# You

I have following xlwings code:

import pandas as pd
import xlwings as xw
import yfinance as yf

@xw.func
def get\_stock\_data\_yf(symbol, start\_date, end\_date):
# Convert the date format from "dd/mm/yyyy" to "yyyy-mm-dd"
start\_date = datetime.datetime.strptime(start\_date, "%d/%m/%Y").strftime("%Y-%m-%d")
end\_date = datetime.datetime.strptime(end\_date, "%d/%m/%Y").strftime("%Y-%m-%d")

# Download historical market data

hist = yf.Ticker(symbol).history(start=start\_date, end=end\_date)

# Drop rows with missing values

hist.dropna(inplace=True)

# Prepare data for output

data = [hist.columns.values.tolist()] + hist.reset\_index().values.tolist()

return data

It returns traceback in excel:
"Exception: All elements of a 2d list or tuple must be of the same length
raise Exception(
File ""D:\Programs\Python\Lib\site-packages\xlwings\conversion\_*init*\_.py"", line 94, in write
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
xl\_result = conversion.write(ret, None, ret\_info[""options""])
File ""D:\Programs\Python\Lib\site-packages\xlwings\udfs.py"", line 504, in call\_udf
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
res = call\_udf(script, fname, args, this\_workbook, FromVariant(caller))
File ""D:\Programs\Python\Lib\site-packages\xlwings\com\_server.py"", line 235, in CallUDF
^^^^^^^^^^^
return func(\*args)
File ""D:\Programs\Python\Lib\site-packages\win32com\server\policy.py"", line 639, in *invokeex*
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
return S\_OK, -1, self.*invokeex*(dispid, lcid, wFlags, args, None, None)
File ""D:\Programs\Python\Lib\site-packages\win32com\server\policy.py"", line 310, in *invoke*
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
return self.*invoke*(dispid, lcid, wFlags, args)
File ""D:\Programs\Python\Lib\site-packages\win32com\server\policy.py"", line 305, in *Invoke*"

I think the problem is with output. xlwings to excel handles output as lists of list. IS that the problem?

# Copilot

Yes, you're correct. The error message you're seeing is due to the fact that xlwings expects a 2D list (or a list of lists) where all the inner lists are of the same length. This is because it tries to write this data into an Excel range, which needs to be rectangular.

In your case, the issue might be with this line of code:

data = [hist.columns.values.tolist()] + hist.reset\_index().values.tolist()

Here, you're creating a list of lists where the first list is the column names and the remaining lists are the rows of your dataframe. If your dataframe has missing values, then after resetting the index, some rows might be shorter than others, which leads to the error.

To fix this, you could fill the missing values in your dataframe before resetting the index and converting it to a list of lists. Here's how you can do it:

# Fill missing values with a default value (like 'N/A' or 0)

hist.fillna('N/A', inplace=True)

# Now reset the index and convert to list of lists

data = [hist.columns.values.tolist()] + hist.reset\_index().values.tolist()

This way, all rows in your dataframe will have the same length, and you should be able to return the data to Excel without any issues. I hope this helps! Let me know if you have any other questions. 😊

# You

Can you give me complete code replacing my code as above?

# Copilot

Sure, here's the modified version of your code:

import pandas as pd

import xlwings as xw

import yfinance as yf

import datetime

@xw.func

def get\_stock\_data\_yf(symbol, start\_date, end\_date):

# Convert the date format from "dd/mm/yyyy" to "yyyy-mm-dd"

start\_date = datetime.datetime.strptime(start\_date, "%d/%m/%Y").strftime("%Y-%m-%d")

end\_date = datetime.datetime.strptime(end\_date, "%d/%m/%Y").strftime("%Y-%m-%d")

# Download historical market data

hist = yf.Ticker(symbol).history(start=start\_date, end=end\_date)

# Fill missing values with a default value (like 'N/A' or 0)

hist.fillna('N/A', inplace=True)

# Prepare data for output

data = [hist.columns.values.tolist()] + hist.reset\_index().values.tolist()

return data

This code should now handle missing values properly and return data in a format that xlwings can write to Excel. Let me know if you have any other questions! 😊

Source(s)

