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Date: 7/8/24

Assignment 1

Question 1:

Write python program to get the version you are using

Code:

```
import sys
```

```
print("your python version is:")
```

```
print(sys.version)
```

Output:

```
PS C:\Users\Vedang shendye> py
```

```
> python -u "d:\Btech 3rd semester\Python lab\q1 7aug.py"
```

```
your python version is:
```

```
3.12.4 (tags/v3.12.4:8e8a4ba, Jun 6 2024, 19:30:16) [MSC v.1940 64 bit (AMD64)]
```

```
PS C:\Users\Vedang shendye>
```

Question 2:

Python program to list all keywords in python

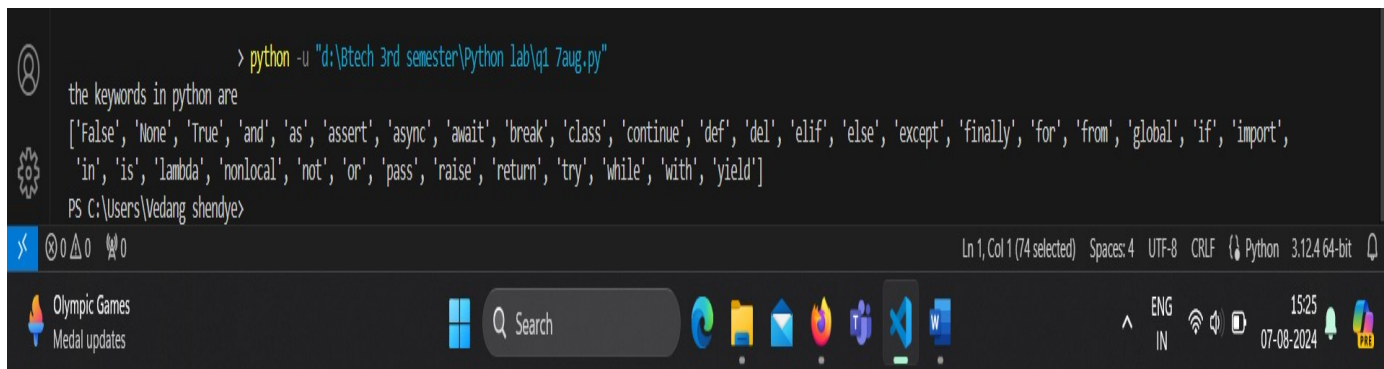
Code:

```
import keyword

print("the keywords in python are")

print(keyword.kwlist)
```

Output:

A screenshot of a Windows command prompt window. The title bar reads "> python -u \"d:\\Btech 3rd semester\\Python lab\\q1 7aug.py\"". The command prompt shows the output of the script: "the keywords in python are" followed by a list of 33 Python keywords in single quotes: ['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', 'yield']. The prompt then shows the directory path "PS C:\\Users\\Vedang shendye>". The taskbar at the bottom shows the Start button, a search bar, and several application icons including the Olympic Games logo, File Explorer, Mail, Edge, and Word. The system tray on the right shows the date and time as 07-08-2024 15:25.

Question 3:Create a python program that asks user to enter their age. Print message addressed to them telling the year when they will turn 100

Code:

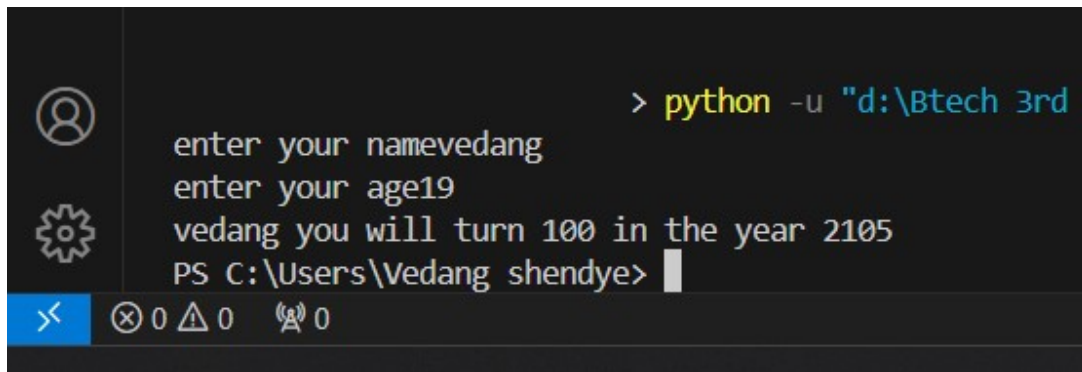
```
import keyword

name=input("enter your name")

age=input("enter your age")

print(name, "you will turn 100 in the year",2024-int(age)+100)
```

