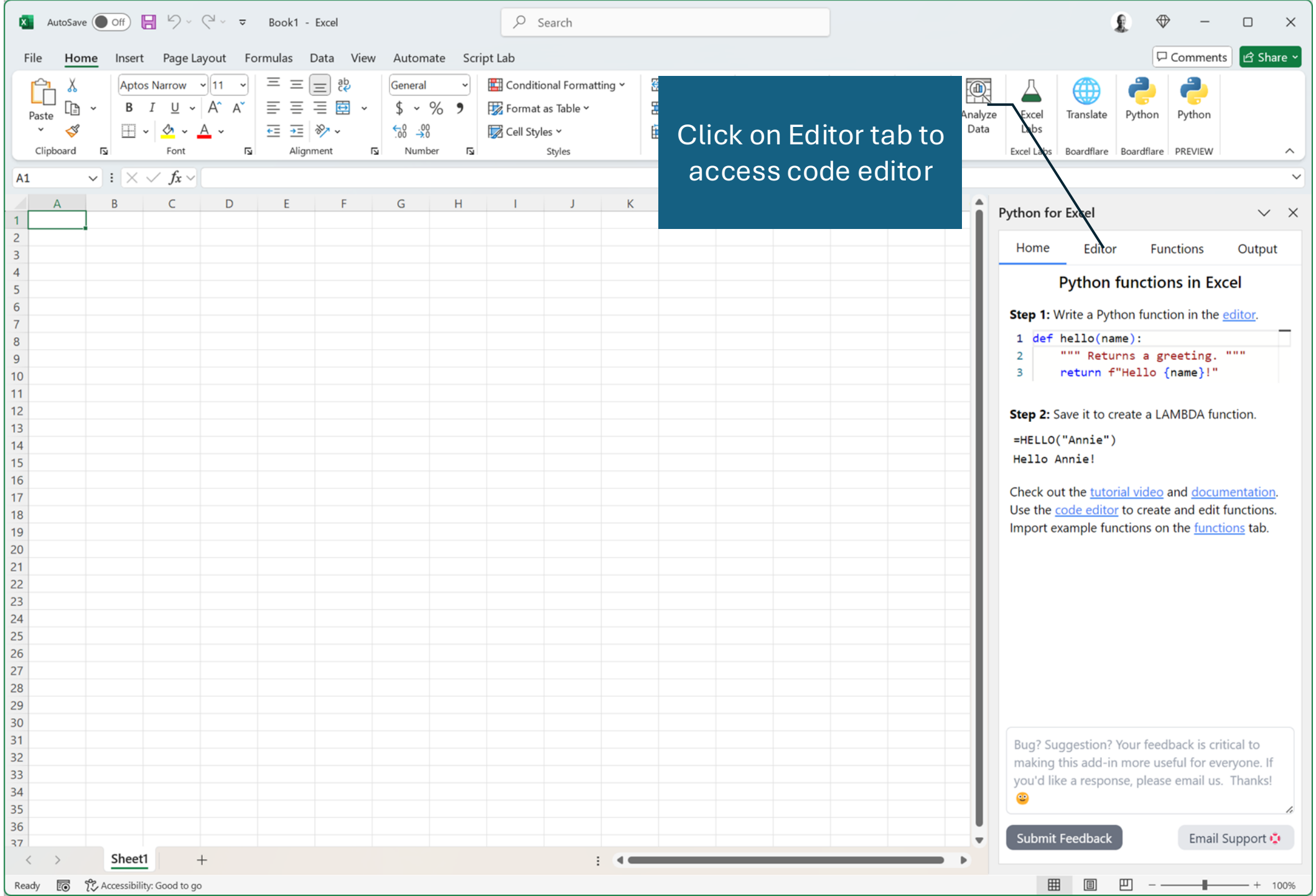
Python for Excel

Version 1.1.0

January 18, 2025

What's New 🚀

- Creation of an Excel LAMBDA function from a Python function.
- This is the recommended way to use Python in functions.
- BOARDFLARE.RUNPY function is still available and unchanged. A new function EXEC was created for internal use to support new functionality and avoid breaking changes in RUNPY.
- This initial version has some rough edges like NO AUTO-SAVE, no support for optional arguments, etc.


Book1 - Excel
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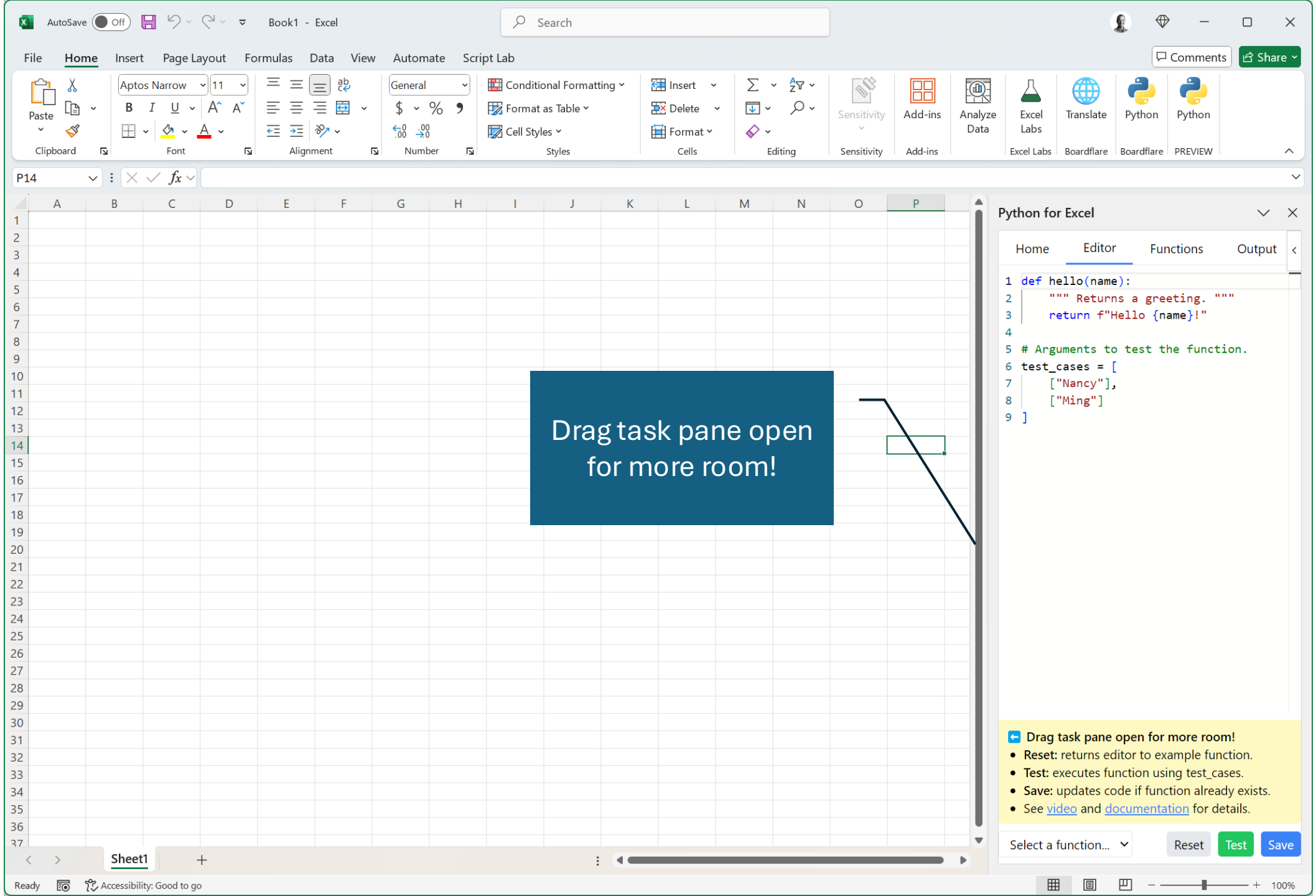
Boardflare
PREVIEW
A1
Click on Editor tab to access code editor
Python for Excel
Home
Editor
Functions
Output
Python functions in Excel
Step 1: Write a Python function in the editor.
1 def hello(name):
2 """ Returns a greeting. """
3 return f"Hello {name}!"
Step 2: Save it to create a LAMBDA function.
=HELLO("Annie")
Hello Annie!
Check out the tutorial video and documentation.
Use the code editor to create and edit functions.
Import example functions on the functions tab.
Bug? Suggestion? Your feedback is critical to making this add-in more useful for everyone. If you'd like a response, please email us. Thanks!
Submit Feedback
Email Support
Sheet1
Ready
Accessibility: Good to go
100%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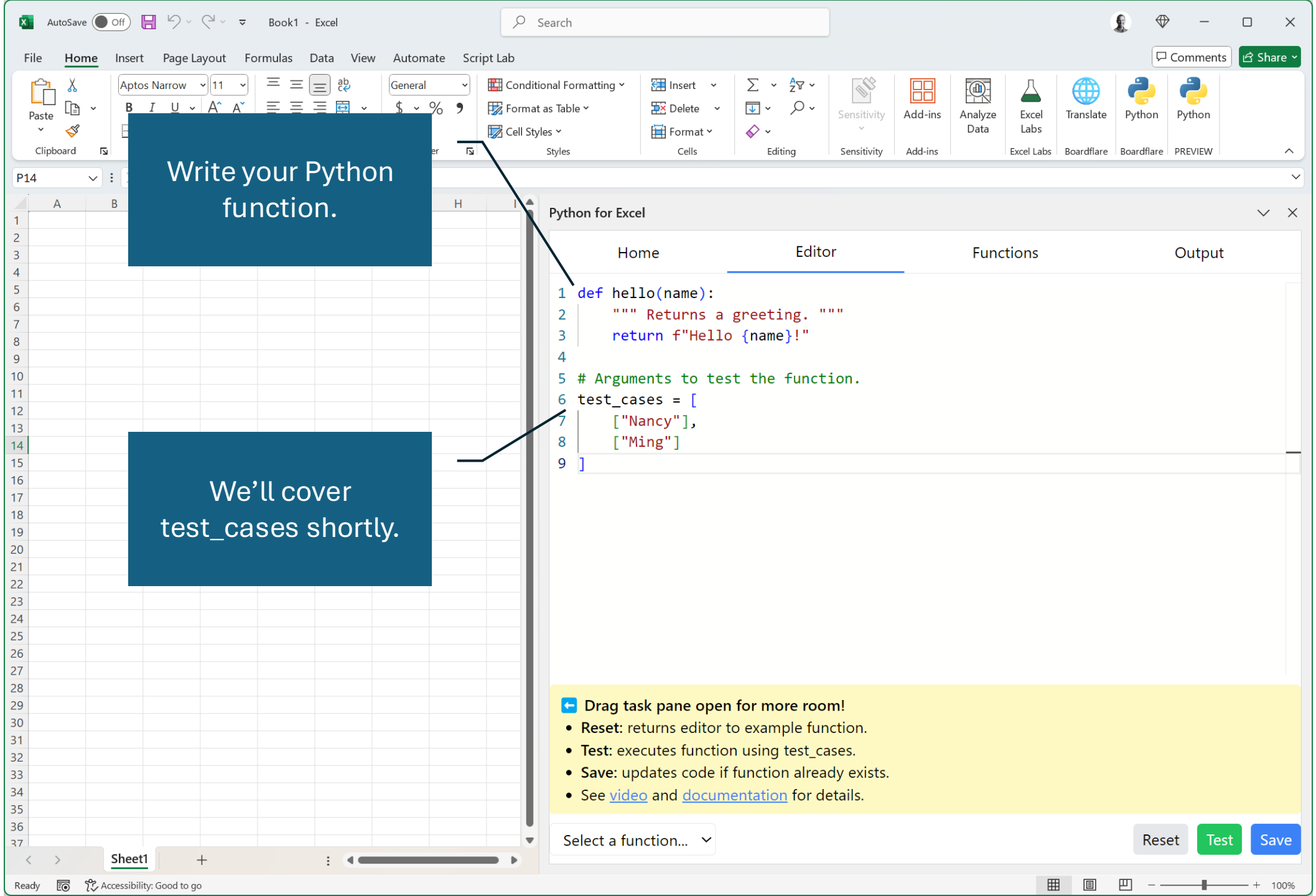
Format as Table
Cell Styles Styles
Insert Delete Format Cells
Editing
Sensitivity
Add-ins
Analyze Data
Excel Labs
Translate Boardflare
Python Boardflare
Python PREVIEW
P14
Drag task pane open for more room!
Python for Excel
Home Editor Functions Output
def hello(name):
""" Returns a greeting. """
return f"Hello {name}!"
# Arguments to test the function.
test_cases = [
["Nancy"],
["Ming"]
]
Drag task pane open for more room!
Reset: returns editor to example function.
Test: executes function using test_cases.
Save: updates code if function already exists.
See video and documentation for details.
Select a function...
Reset Test Save
Sheet1
Ready
Accessibility: Good to go
100%


