Examen de Simulación

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Realizar la automatización de procesos básicos cotidianos realizados en web

In [44]:
```
#Importación de librerias
from selenium import webdriver
from selenium.webdriver.common.action_chains import ActionChains
from selenium.webdriver.common.keys import Keys
from selenium.webdriver.support import expected_conditions as EC
import sys
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
from selenium.webdriver.support import expected_conditions
from selenium.webdriver.support.wait import WebDriverWait
from selenium.webdriver.common.keys import Keys
from selenium.webdriver.common.desired_capabilities import DesiredCapabilities
import time
from selenium.common.exceptions import NoSuchElementException
import pytest
import time
import json
import gspread
import pandas as pd
from oauth2client.service_account import ServiceAccountCredentials
import win32clipboard
import csv
```

Carga de los correos electrónicos desde una Hoja de Cálculo Online

In [45]:
```
import gspread
import pandas as pd
from oauth2client.service_account import ServiceAccountCredentials

datos = []
# define the scope
scope = ['https://spreadsheets.google.com/feeds','https://www.googleapis.com/auth/drive']

# add credentials to the account
creds = ServiceAccountCredentials.from_json_keyfile_name('proyectoexamen-303715-d592369f2

# authorize the clientsheet
client = gspread.authorize(creds)

# get the instance of the Spreadsheet
sheet = client.open('Examen')

# get the first sheet of the Spreadsheet
sheet_instance = sheet.get_worksheet(0)

# get the total number of columns
sheet_instance.col_count
## >> 26
```

```
# get the value at the specific cell
#sheet_instance.cell(col=1,row=1)
## >> <Cell R2C3 '63881'>

# get all the records of the data
records_data = sheet_instance.get_all_records()

# view the data
print (records_data)


for correos in records_data:

    datos.append(correos['Correo'])
    print (correos['Correo'])
```

```
[{'Nombre': 'David Egas', 'Correo': 'vichofernando_10@hotmail.es', 'Estado': 'Activo'},
{'Nombre': 'Christian Egas', 'Correo': 'degasf@est.ups.edu.ec', 'Estado': 'Activo'}, {'No
mbre': 'Bryan Pintado', 'Correo': 'bpintado6@gmail.com', 'Estado': 'Inactivo'}, {'Nombr
e': 'Leandro Leon', 'Correo': 'leandro6leon6@gmail.com', 'Estado': 'Activo'}, {'Nombre':
'Steven Yunga', 'Correo': 'bpintadoy@est.ups.edu.ec', 'Estado': 'Activo'}]
vichofernando_10@hotmail.es
degasf@est.ups.edu.ec
bpintado6@gmail.com
leandro6leon6@gmail.com
bpintadoy@est.ups.edu.ec
```

Librerías de Selenium

Código para enviar correos electrónicos con la publicidad

Esto en base a los correos obtenidos de la hoja de calculo online

Loguin a Hotmail

In [46]:
```
import time
driver = webdriver.Chrome(executable_path=r"C:\driver_chrome\chromedriver.exe")
driver.get("https://outlook.live.com/owa/")
driver.set_window_size(1552, 840)
driver.find_element(By.LINK_TEXT, "Iniciar sesión").click()
driver.find_element(By.ID, "i0116").send_keys("vichofernando_10@hotmail.es")
driver.find_element(By.ID, "i0118").send_keys("david1996")
time.sleep(2)
driver.find_element(By.ID, "idSIButton9").click()
time.sleep(2)
element = driver.find_element(By.ID, "idSIButton9")
time.sleep(2)
actions = ActionChains(driver)
actions.move_to_element(element).perform()
driver.find_element(By.ID, "idSIButton9").click()
time.sleep(2)
print('Termine')
```

```
Termine
```