1. [github.com](https://github.com/JoeHoulton/LeaveManagementAppQA/tree/8bc9f02c2b4fd07edf6f2ec1a5895ab69b346700/LeaveManagementAppQA%2Fdashboard%2Fviews.py)

# You

Why this error keeps on repeating. Something related to tuple:

"Exception: All elements of a 2d list or tuple must be of the same length
raise Exception(
File ""D:\Programs\Python\Lib\site-packages\xlwings\conversion\_*init*\_.py"", line 94, in write
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
xl\_result = conversion.write(ret, None, ret\_info[""options""])
File ""D:\Programs\Python\Lib\site-packages\xlwings\udfs.py"", line 504, in call\_udf
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
res = call\_udf(script, fname, args, this\_workbook, FromVariant(caller))
File ""D:\Programs\Python\Lib\site-packages\xlwings\com\_server.py"", line 235, in CallUDF
^^^^^^^^^^^
return func(\*args)
File ""D:\Programs\Python\Lib\site-packages\win32com\server\policy.py"", line 639, in *invokeex*
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
return S\_OK, -1, self.*invokeex*(dispid, lcid, wFlags, args, None, None)
File ""D:\Programs\Python\Lib\site-packages\win32com\server\policy.py"", line 310, in *invoke*
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
return self.*invoke*(dispid, lcid, wFlags, args)
File ""D:\Programs\Python\Lib\site-packages\win32com\server\policy.py"", line 305, in *Invoke*"

# Copilot

The error message you're seeing is related to the way xlwings handles data returned from Python to Excel. Specifically, it expects a 2D list (or a list of lists) where all the inner lists are of the same length. This is because it tries to write this data into an Excel range, which needs to be rectangular.

In your case, the issue might be with the data variable in your function:

data = [hist.columns.values.tolist()] + hist.reset\_index().values.tolist()

This line of code creates a list of lists where the first list is the column names and the remaining lists are the rows of your dataframe. If your dataframe has missing values, then after resetting the index, some rows might be shorter than others, which leads to the error.

Even though you're filling missing values with 'N/A' before resetting the index, there might be other reasons why the lengths of the lists are not equal. For example, if the reset\_index() function adds an additional column for the index, this could cause the first list (the column names) to be shorter than the others.

To debug this issue, you could print out the lengths of the lists in data right before returning it:

for row in data:

print(len(row))

This will show you the lengths of all the lists in data, which can help you identify where the discrepancy is coming from. Once you've identified the issue, you can adjust your code accordingly to ensure all lists in data are of the same length. I hope this helps! Let me know if you have any other questions. 😊

# You

Let's do a structural change. Convert data received from yahoo finance into list of list in python UDF and then retrun the output to excel.

# Copilot

Sure, I understand. Here's how you can modify your function to return a list of lists:

import pandas as pd

import xlwings as xw

import yfinance as yf

import datetime

@xw.func

def get\_stock\_data\_yf(symbol, start\_date, end\_date):

# Convert the date format from "dd/mm/yyyy" to "yyyy-mm-dd"

start\_date = datetime.datetime.strptime(start\_date, "%d/%m/%Y").strftime("%Y-%m-%d")

end\_date = datetime.datetime.strptime(end\_date, "%d/%m/%Y").strftime("%Y-%m-%d")

# Download historical market data

hist = yf.Ticker(symbol).history(start=start\_date, end=end\_date)

# Fill missing values with a default value (like 'N/A' or 0)

hist.fillna('N/A', inplace=True)

# Reset the index to include it in the output

hist.reset\_index(inplace=True)

# Convert the DataFrame to a list of lists

data = hist.values.tolist()

# Add the column names as the first list in the output

data.insert(0, hist.columns.tolist())

return data

This code should now handle missing values properly and return data in a format that xlwings can write to Excel. However, please note that I was not able to run this code due to the absence of the xlwings module in my current environment. You should be able to run this code in your local environment where xlwings is installed. Let me know if you have any other questions! 😊

Source(s)

1. [github.com](https://github.com/JoeHoulton/LeaveManagementAppQA/tree/8bc9f02c2b4fd07edf6f2ec1a5895ab69b346700/LeaveManagementAppQA%2Fdashboard%2Fviews.py)