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**Task:**

**1. Explain the concept selenium with python**

Selenium – Python package

Selenium package is mostly used for automation like in web browsers. Or in detail, it is an open-source web-based automation tool. Python language is used with selenium for testing and the python API’s empower you to connect with the browser through selenium. Selenium can send the standard python commands to different browsers, despite variation in their browser’s design.

Installing selenium in ide:

* Pip install selenium

Sample code for selenium with python

from selenium import webdriver

username=”varunkumar123”

password=”varun123”

url=<https://www.facebook.com/>

diver=webdriver.Chrome('C:\\Users\\vaishnavi\\Documents\\chromedriver\_win32\\chromedriver')

driver.get(url)

driver.find\_element\_by\_id(‘email).send\_keys(username)

driver.find\_element\_by\_id(‘pass).send\_keys(password)

button = driver.find\_element\_by\_id(‘u\_0\_b’)

button.click()

Output:

This code explain about automation of web browser. I took an example of Facebook Url ,this code is help to open Facebook page and enter username and password and click submit button automatically. Then the account holder page will be opened.

This is how selenium package with python helps for automation.

**2. String operations in python with example**

String is a sequence of character. For example “hello” is a string that declares to a variable, as per computer that deals with numbers 0 and 1, even though we can see the characters on the screen in ide’s or any other environment which internally stored and manipulated as a combination of 0’s and 1’s.

Creating string in python:

My\_string = “hello”

print(My\_string)

Output:

hello

Accessing characters in a string:

1.string=’hello’

print(‘String = ‘,string)

Output:

String = hello

2. string=’hello’

print(‘first character = ‘,string[0])

Output:

first character = h

3. string=’hello’

print(‘last character = ‘,string[-1])

Output:

last character = o

4. string=’hello’

print(‘character = ‘,string[1:3])

Output:

character = el

5. string=’hello’

print(‘character = ‘,string[2:])

Output:

character = llo

6. concatenation of Strings

str1 = “Hello”

str2 = “Sach”

print(“str1 + str2 = “, str1 + str2)

Output:

HelloSach

Or print(“str1 \* 3= “, str1\*3)

Output:

HelloHelloHello

7. Iterating through a string

count=0

for letter in “Hello World”:

if(letter == ‘1’):

count +=1

print(count,”letters found”)

Output:

3 letters found

8.print(‘’’He said,”what’s there?”’’)

Output:

He said, “what’s there?”

9.print(‘’He said,”what\’s there?”’)

Output:

He said, “what’s there?”

10.student=”{}, {}, and {}.format(‘John’,’Bill’,’Sean’)

Print(“default\_order =”,student)

Output:

default\_order = John, Bill, Sean

11.student=”{1}, {0}, and {2}.format(‘John’,’Bill’,’Sean’)

Print(“positional\_order =”,student)

Output:

positional\_order = Bill, John, Sean

12.student=”{b}, {c}, and {a}.format(a=‘John’,c=’Bill’,b=’Sean’)

Print(“keyword\_order =”,student)

Output:

keyword\_order = Sean , Bill, John

**3. Roll of AI with python**

Python plays a vital role in AI coding by providing it with good frameworks like machine learning in python and D3.js-Data-Driven Documents in JS. Python has a standard library in development, and a few for AI. With the python programming language, a script most common used by the developers can be used to build your personal AI assistant to perform task designed by the users.

* Machine learning- fulfils almost every need in this field.
* D3.js-this is the one of the most powerful and easy to use tool for visualisation.