Book1 - Excel
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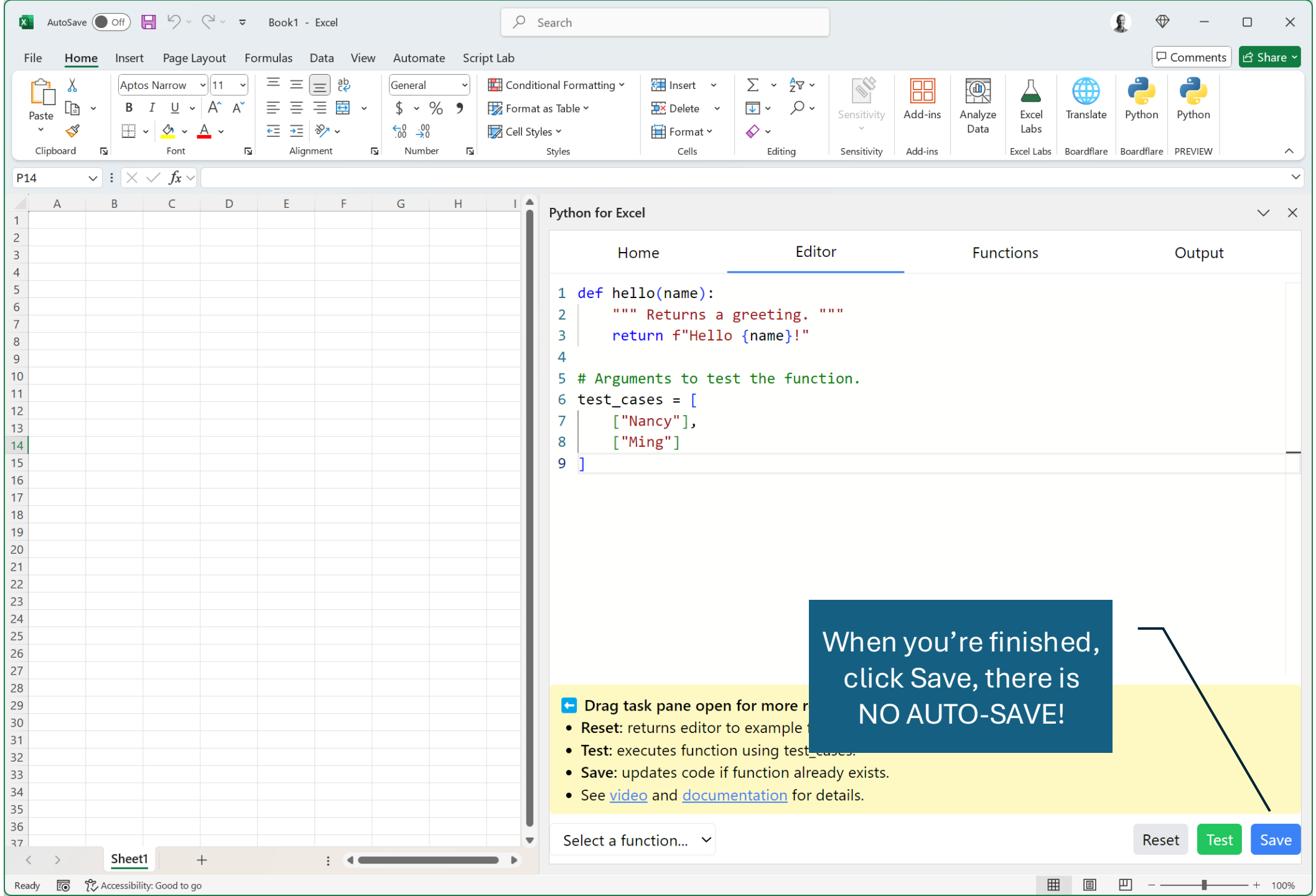
Python
Python
PREVIEW
P14
Write your Python function.
We'll cover test_cases shortly.
Python for Excel
Home
Editor
Functions
Output
def hello(name):
""" Returns a greeting. """
return f"Hello {name}!"
# Arguments to test the function.
test_cases = [
["Nancy"],
["Ming"]
]
Drag task pane open for more room!
Reset: returns editor to example function.
Test: executes function using test_cases.
Save: updates code if function already exists.
See video and documentation for details.
Select a function...
Reset
Test
Save
Sheet1
Ready
Accessibility: Good to go
100%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Analyze Data
Excel Labs
Translate
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Python
Clipboard Font Alignment Number Styles Cells Editing Sensitivity Add-ins Excel Labs Boardflare Boardflare PREVIEW
P14
Python for Excel
Home Editor Functions Output
def hello(name):
""" Returns a greeting. """
return f"Hello {name}!"
# Arguments to test the function.
test_cases = [
["Nancy"],
["Ming"]
]
When you're finished, click Save, there is NO AUTO-SAVE!
Drag task pane open for more r
Reset: returns editor to example
Test: executes function using test_cases.
Save: updates code if function already exists.
See video and documentation for details.
Select a function...
Reset
Test
Save
Sheet1
Ready
Accessibility: Good to go
100%

