Programming Laboratory-I

Assignment No-8

(Python basics)

2020BTECS00005

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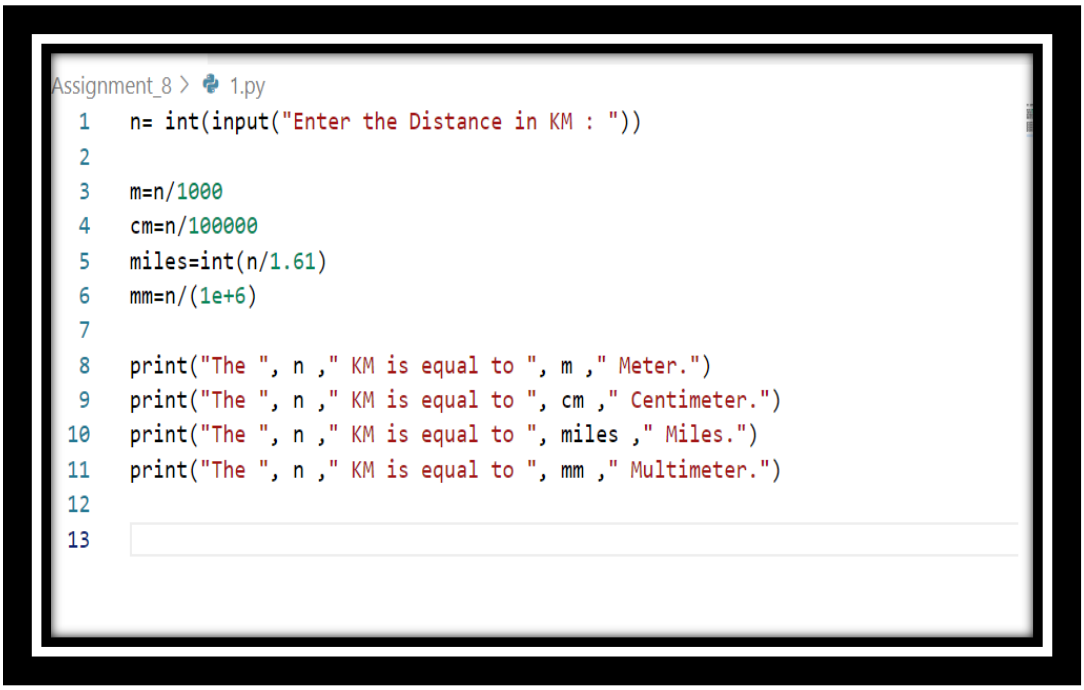
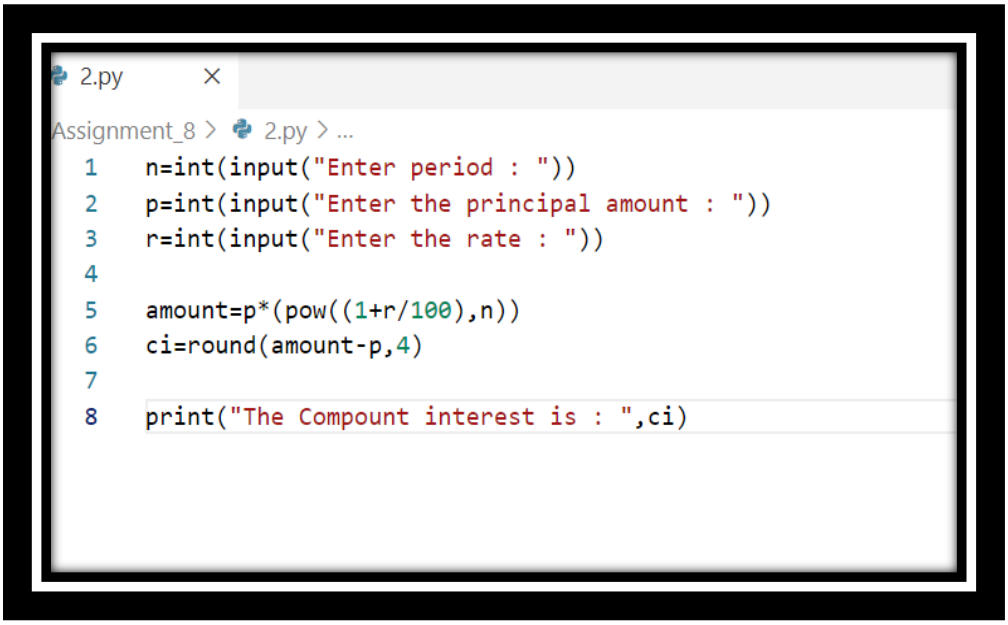
1. Write a python program to convert user entered data in Kilometers into meter, centimeter, miles and millimeters.