Mensajes a diferentes usuarios

In [47]:
```
driver.get("https://outlook.live.com/mail/0/inbox")
time.sleep(2)
print('Llegue6')
driver.set_window_size(1552, 840)
driver.find_element(By.ID, "id__5").click()
time.sleep(5)
print('Llegue1')
element = driver.find_element(By.ID, "id__5")
actions = ActionChains(driver)
actions.move_to_element(element).perform()
element = driver.find_element(By.CSS_SELECTOR, "body")
actions = ActionChains(driver)
time.sleep(5)
print('Llegue2')
actions.move_to_element(element).perform()
#actions.move_to_element(element, 0, 0).perform()
time.sleep(2)
print('Llegue3')
driver.find_element(By.CSS_SELECTOR, ".ms-BasePicker-input").click()
time.sleep(5)
print('Llegue4')


for correos in records_data:

    driver.find_element(By.CSS_SELECTOR, ".ms-BasePicker-input").send_keys(correos['Corre
    time.sleep(5)
    print('Llegue5')
    driver.find_element(By.CSS_SELECTOR, ".ms-BasePicker-input").send_keys(Keys.ENTER)
    time.sleep(2)
    print('Llegue6')


#TextField965
time.sleep(5)
element = WebDriverWait(driver, 10).until(
                    EC.presence_of_element_located((
                        By.XPATH,
                        #"//*[@id='ReadingPaneContainerId']/div/div/div/div[1]/div[1]/div
                        #//*[@id="TextField1044"]
                        "//*[starts-with(@id, 'TextField')]"
                    )))
element.send_keys("Publicidad Política")



time.sleep(5)
WebDriverWait(driver, 10).until(
    EC.presence_of_element_located((
        By.XPATH,
        "//*[@id='ReadingPaneContainerId']/div/div/div/div[1]/div[2]/div[1]"
    ))).click()


time.sleep(5)
WebDriverWait(driver, 10).until(
    EC.presence_of_element_located((
        By.CSS_SELECTOR,
```

```
        "#ReadingPaneContainerId > div > div > div > div._29NreFcQ3QoBPNO3rKXKB0 > div._1
    ))).send_keys('C:/Users/LENOVO/Desktop/selenium/Codigos/datosCandidatos.png')


time.sleep(15)
WebDriverWait(driver, 10).until(
    EC.presence_of_element_located((
        By.XPATH,
        "//*[@id='ReadingPaneContainerId']/div/div/div/div[1]/div[3]/div[2]/div[1]/div/sp
    ))).click()
```

```
Llegue6
Llegue1
Llegue2
Llegue3
Llegue4
Llegue5
Llegue6
Llegue5
Llegue6
Llegue5
Llegue6
Llegue5
Llegue6
Llegue5
Llegue6
```

Publicar publicidad desde Canva a Facebook

Primero se realiza el login a la página de Canva y muestra la imagen que será posteada

In [26]:

```
driver = webdriver.Chrome(executable_path=r"C:\driver_chrome\chromedriver.exe")
driver.get("https://www.canva.com/login")
driver.set_window_size(1552, 840)
driver.find_element(By.ID, "__a11yId0").click()
driver.find_element(By.ID, "__a11yId0").send_keys("vichofernando10@gmail.com")
driver.find_element(By.ID, "__a11yId2").send_keys("1710301001Mami")
driver.find_element(By.ID, "__a11yId2").send_keys(Keys.ENTER)
time.sleep(5)


driver.get("https://www.canva.com/design/DAEVjwYcOvg/AZ8113nAPVbyeeA6eNzEVw/edit")
driver.set_window_size(1552, 840)
time.sleep(5)
driver.execute_script("window.scrollTo(0,0)")
driver.execute_script("window.scrollTo(0,0)")
driver.find_element(By.CSS_SELECTOR, ".qTzCnQ").click()
time.sleep(5)
element = driver.find_element(By.CSS_SELECTOR, ".y97GLw:nth-child(1) .teD6Yg:nth-child(1)
actions = ActionChains(driver)
actions.move_to_element(element).perform()
driver.find_element(By.CSS_SELECTOR, ".y97GLw:nth-child(1) .teD6Yg:nth-child(1) svg").cli
time.sleep(3)
driver.find_element(By.CSS_SELECTOR, ".L6S-tg .seUASg").click()
time.sleep(3)
driver.find_element(By.CSS_SELECTOR, ".\\_01h2nw").click()
time.sleep(3)
driver.find_element(By.CSS_SELECTOR, ".\\_01h2nw").send_keys("Información Presidencial")
```

```
time.sleep(3)
driver.find_element(By.CSS_SELECTOR, ".hv83Xw > .\\_38oWvQ").click()
time.sleep(3)
driver.find_element(By.CSS_SELECTOR, ".yaARjA").click()
time.sleep(2)
driver.quit()
```

