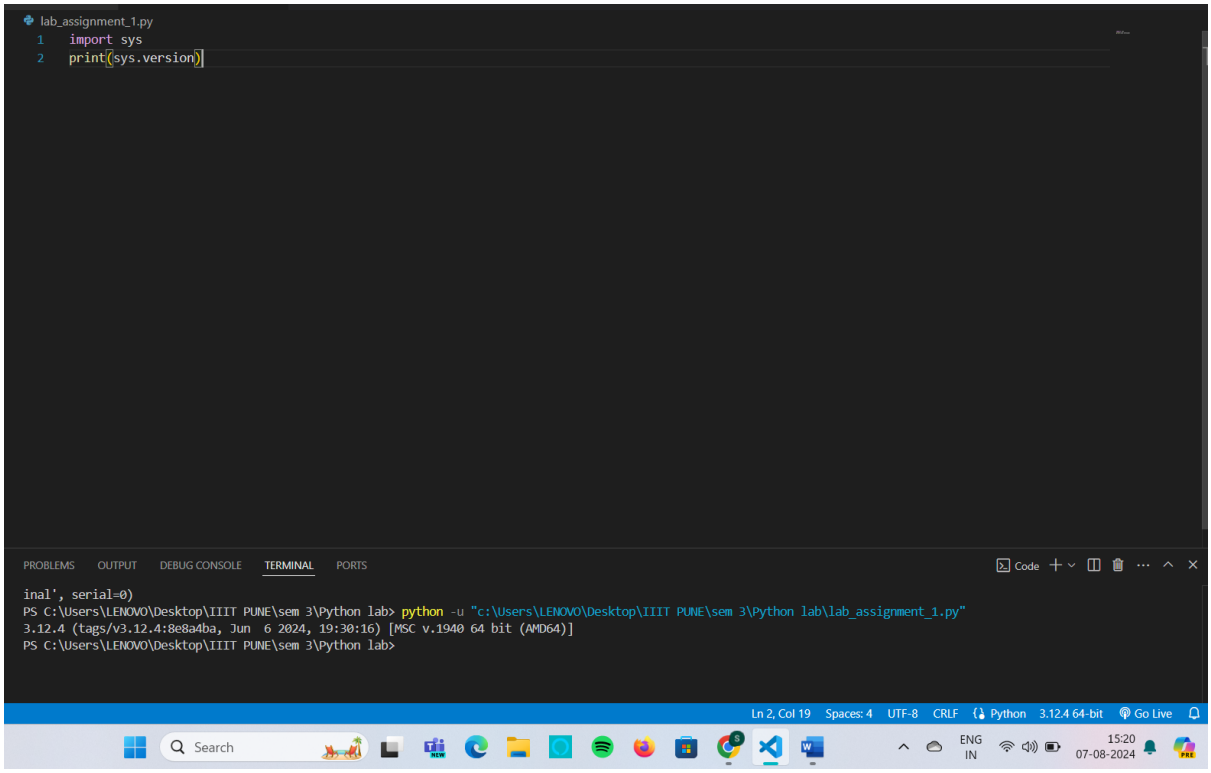
Python Lab Assignment 1

Name: Shravani Vikram Patwardhan

MIS: 112315179 (G4)

Q.1 Write a Python program to print the version of Python you are using.

Code and output:



Q.2 Write a Python program to list all the keyword in Python.

Code:
```
import keyword

print(keyword.kwlist)
```
Output:
```
Sejal, the year that you will turn 100 is: 2104
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab> python -u "c:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab\lab_assignment_1.py"
['False', 'None', 'True', 'and', 'as', 'assert', 'async', 'await', 'break', 'class', 'continue', 'def', 'del', 'elif', 'else', 'except', 'finally
', 'for', 'from', 'global', 'if', 'import', 'in', 'is', 'lambda', 'nonlocal', 'not', 'or', 'pass', 'raise', 'return', 'try', 'while', 'with', 'yi
eld']
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab>
```

Q.3 Create a program that asks the user to enter their name and their age. Print out a message addressed to them that tells them the year that they will turn 100 years old.

Code:
```
name = input("Enter your name:")

age = int(input("Enter your age:"))
after_age = (100-age) + 2024
```

```
print(f"{name}, the year that you will turn 100 is: {after_age}")
Output:
  PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab> python -u "c:\Users\LENOVO\Desktop
  Enter your name:Sejal
  Enter your age:20
  Sejal, the year that you will turn 100 is: 2104
  PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab>
```

Q.4 Write a Python program that accepts the radius of a circle from the user and compute the area (Hint: import math and use math.pi)

Code:

```
import math

radius = int(input("Enter the radius of the circle:"))
area = (math.pi)*radius*radius
circumference = (math.pi)*2*radius
print("The area of circle is:",area)
print(f"The circumference of the circle is: {circumference:.4f}")
```

```
The area of circle is: 50.26548245743669
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab> python -u "c:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab\lab_assignment_1.py"
Enter the radius of the circle:3
The area of circle is: 28.274333882308138
The circumference of the circle is: 18.8496
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab>
Ln 6, Col 66 (240 selected)  Spaces: 4  UTF-8  CRLF  Pytho
```

Q.5 Ask the user for a number. Depending on whether the number is even or odd, print oyt an appropriate message to the user

Code:

```
user_input = int(input("Enter an even or odd number:"))

if(user_input %2 == 0):
    print("The given number",user_input,"is even")
else:
    print("The given number",user_input,"is odd")
```

Output:

```
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab> python -u "c:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab\lab_assignment_1.py"
Enter an even or odd number:4
The given number 4 is even
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab> python -u "c:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab\lab_assignment_1.py"
Enter an even or odd number:9
The given number 9 is odd
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab>
Ln 5, Col 50  Spaces: 4  UTF-8  CRLF  Python
```

Q.6 Check whether 0.1 + 0.2 = 0.3 hold true in Python? If not find the ways to make it true.