Output:



```
> python -u "d:\Btech 3rd :
enter your namevedang
enter your age19
vedang you will turn 100 in the year 2105
PS C:\Users\Vedang shendye>
```

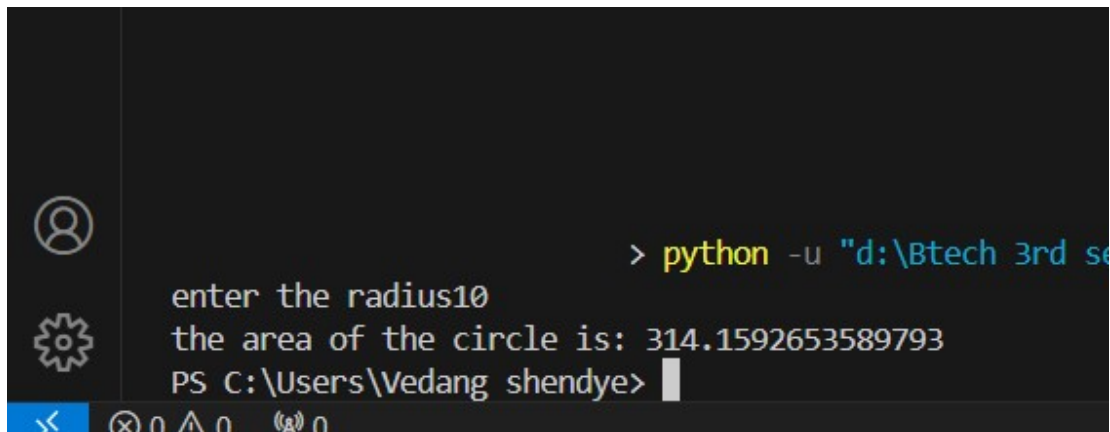
Question 4:

Write a python program that accepts the radius of circle from the user and prints the area

Code:

```
import math
radius=int(input("enter the radius"))
area=float(radius*radius*math.pi)
print("the area of the circle is:",area)
```

Output:



```
> python -u "d:\Btech 3rd se
enter the radius10
the area of the circle is: 314.1592653589793
PS C:\Users\Vedang shendye>
```

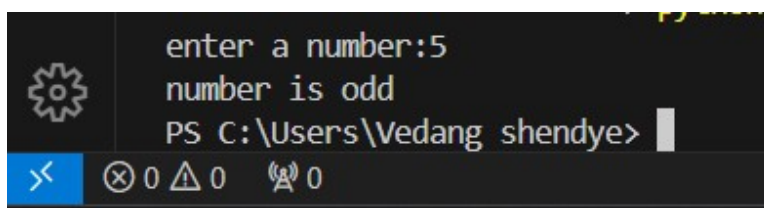
Question 5:

Ask the user for a number. Depending upon if the number is even or odd, display an appropriate message to user.

Code:

```
import math
num=int(input("enter a number:"))
if num%2==0:
    print("number is even")
else:
    print("number is odd")
```

Output:



```
enter a number:5
number is odd
PS C:\Users\Vedang shendye>
```

Question 6: Check whether $0.1+0.2==3$ holds true in python. If not, find ways to make it.

Code:

```
import math

from decimal import *

getcontext().prec=6

a=0.1

b=0.2

if a+b==0.3 :

    print("true")

else:

    print("false")

print("an easy fix is:")

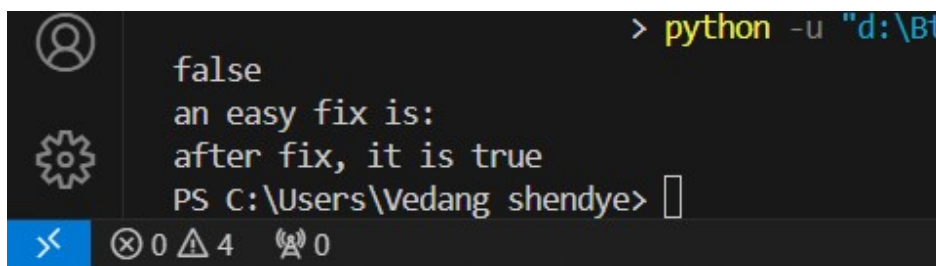
if Decimal("0.3") - Decimal("0.2") == Decimal("0.1"):

    print("after fix, it is true")

else:

    print("after fix, it is false")
```