Comprobar Comentarios de Publicación

In [27]:

```
from selenium import webdriver
from selenium.webdriver.common.action_chains import ActionChains
from selenium.webdriver.common.keys import Keys
from selenium.webdriver.support import expected_conditions as EC
import sys
import win32clipboard
from selenium.webdriver.common.by import By
from selenium.webdriver.common.action_chains import ActionChains
from selenium.webdriver.support import expected_conditions
from selenium.webdriver.support.wait import WebDriverWait
from selenium.webdriver.common.keys import Keys
from selenium.webdriver.common.desired_capabilities import DesiredCapabilities
import time
from selenium.common.exceptions import NoSuchElementException
import csv



class comentarios_likes():
    def __init__(self, driver, url, username, password,url_publicacion):
        self.driver = webdriver.Chrome(driver)
        self.driver.get(url)
        self.login(username,password)
        self.recolectar(url_publicacion)
        self.driver.quit()



    def ecepciones(self,e):
        print(e)
        self.driver.quit()
        sys.exit()

    def login(self, username, password):
        try:
            self.driver.maximize_window()
            #self.driver.switch_to.frame(0)
            time.sleep(3)
            email_box = self.driver.find_element_by_id('email')
            email_box.send_keys(username)

            pass_box = self.driver.find_element_by_id('pass')
            pass_box.send_keys(password)

            login_btn_box = self.driver.find_element_by_id('u_0_b')
            login_btn_box.click()
        except NoSuchElementException as e:
            self.ecepciones(e)
        except Exception as e:
            self.ecepciones(e)
```

```
    def recolectar(self,url_publicacion):
        time.sleep(5)
        self.driver.get(url_publicacion)

        comentarios = []
        """time.sleep(5)
        counter = self.driver.find_element_by_xpath('').get_attribute('innerHTML')
        print(count)"""

        time.sleep(5)
        lista_comentarios = self.driver.find_elements(
            By.XPATH,
            "//div[@style='text-align: start;']"
        )

        lista_usuarios = self.driver.find_elements(
            By.XPATH,
            "//a[@class='oajrlxb2 g5ia77u1 qu0x051f esr5mh6w e9989ue4 r7d6kgcz rq0escxv n
        )

        for usuario, comentario in zip(lista_usuarios, lista_comentarios):
            comentarios.append({"usuario": usuario.text, "comentario": comentario.text})

        time.sleep(10)
        self.driver.quit()

        informe = open("C:/Users/LENOVO/Desktop/selenium/Codigos/estadisticas.csv", "w")
        escritor = csv.DictWriter(informe, fieldnames=["usuario", "comentario"])
        escritor.writeheader()
        escritor.writerows(comentarios)

if __name__ == '__main__':
    driver ="C:\driver_chrome\chromedriver.exe"
    comentarios_likes(driver,"https://www.facebook.com/","davidegas65@yahoo.es","davchman
```

Comprobar datos de comentarios

In [33]:
```
with open('estadisticas.csv', newline='') as File:
    reader = csv.reader(File)
    for row in reader:
        print(row)
```

```
['usuario', 'comentario']
[]
['ChatBot Ups', 'hola']
[]
```

