Automation with Python

June 24, 2021

1 Automation of Systems and Processes with Python

Challenge:

The system updates every day sales from the previous day. Your daily job, as an analyst, is to send an email to your manager, as soon as you start work, with the revenue and the amount of products sold the day before.

Board e-mail: yourgmail+manager@gmail.com

Location where the system makes the sales of the previous day available: https://drive.google.com/drive/folders/1mhXZ3JPAnekXP_4vX7Z_sJj35VWqayaR?usp=sharing

To solve this, let's use pyautogui, a keyboard and mouse command automation library

Step 1 - Enter the company system https://drive.google.com/drive/folders/1mhXZ3JPAnekXP_4vX7Z_sJj35VW

Step 2 - Navigate to the location of our database (Folder: exportar)

Step 3 - Download the database (Name: Vendas - Dez.xlsx)

Step 4 - Calculate REVENUE and SOLD QTY

Step 5 - Send an email to your manager with the calculated information (Revenue and Qty)

[1]:
```
import pyautogui
import time
import pyperclip
```

[20]:
```
pyautogui.PAUSE = 1
pyautogui.alert("It will start, do NOT press anything")

# option 1 - open a new page and enter on chrome
# pyautogui.press("winleft")
# pyautogui.write("chrome")
# pyautogui.press("enter")

# option 2 - open a new tab
pyautogui.hotkey('ctrl', 't')

# open drive
```

```
link = "https://drive.google.com/drive/folders/
 ↪149xknr9JvrlEnhNWO49zPcw0PW5icxga?usp=sharing"
pyperclip.copy(link)
pyautogui.hotkey("ctrl", "v")
pyautogui.press("enter")
time.sleep(7)


# Calculate the position
# time.sleep(10)
# pyautogui.position()

# download the new database
pyautogui.click(560, 399, clicks=2)
time.sleep(2)
pyautogui.click(560, 399)
pyautogui.click(1610, 240)
pyautogui.click(1301, 805)
time.sleep(10)
```

[17]:
```
import pandas as pd
table = pd.read_excel("Vendas - Dez.xlsx")
display(table)
```

```
      Código Venda       Data                     ID Loja           Produto  \
0             65014 2019-12-01           Shopping Morumbi    Sunga Listrado
1             65014 2019-12-01           Shopping Morumbi   Casaco Listrado
2             65016 2019-12-01          Iguatemi Campinas   Sapato Listrado
3             65016 2019-12-01          Iguatemi Campinas            Casaco
4             65017 2019-12-01         Shopping SP Market        Gorro Liso
…               …        …                          …               …
7084          69996 2019-12-26  Center Shopping Uberlândia    Short Listrado
7085          69996 2019-12-26  Center Shopping Uberlândia           Mochila
7086          69996 2019-12-26  Center Shopping Uberlândia  Pulseira Estampa
7087          69997 2019-12-26          Ribeirão Shopping   Camisa Listrado
7088          69997 2019-12-26          Ribeirão Shopping       Short Linho

      Quantidade  Valor Unitário  Valor Final
0              5             114          570
1              1             269          269
2              2             363          726
3              1             250          250
4              3              92          276
…            …               …            …
7084           2             102          204
7085           4             270         1080
7086           1              87           87
7087           1             108          108
```

```
7088           2              133          266

[7089 rows x 7 columns]
```

[18]:
```
table.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 7089 entries, 0 to 7088
Data columns (total 7 columns):
 #   Column          Non-Null Count  Dtype
---  ------          --------------  -----
 0   Código Venda    7089 non-null   int64
 1   Data            7089 non-null   datetime64[ns]
 2   ID Loja         7089 non-null   object
 3   Produto         7089 non-null   object
 4   Quantidade      7089 non-null   int64
 5   Valor Unitário  7089 non-null   int64
 6   Valor Final     7089 non-null   int64
dtypes: datetime64[ns](1), int64(4), object(2)
memory usage: 387.8+ KB
```

[19]:
```
# We are going to calculate Revenue and Sold qty
Revenue = table["Valor Final"].sum()
Sold_qty = table["Quantidade"].sum()
print(Revenue)
print(Sold_qty)
```

```
2917311
15227
```

time.sleep(5) pyautogui.position()

[34]:
```
# Now we are going to send an email

import pyperclip

# open gmail tab
pyautogui.hotkey('ctrl', 't')
pyautogui.write("mail.google.com")
pyautogui.press('enter')
time.sleep(10)

# click on: compose
pyautogui.click(75, 253)

# fill in email information
time.sleep(10)
pyautogui.write("ginnaristephanie20@gmail.com")
pyautogui.press('tab')
```

```
pyautogui.press('tab')
subject = "Yesterday's Sales Report"
pyperclip.copy(subject)
pyautogui.hotkey("ctrl", 'v')
pyautogui.press("tab")
text = f"""
Dear Manager,

Yesterday's revenue was: R${Revenue:,.2f}
The number of products was: {Sold_qty:,}

Kind regards,
Stephanie"""
pyperclip.copy(text)
pyautogui.hotkey("ctrl", 'v')

# send email
pyautogui.hotkey('ctrl', 'enter')

# let me know once it is finished
pyautogui.alert("End of Automation. Your computer is now yours again.")
```

[34]: 'OK'