Output:



```
> python -u "d:\Bt
false
an easy fix is:
after fix, it is true
PS C:\Users\Vedang shendye>
```

Question 7:

Write a python program to get a single string from two given string, separated by a space and swap the two first characters of the string

Code:

```
string1=str(input('enter the first string:'))
string2=str(input("enter the second string:"))
string3=string2[0]+string1[1:]
string4=string1[0]+string2[1:]
string5=string3+" "+string4
print("the new string formed from the two strings is:",string5)
```

Output:

```
PS C:\Users\Vedang shendye> python -u "d:\Btech 3rd semester\Python lab\q1 7aug.py"
enter the first string:hello
enter the second string:world
the new string formed from the two strings is: wello  horld
PS C:\Users\Vedang shendye> █
```

Question 8:Ask user for a string containing lowercase characters, uppercase characters, digits or underscores or combination of all. Write a python program to see if the string is valid identifier

Code:

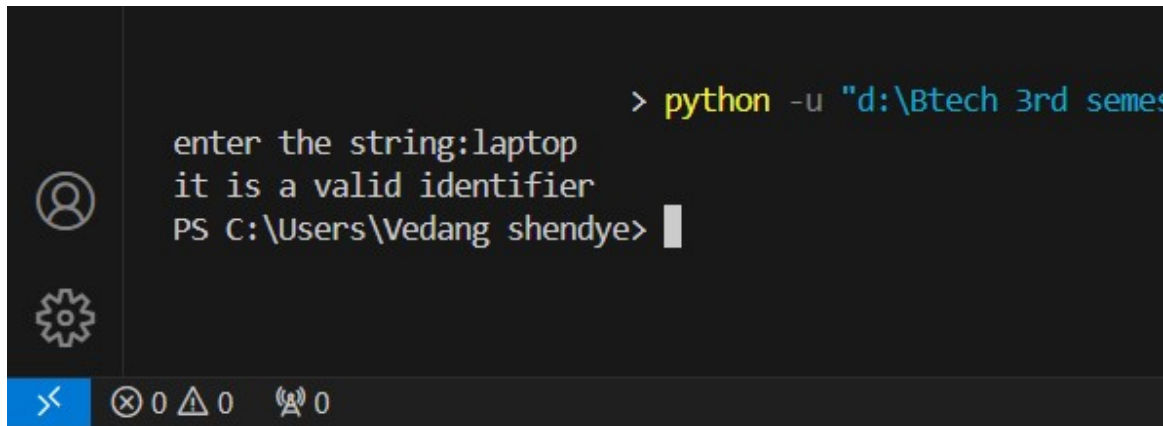
```
string1=str(input('enter the string:'))
if string1.isidentifier():
```

```
print("it is a valid identifier")
```

else:

```
print("it is not a valid identifier")
```

Output:



```
> python -u "d:\Btech 3rd semes
enter the string:laptop
it is a valid identifier
PS C:\Users\Vedang shendye>
```

Question 9:

Write a python program to change the given string into a new string where first and last characters are exchanged

Code:

```
string1=str(input('enter the string:'))
a=int(len(string1))
string2=string1[1:a-1:1]
string3=string1[a-1]+string2+string1[0]

print(" now the string becomes :",string3)
```

Output:



```
> python -u "d:\Btech 3rd semester\Python lab\q1 7aug.py"
enter the string:hello
now the string becomes : oellh
PS C:\Users\Vedang shendye>
```

Question 10:

Write a python script that takes an input string from user and prints that string back in upper and lower cases

Code:

```
string1=str(input('enter the string:'))
string2=string1.upper()
print("the given string in upper case is: ",string2)
string3=string1.lower()
print("the given string in lower case is: ",string3)
```

Output:



> python -u "d:\Btech 3rd semester\Python lab"



enter the string:Hello

the given string in upper case is: HELLO

the given string in lower case is: hello

PS C:\Users\Vedang shendye>