Imagen publicada en la página comercial de Facebook

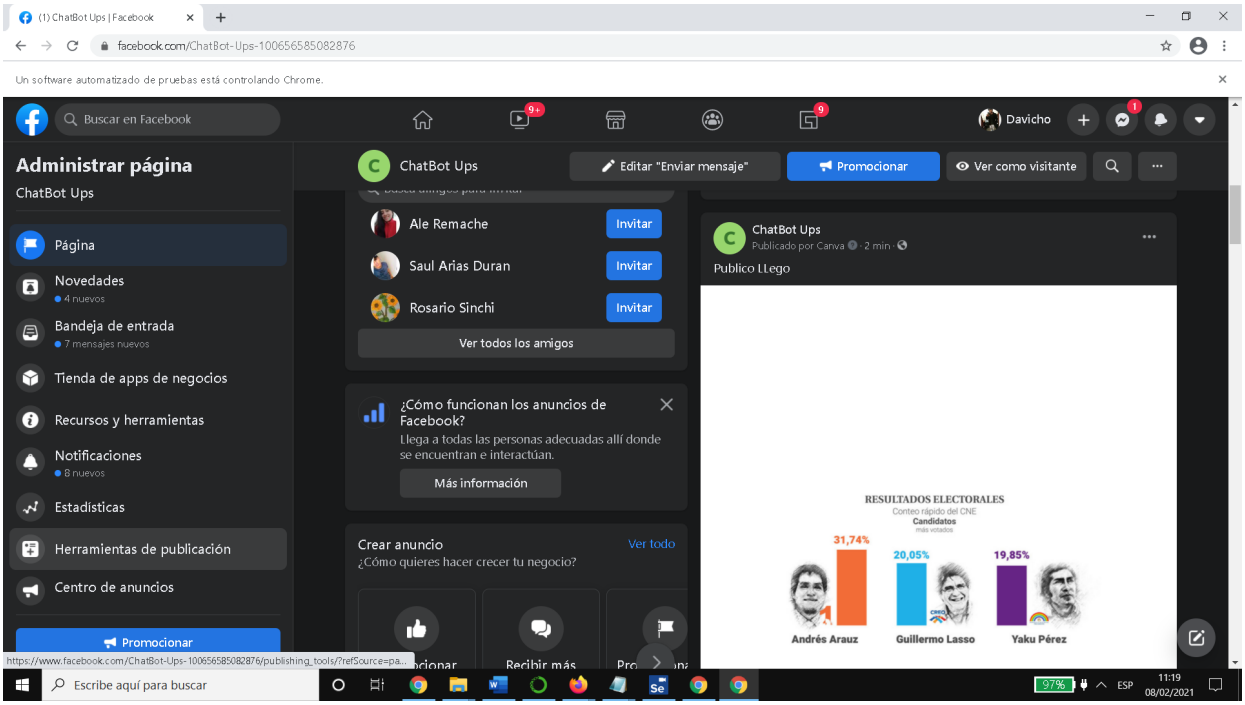
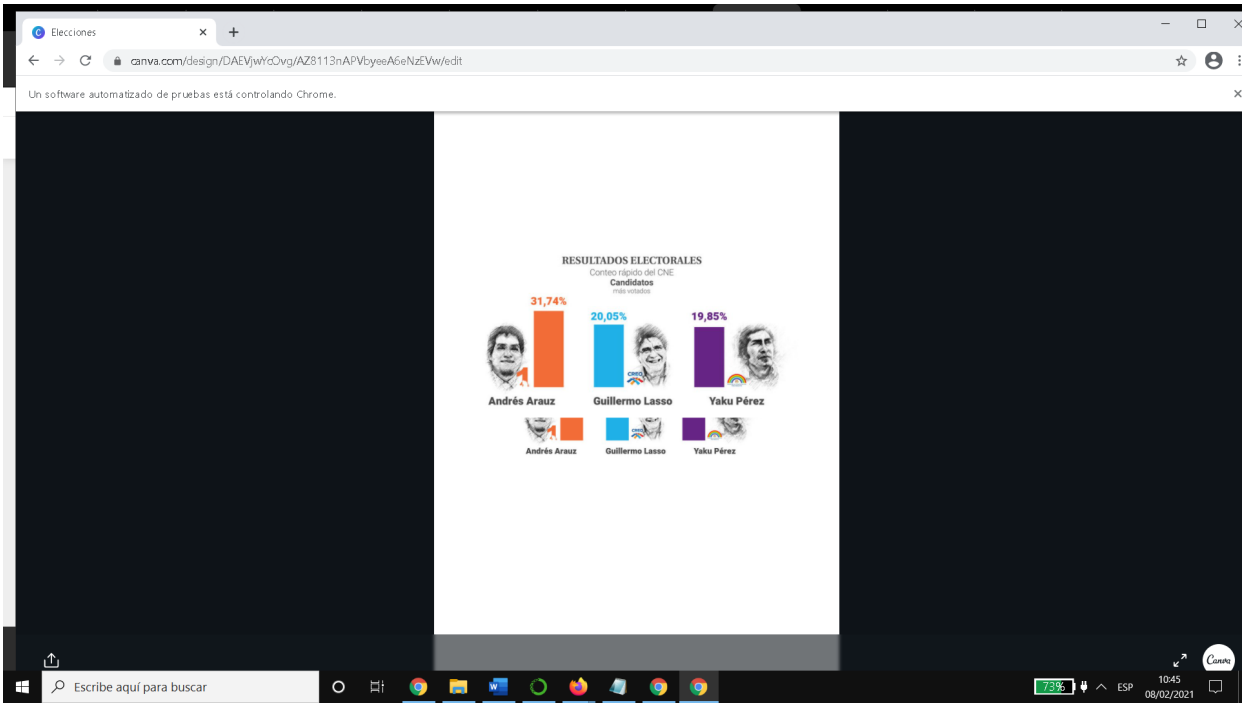


Imagen de Publicidad Política



Generar Estadísticas de visita a la página

In [16]:
```
import time
driver = webdriver.Chrome(executable_path=r"C:\driver_chrome\chromedriver.exe")
driver.get("https://www.facebook.com/")
driver.set_window_size(1552, 840)
driver.find_element(By.ID, "email").send_keys("davidegas65@yahoo.es")
driver.find_element(By.ID, "pass").send_keys("davchman1996")
driver.find_element(By.ID, "pass").send_keys(Keys.ENTER)
element = driver.find_element(By.CSS_SELECTOR, ".cxgpxx05 > div > div > .oajrlxb2 .gs1a9y
```

```
actions = ActionChains(driver)
actions.move_to_element(element).perform()
driver.find_element(By.CSS_SELECTOR, ".cxgpxx05 > div > div > .oajrlxb2 .gs1a9yip").click
time.sleep(5)
driver.get("https://www.facebook.com/ChatBot-Ups-100656585082876/insights/?referrer=page_
driver.set_window_size(1552, 840)
driver.switch_to.frame(0)
time.sleep(2)
driver.find_element(By.LINK_TEXT, "Exportar datos").click()
time.sleep(2)
driver.find_element(By.CSS_SELECTOR, ".layerConfirm").click()
```