Code:

```
if(0.1+0.2==0.3):

    print("True")
else:
    print("False")
```

```
#As the above 0.1+0.2 is false, we need to convert them into the same type to
limit the decimal points
value = int(0.1) + int(0.2) == int(0.3)
print(value)
```

Output:

```
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab> python -u "c:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab
False
True
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab>
```

Ln 7, Col 13 (222 selected)

Q.7 Write a Python program to get a single string from two given strings, separated by a space and swap the first two characters of each string

Code:

```
name = "python"

name2 = "lab"
new_string = name + " " + name2
print(new_string)
swap1 = name2[0:2] + name[2:]
swap2 = name[0:2] + name2[2:]
re_string = swap1 + " " + swap2
print(re_string)
```

Output:

```
 pyb
 PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab> python -u "c:\Users\LENOVO\Desktop\III
 y"
 python lab
 lathon pyb
 PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab>
```

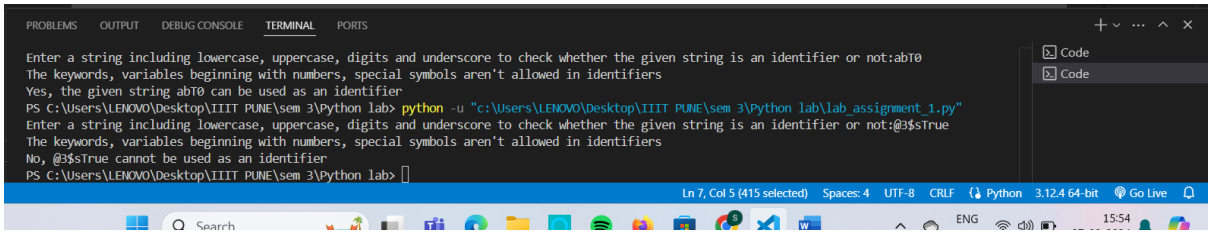
Q.8 Ask the user for a string containing lowercase letters, uppercase letters, digits or underscores or combination of all. Write a Python program to check whether the string is a valid identifier.

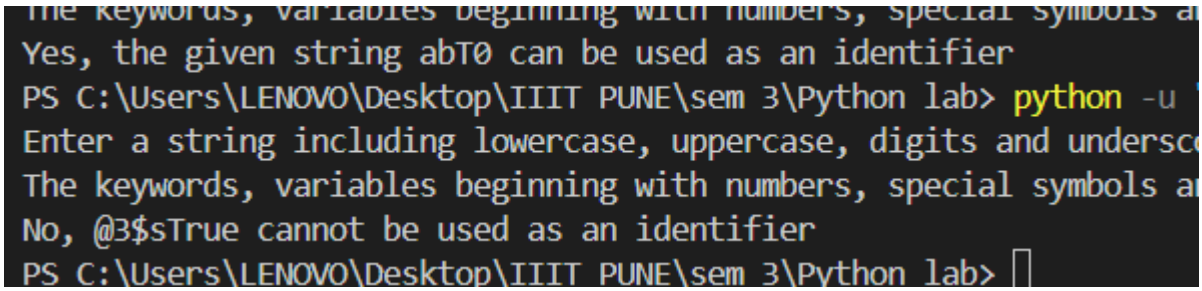
Code:

```
name = input("Enter a string including lowercase, uppercase, digits and
underscore to check whether the given string is an identifier or not:")

print("The keywords, variables beginning with numbers, special symbols aren't
allowed in identifiers")
if(name.isidentifier()):
    print("Yes, the given string",name,"can be used as an identifier")
else:
    print("No,",name,"cannot be used as an identifier")
```

Output:





Q.9 Write a Python Program to change a given string to a new string where the first and last chars have been exchanged.

Code:

```
name = input("Enter a string:")

new_string = name[-1] + name[1:-1] + name[0]
print("The new string with first and last characters swapped is:",new_string)
```

Output:

```
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab> python -u "c:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab\lab_assignment_1.py"
Enter a string:hello there
The new string with first and last characters swapped is: eello therh
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab>
```

Q.10 Write a Python script that takes input from the user and displays that input back in upper and lower cases.

Code:

```
user_input = input("Enter a string to be displayed in upper and lowercase:")

print("The given string is:",user_input)
print("The string in uppercase is:",user_input.upper())
print("The string in lowercase is:",user_input.lower())
```

Output:

```
Enter a string to be displayed in upper and lowercase:Python Lab
The given string is: Python Lab
The string in uppercase is: PYTHON LAB
The string in lowercase is: python lab
PS C:\Users\LENOVO\Desktop\IIIT PUNE\sem 3\Python lab>
```

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