Home | Editor | Functions | Output

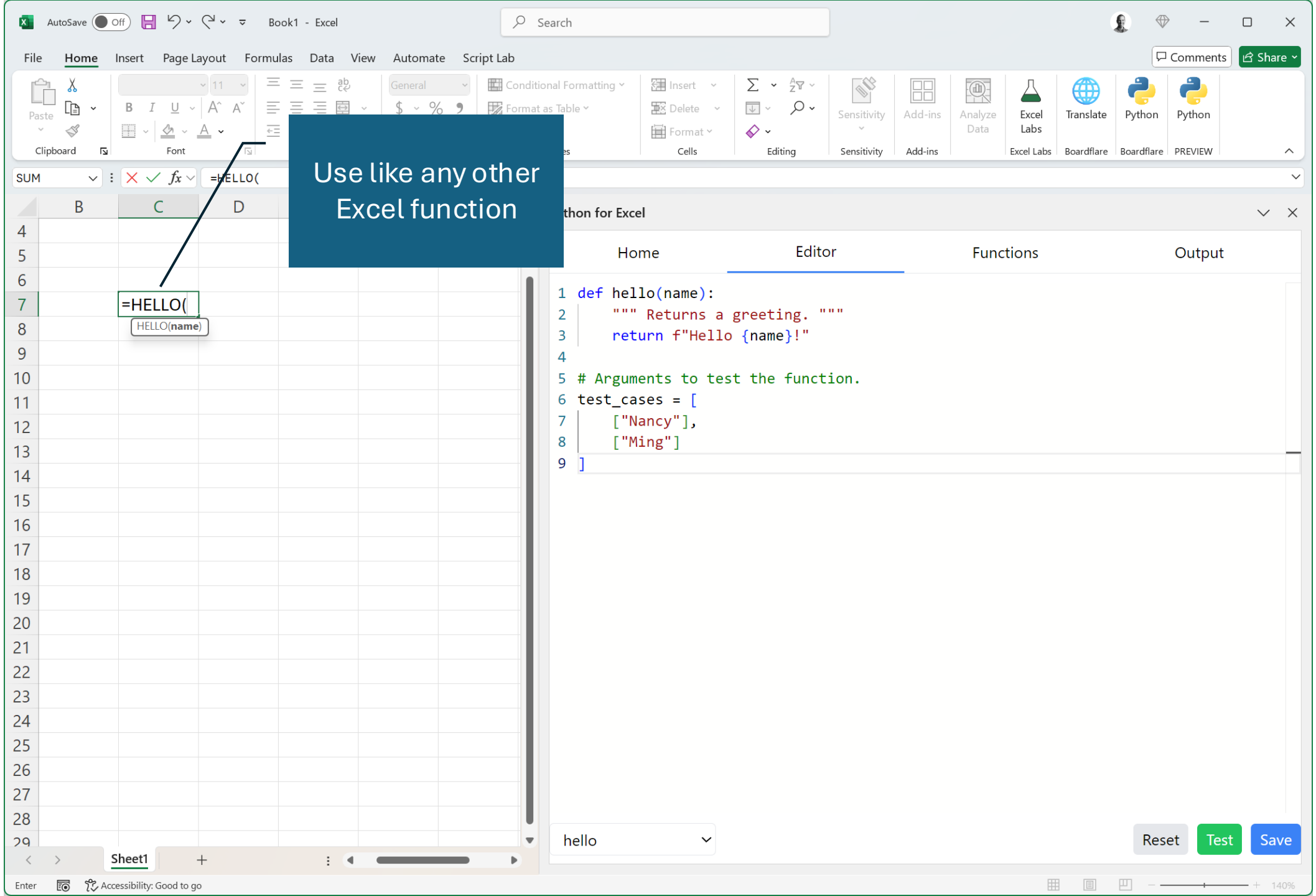
```python
def hello(name):
    """ Returns a greeting. """
    return f"Hello {name}!"

# Arguments to test the function.
test_cases = [
    ["Nancy"],
    ["Ming"]
]
```

After clicking Save, the LAMBDA function is created.

HELLO(name) saved!

hello

Reset | Test | Save


Book1 - Excel
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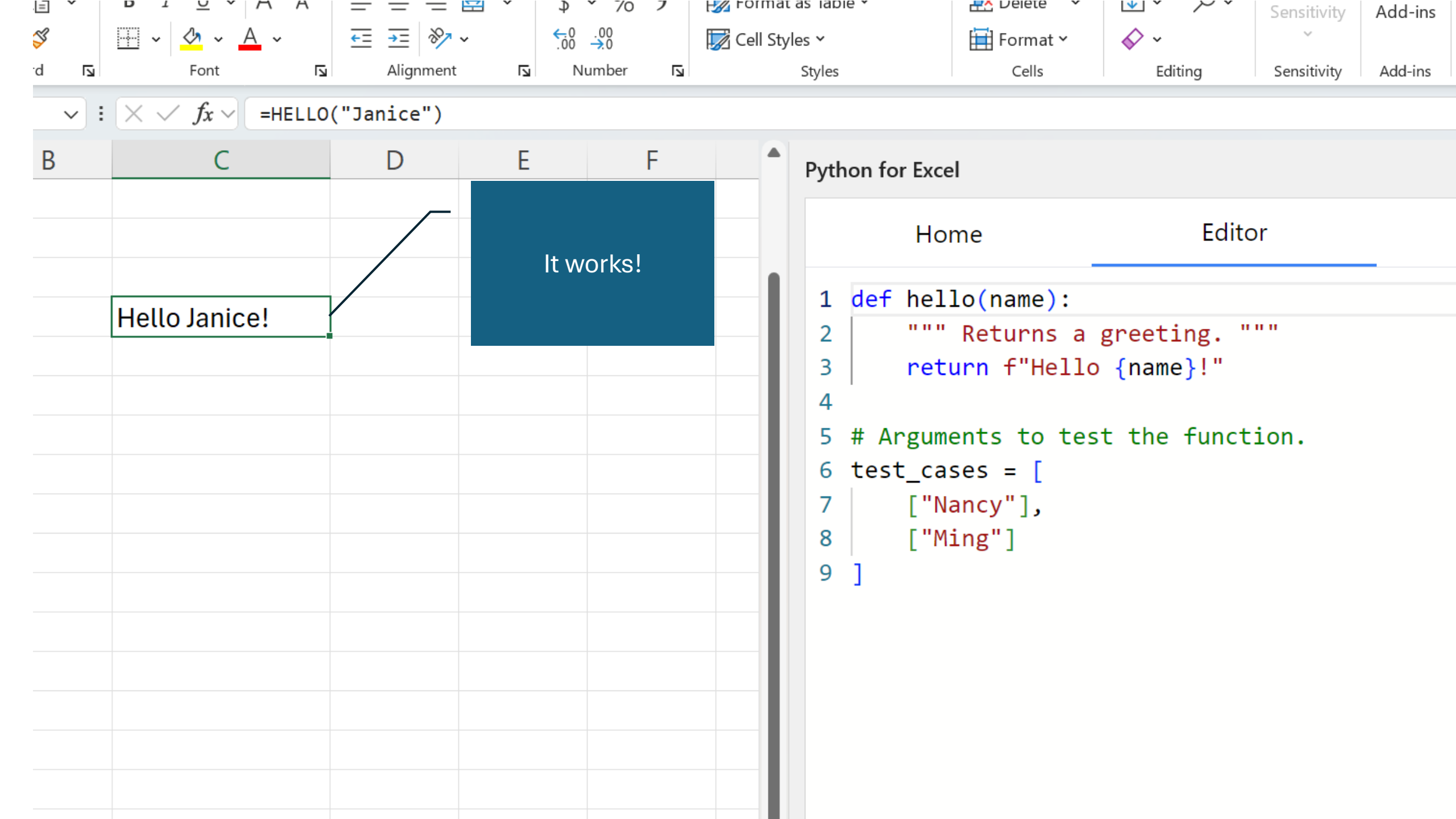
Share
Use like any other Excel function
SUM
=HELLO(
=HELLO(
HELLO(name)
thon for Excel
Home
Editor
Functions
Output
def hello(name):
""" Returns a greeting. """
return f"Hello {name}!"
# Arguments to test the function.
test_cases = [
["Nancy"],
["Ming"]
]
hello
Reset
Test
Save
Sheet1
Enter
Accessibility: Good to go