OUTPUT:

```
Enter the Distance in KM : 2000
The  2000  KM is equal to  2.0  Meter.
The  2000  KM is equal to  0.02  Centimeter.
The  2000  KM is equal to  1242  Miles.
The  2000  KM is equal to  0.002  Multimeter.
```

2. Write a python program to calculate compound interest annually.



OUTPUT:

```
Enter period : 2
Enter the principal amount : 200000
Enter the rate : 12
The Compount interest is :  50880.0
```

3. Insert two decimal numbers from user, perform addition, subtraction, multiplication and division. Display the result in Decimal, Binary, Octal and hexadecimal.

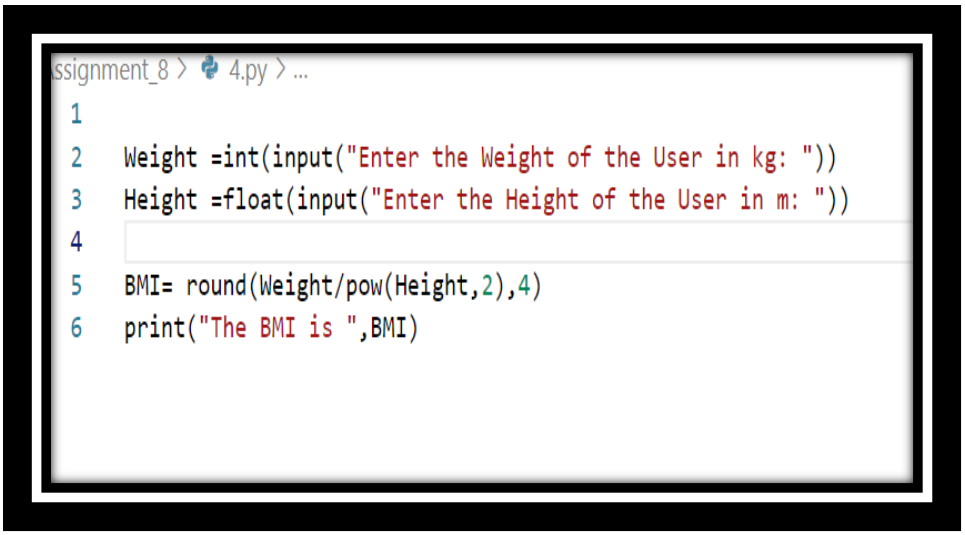
Assignment_8 > 3.py > ...

```
num1 =int (input("Enter the First Number: "))
num2 =int (input("Enter the Second Number: "))

add=num1+num2
sub=num2-num1
div=int(num2/num1)
mult=num1*num2

print("Decimal Representation of Addition: ",add)
print("Binary Representation of Addition: ",bin(add))
print("Hexadecimal Representation of Addition: ",hex(add))
print("Octal Representation of Addition: ",oct(add))

print(sub,bin(sub),hex(sub),oct(sub))
print(mult,bin(mult),hex(mult),oct(mult))
print(div,bin(div),hex(div),oct(div))
```

OUTPUT:

```
Enter the First Number: 23
Enter the Second Number: 12
Decimal Representation of Addition:  35
Binary Representation of Addition:  0b100011
Hexadecimal Representation of Addition:  0x23
Octal Representation of Addition:  0o43
```

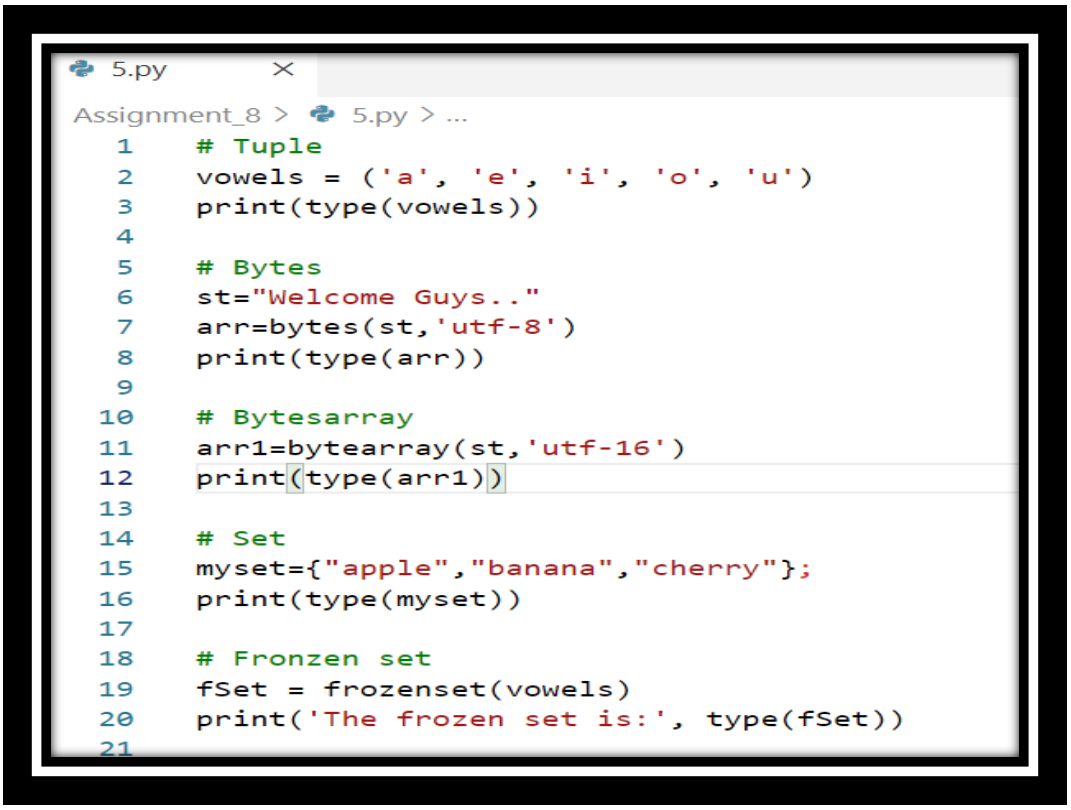
4. Insert Weight (Kg) and Height (cm) from user and calculate BMI.