In [17]:
```
import shutil
import os
carpeta = 'D:\\Descargas'
for filename in os.listdir(carpeta):
    if filename.endswith('.xls'):
        shutil.move("D:/Descargas/"+filename, "C:/Users/LENOVO/Desktop/selenium/Codigos")
        print("eliminando: " + str(filename))
        os.unlink(filename)
```

In [18]:
```
import pandas as pd
from bs4 import BeautifulSoup

def convert_to_xlsx():
    with open('Facebook Insights Data Export - ChatBot Ups - 2021-02-08.xls') as xml_file
        soup = BeautifulSoup(xml_file.read(), 'xml')
        writer = pd.ExcelWriter('sample.xlsx')
        for sheet in soup.findAll('Worksheet'):
            sheet_as_list = []
            for row in sheet.findAll('Row'):
                sheet_as_list.append([cell.Data.text if cell.Data else '' for cell in row
            pd.DataFrame(sheet_as_list).to_excel(writer, sheet_name=sheet.attrs['ss:Name'

        writer.save()

convert_to_xlsx()
```

Leer el archivo con las estadísticas de visitas a la página

In [19]:
```
import pandas as pd

df = pd.read_excel('sample.xlsx')
df
```

Out[19]:

Fecha	Lifetime Total Likes	Daily New Likes	Daily Unlikes	Daily Page Engaged Users	Weekly Page Engaged Users	28 Days Page Engaged Users	Daily Total Reach	Weekly Total Reach	28 Days Total Reach

	Fecha	Lifetime Total Likes	Daily New Likes	Daily Unlikes	Daily Page Engaged Users	Weekly Page Engaged Users	28 Days Page Engaged Users	Daily Total Reach	Weekly Total Reach	28 Days Total Reach
0	NaN	Lifetime: The total number of people who have ...	Daily: The number of new people who have liked...	Daily: The number of Unlikes of your Page (Uni...	Daily: The number of people who engaged with y...	Weekly: The number of people who engaged with ...	28 Days: The number of people who engaged with...	Daily: The number of people who had any conten...	Weekly: The number of people who had any conte...	28 Days: The number of people who had any cont...
1	2021-01-13T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
2	2021-01-14T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
3	2021-01-15T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
4	2021-01-16T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
5	2021-01-17T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
6	2021-01-18T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
7	2021-01-19T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
8	2021-01-20T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
9	2021-01-21T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
10	2021-01-22T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
11	2021-01-23T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
12	2021-01-24T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
13	2021-01-25T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
14	2021-01-26T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
15	2021-01-27T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
16	2021-01-28T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

	Fecha	Lifetime Total Likes	Daily New Likes	Daily Unlikes	Daily Page Engaged Users	Weekly Page Engaged Users	28 Days Page Engaged Users	Daily Total Reach	Weekly Total Reach	28 Days Total Reach
17	2021-01-29T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
18	2021-01-30T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
19	2021-01-31T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
20	2021-02-01T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	1	1	1
21	2021-02-02T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	1	1
22	2021-02-03T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	1	1
23	2021-02-04T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	1	1
24	2021-02-05T00:00:00.000	NaN	NaN	NaN	NaN	NaN	NaN	NaN	1	1
25	2021-02-06T00:00:00.000	NaN	NaN	NaN	1	1	1	1	2	2
26	2021-02-07T00:00:00.000	NaN	NaN	NaN	1	1	1	1	2	2
27	2021-02-08T00:00:00.000	2	NaN	NaN	1	1	1	1	1	2
28	2021-02-09T00:00:00.000	2	NaN	NaN	NaN	1	1	NaN	1	2

29 rows × 139 columns

In [20]:
```
import shutil
import os
carpeta = 'C:/Users/LENOVO/Desktop/selenium/Codigos'
for filename in os.listdir(carpeta):
    if filename.endswith('.xls') or filename.endswith('xlsx'):

        print("eliminando: " + str(filename))
        os.unlink(filename)
```

```
eliminando: Facebook Insights Data Export - ChatBot Ups - 2021-02-08.xls
eliminando: sample.xlsx
```