Font
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Cell Styles
Styles
Format
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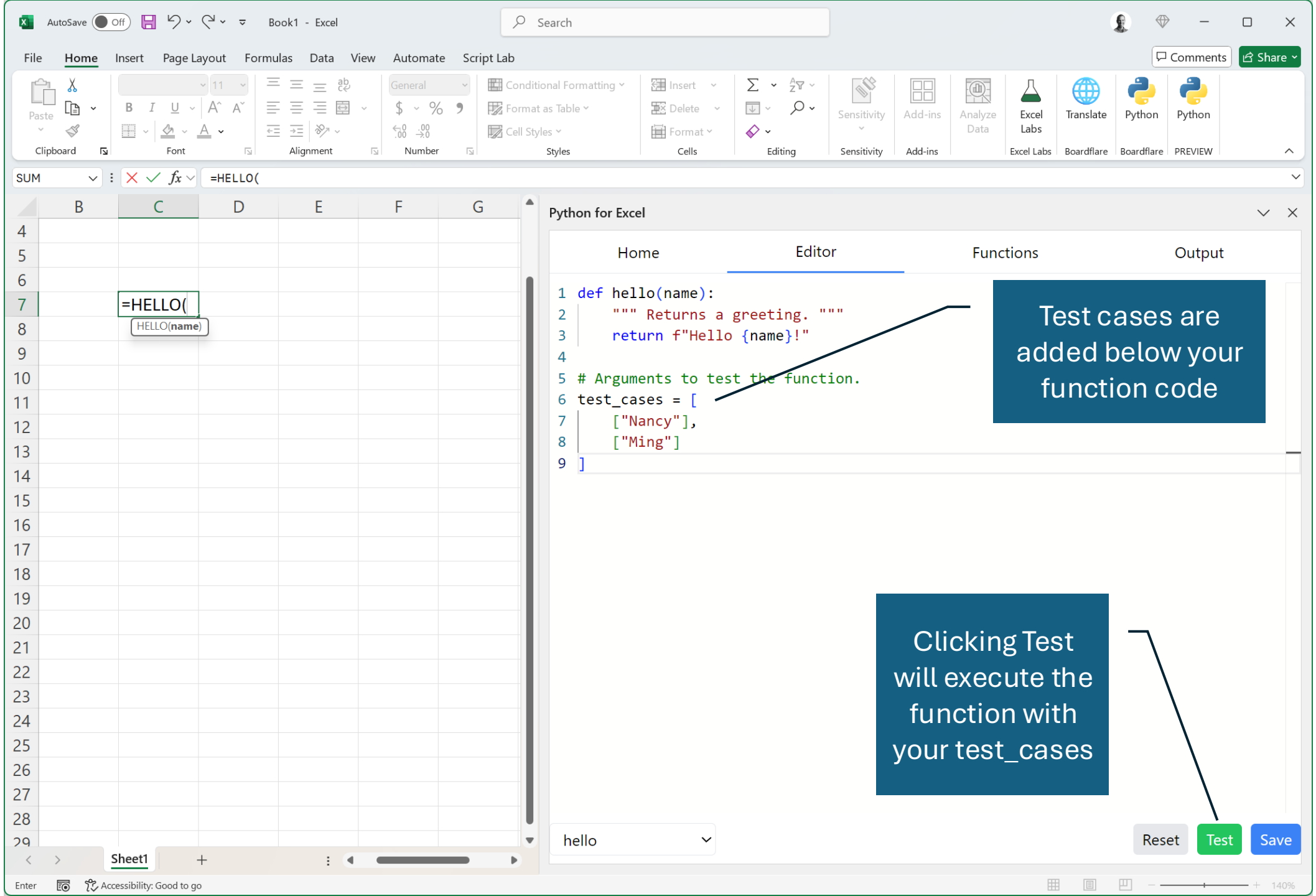
Editing
Sensitivity
Add-ins
=HELLO("Janice")
B
C
D
E
F
Hello Janice!
It works!
Python for Excel
Home
Editor
1 def hello(name):
2 """ Returns a greeting. """
3 return f"Hello {name}!"
4
5 # Arguments to test the function.
6 test_cases = [
7 ["Nancy"],
8 ["Ming"]
9]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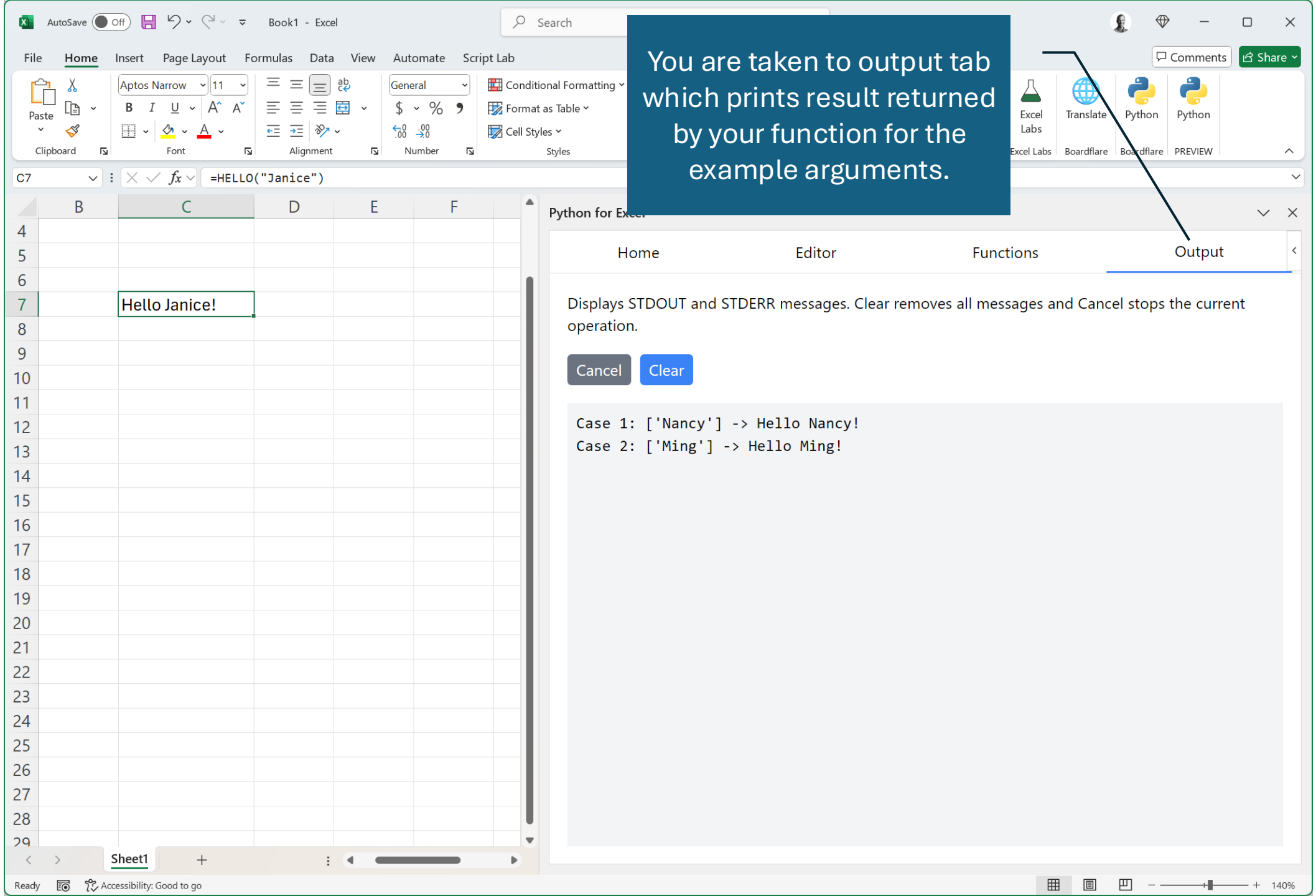
Python
Python
PREVIEW
SUM
=HELLO(
B C D E F G
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
=HELLO(
HELLO(name)
Sheet1
Enter
Accessibility: Good to go
Python for Excel
Home
Editor
Functions
Output
1 def hello(name):
2 """ Returns a greeting. """
3 return f"Hello {name}!"
4
5 # Arguments to test the function.
6 test_cases = [
7 ["Nancy"],
8 ["Ming"]
9]
Test cases are added below your function code
Clicking Test will execute the function with your test_cases
hello
Reset
Test
Save
140%