OUTPUT:

```
Enter the Weight of the User in kg: 64
Enter the Height of the User in m: 1.732
The BMI is  21.3346
```

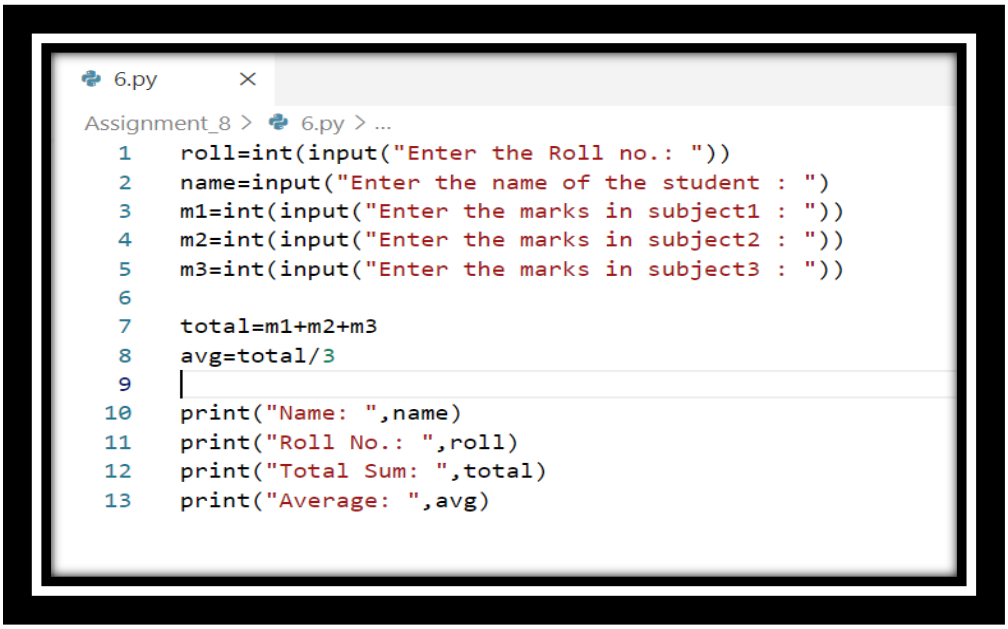
5. Write a python program to assign value to a variable of following data type also print its values along with its data type.
   a) Tuple
   b) Byte
   c) Bytearray
   d) Set
   e) Frozenset



OUTPUT:

```
('a', 'e', 'i', 'o', 'u')
<class 'tuple'>

b'Welcome Guys..'
<class 'bytes'>

bytearray(b'\xff\xfeW\x00e\x00l\x00c\x00o\x00m\x00e\x00
\x00G\x00u\x00y\x00s\x00.\x00.\x00')
<class 'bytearray'>

{'cherry', 'apple', 'banana'}
<class 'set'>

frozenset({'o', 'i', 'a', 'u', 'e'})
<class 'frozenset'>
```

6. Write a program to insert student details from user (Roll no, Name, Marks of 3 subject) and display total and average.



OUTPUT:

```
Enter the Roll no.: 05
Enter the name of the student : Sanket
Enter the marks in subject1 : 98
Enter the marks in subject2 : 97
Enter the marks in subject3 : 98
Name:  Sanket
Roll No.:  5
Total Sum:  293
Average:  97.67
```