You are taken to output tab which prints result returned by your function for the example arguments.
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Format as Table
Cell Styles
Styles
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Python
Excel Labs
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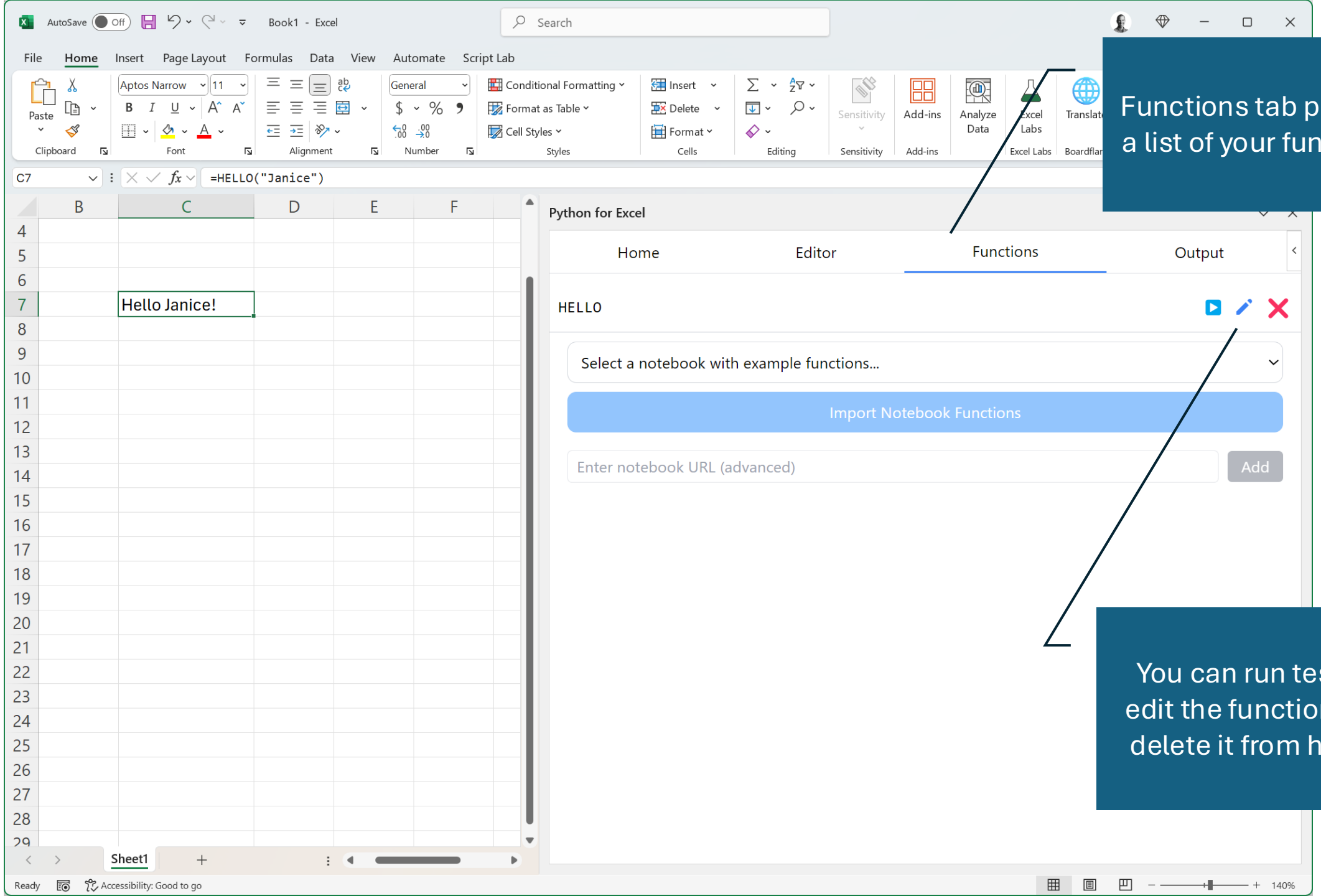
Boardflare
PREVIEW
C7
=HELLO("Janice")
Hello Janice!
Python for Excel
Home
Editor
Functions
Output
Displays STDOUT and STDERR messages. Clear removes all messages and Cancel stops the current operation.
Cancel
Clear
Case 1: ['Nancy'] -> Hello Nancy!
Case 2: ['Ming'] -> Hello Ming!
Sheet1
Ready
Accessibility: Good to go
140%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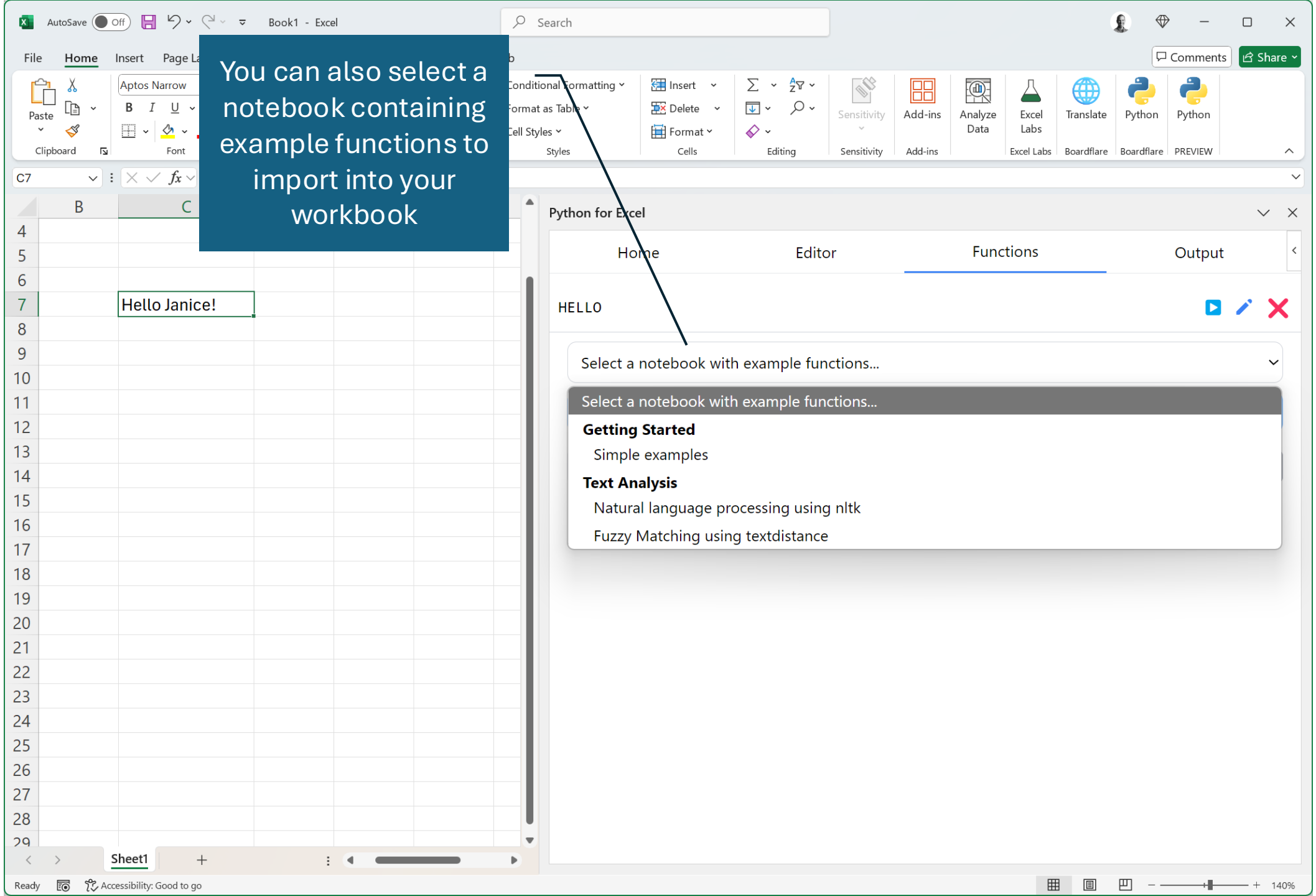
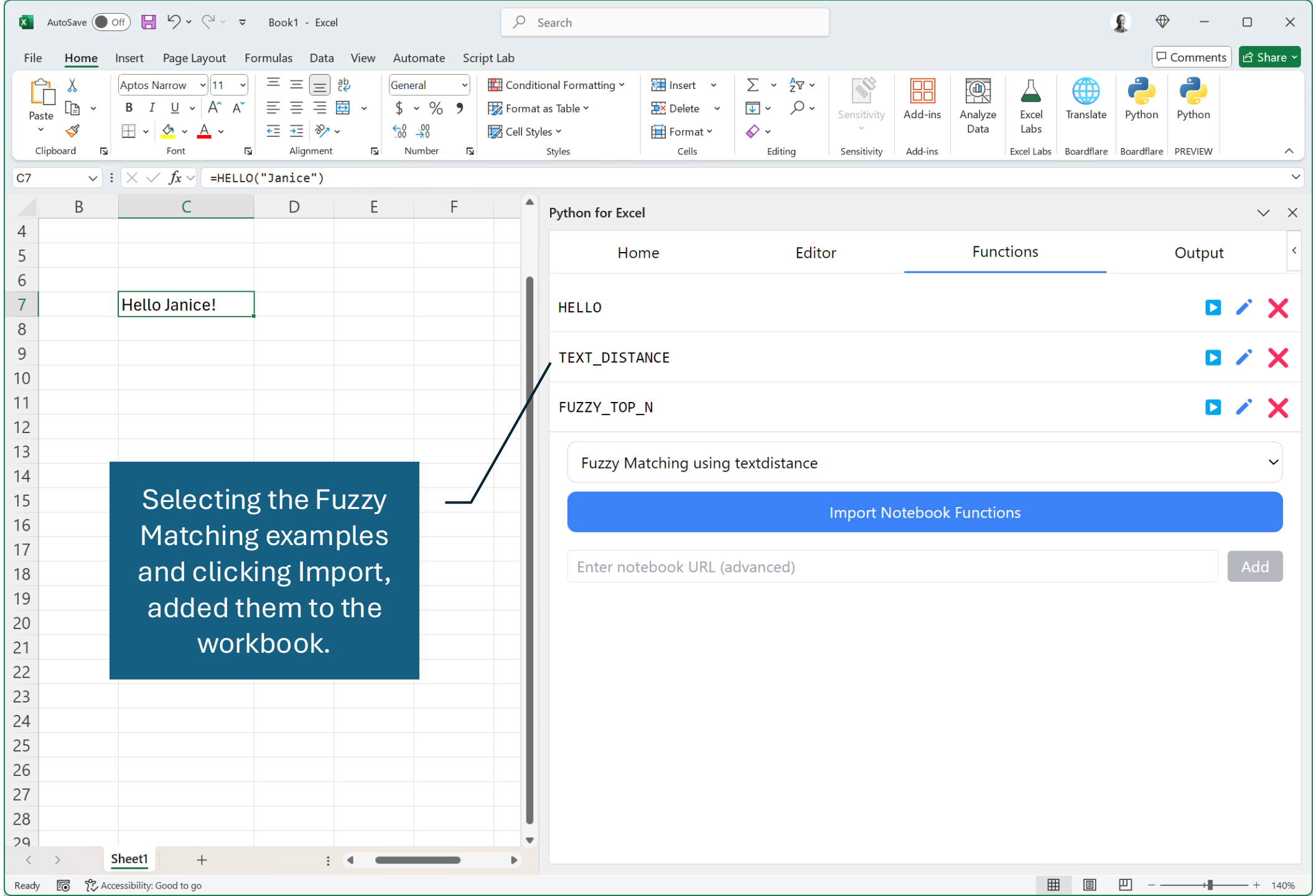
Analyze Data
Excel Labs
C7
=HELLO("Janice")
Hello Janice!
Sheet1
Python for Excel
Home
Editor
Functions
Output
HELLO
Select a notebook with example functions...
Import Notebook Functions
Enter notebook URL (advanced)
Add
Ready
Accessibility: Good to go
140%
Functions tab provides a list of your functions.
You can run tests, edit the function, or delete it from here.


You can also select a notebook containing example functions to import into your workbook
Book1 - Excel
Search
Hello Janice!
Python for Excel
Home
Editor
Functions
Output
HELLO
Select a notebook with example functions...
Select a notebook with example functions...
Getting Started
Simple examples
Text Analysis
Natural language processing using nltk
Fuzzy Matching using textdistance
Sheet1
Ready
Accessibility: Good to go
140%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Add-ins
Analyze Data
Excel Labs
Translate
Python
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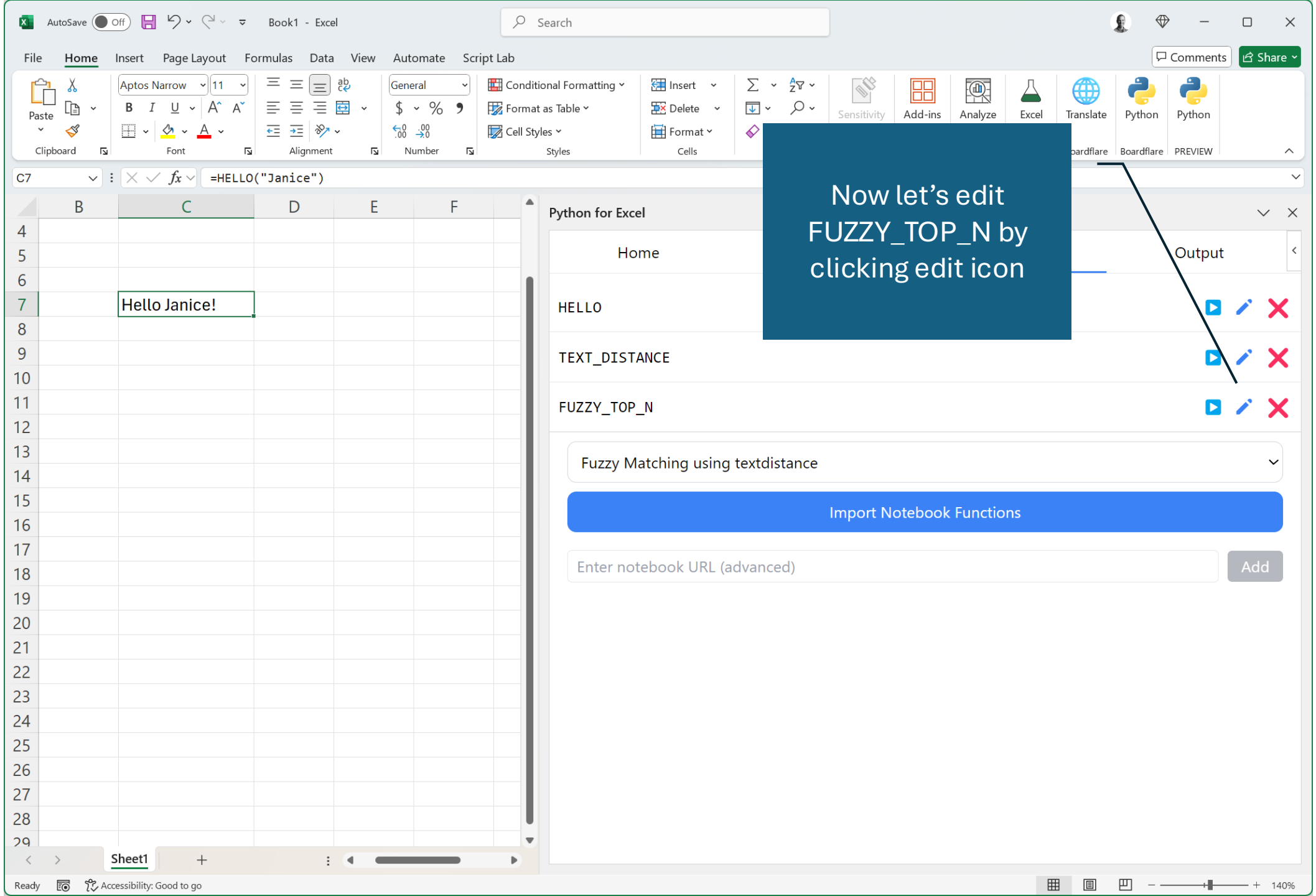
PREVIEW
C7
=HELLO("Janice")
Hello Janice!
Selecting the Fuzzy Matching examples and clicking Import, added them to the workbook.
Python for Excel
Home
Editor
Functions
Output
HELLO
TEXT_DISTANCE
FUZZY_TOP_N
Fuzzy Matching using textdistance
Import Notebook Functions
Enter notebook URL (advanced)
Add
Sheet1
Ready
Accessibility: Good to go
140%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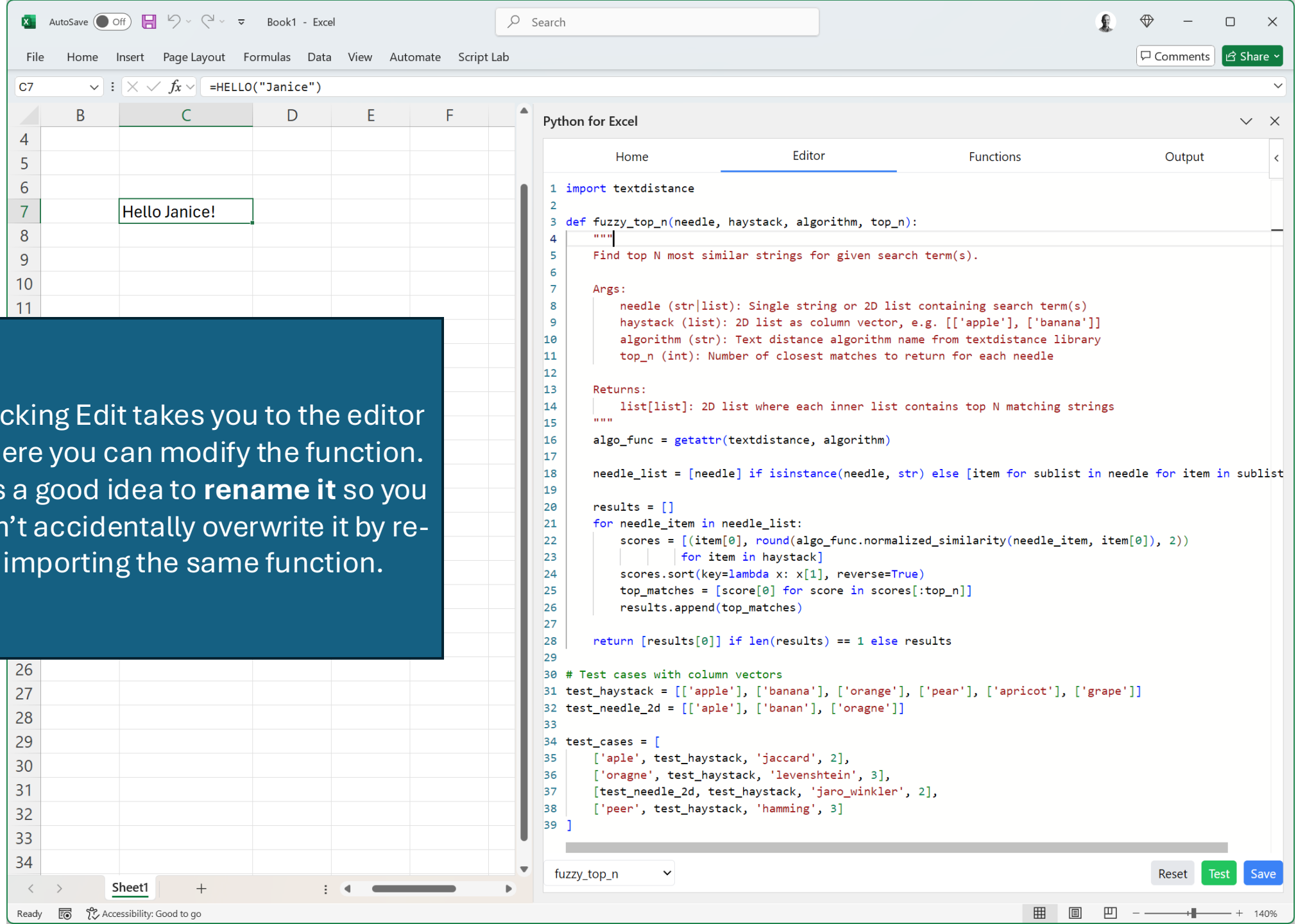
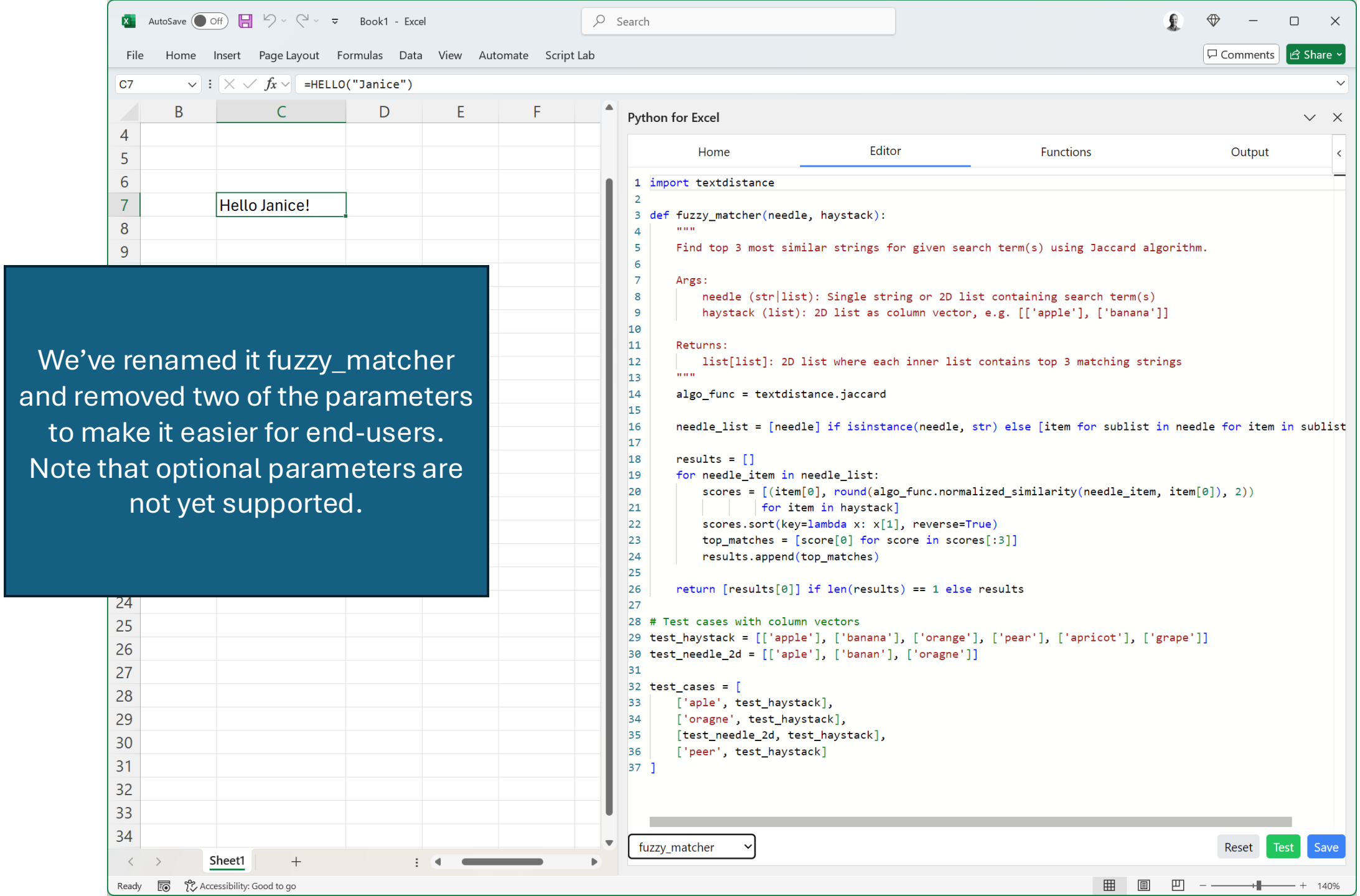
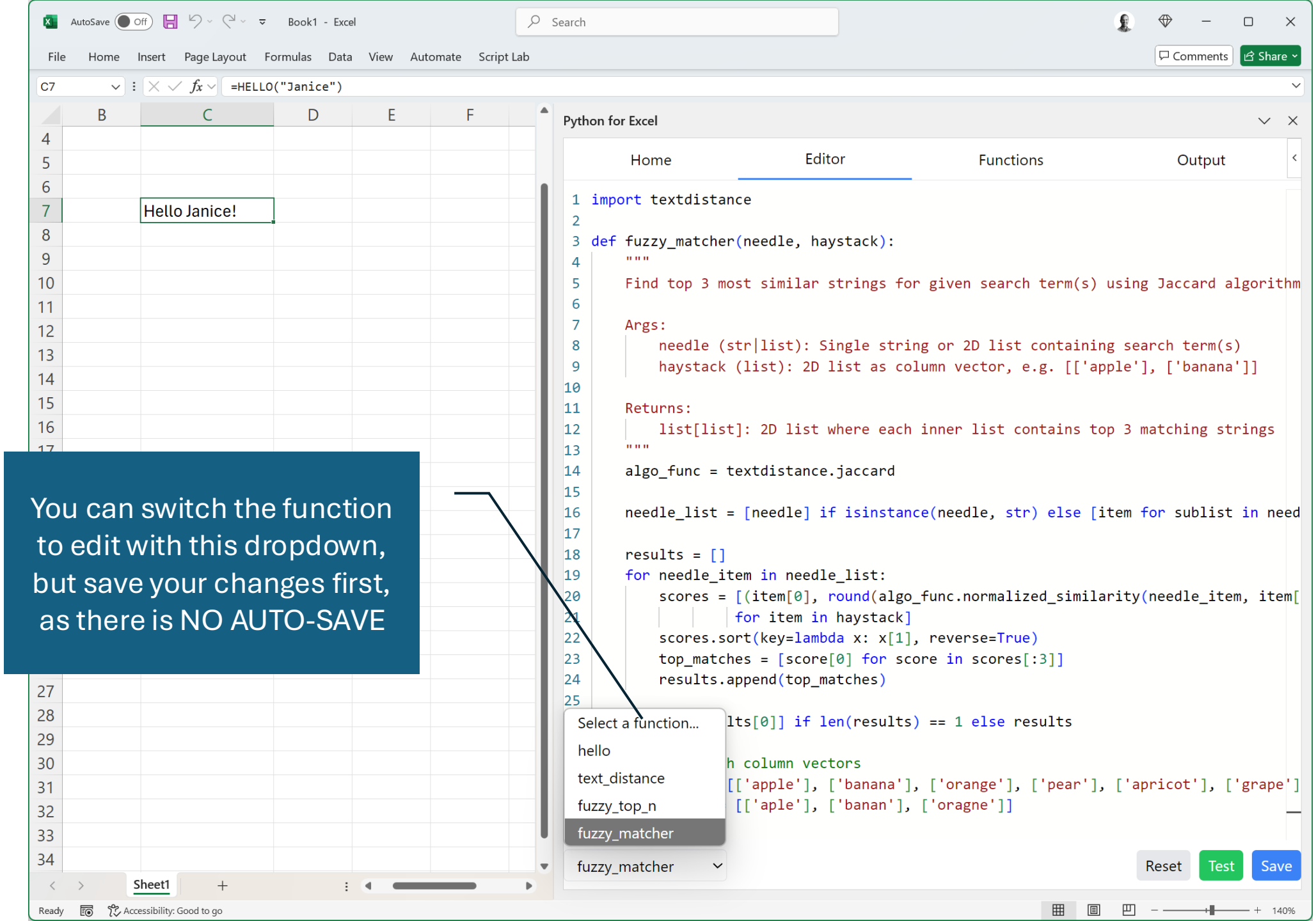
Python
Python
PREVIEW
C7
=HELLO("Janice")
Hello Janice!
Sheet1
Ready
Accessibility: Good to go
140%
Now let's edit FUZZY_TOP_N by clicking edit icon
Python for Excel
Home
Output
HELLO
TEXT_DISTANCE
FUZZY_TOP_N
Fuzzy Matching using textdistance
Import Notebook Functions
Enter notebook URL (advanced)
Add



Clicking Edit takes you to the editor where you can modify the function. It is a good idea to **rename it** so you don't accidentally overwrite it by re-importing the same function.



We've renamed it fuzzy_matcher and removed two of the parameters to make it easier for end-users. Note that optional parameters are not yet supported.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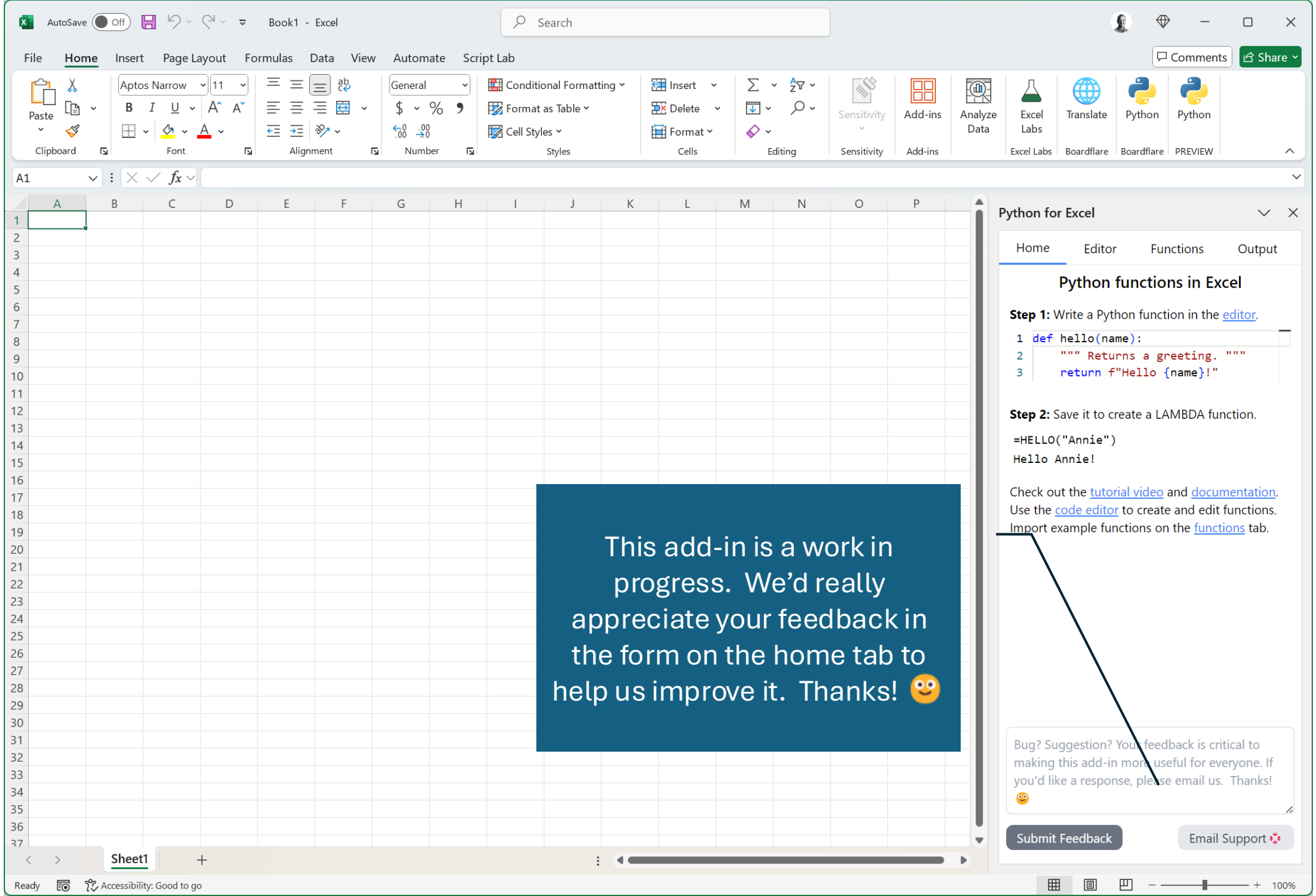
C7
=HELLO("Janice")
Hello Janice!
Python for Excel
Home Editor Functions Output
import textdistance
def fuzzy_matcher(needle, haystack):
"""
Find top 3 most similar strings for given search term(s) using Jaccard algorithm
Args:
needle (str|list): Single string or 2D list containing search term(s)
haystack (list): 2D list as column vector, e.g. [['apple'], ['banana']]
Returns:
list[list]: 2D list where each inner list contains top 3 matching strings
"""
algo_func = textdistance.jaccard
needle_list = [needle] if isinstance(needle, str) else [item for sublist in need
results = []
for needle_item in needle_list:
scores = [(item[0], round(algo_func.normalized_similarity(needle_item, item[
for item in haystack]
scores.sort(key=lambda x: x[1], reverse=True)
top_matches = [score[0] for score in scores[:3]]
results.append(top_matches)
lts[0]] if len(results) == 1 else results
h column vectors
[['apple'], ['banana'], ['orange'], ['pear'], ['apricot'], ['grape']
[['aple'], ['banan'], ['oragne']]
Select a function...
hello
text_distance
fuzzy_top_n
fuzzy_matcher
fuzzy_matcher
Reset
Test
Save
You can switch the function to edit with this dropdown, but save your changes first, as there is NO AUTO-SAVE
Sheet1
Ready
Accessibility: Good to go
140%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Python
Clipboard Font Alignment Number Styles Cells Editing Sensitivity Add-ins Excel Labs Boardflare Boardflare PREVIEW
A1
This add-in is a work in progress. We'd really appreciate your feedback in the form on the home tab to help us improve it. Thanks!
Python for Excel
Home Editor Functions Output
Python functions in Excel
Step 1: Write a Python function in the editor.
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return f"Hello {name}!"
Step 2: Save it to create a LAMBDA function.
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Hello Annie!
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Bug? Suggestion? Your feedback is critical to making this add-in more useful for everyone. If you'd like a response, please email us. Thanks!
Submit Feedback
Email Support
Sheet1
Ready
Accessibility: Good to go
100%

What we’re planning…

- Auto-save, or at least notification of un-saved changes.
- Optional arguments.
- AI assisted code writing.
- Option to store functions centrally so they can be added easily to any workbook instead of copy/pasting code.
- More pre-built functions.
- Easier ways to discover and add individual functions.
- Any other ideas you have, please let us know!