

## ✓ Assignment Instructions

Hello Innominion,

- Try to attempt all the questions in every possible way.
- Some other topics are required to solve some questions. don't panic.
- Those questions can be answered after the topics are taught.
- Join Mentoring Session for the Support/Doubts Resolving with Our Technical Mentors (2.00 PM - 6.00 PM Mon-Sat)

Happy Learning !!!

## ✓ Basics of Python

Question: Print your name

```
print("My name is DAARA ARUNRAJ")
```

```
↩ My name is DAARA ARUNRAJ
```

```
# CODE HERE
```

```
↩ My name is Innomatics
```

Question: What is a variable? Write a Few words about Variables. Create a Variable with an Example.

```
# Variable is a container used to store the data
#rules for declaring a variable
# 1. must start with a letter or underscore
#2. Cannot start with numbers and any speccial charecters except underscore
#3.must contains alpha numeric chareters A-z and
```

```
a = 10
print(a)
```

```
↩ 10
```

```
# Code Here
```

Question: Assume that we execute the following assignment statements: width = 17 height = 12.0 delimiter = '.' For each of the following expressions, write the value of the expression and the type (of the value of the expression).

1. width/2
2. width/2.0
3. height/3
4. 1 + 2 \* 5
5. delimiter \* 5

```
width = 17
height = 12.0
delimiter = '.'
print(width/2)
print(width/2.0)
print(height/3)
print(1+2*5)
print(delimiter*5)
```

```
↩ 8.5
8.5
4.0
11
.....
```

```
# CODE HERE
```

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Question: Add two number by taking variable names as first and second

```
first_number = int(input("enter the first number is : "))
second_number = int(input("enter the second number is : "))
print("Addition of two numbers are : ",first_number + second_number)
```

```
↵ enter the first number is : 100
   enter the second number is : 200
   Addition of two numbers are : 300
```

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```
↵ first number is : 100
   second number is : 200
   Addition of two numbers are : 300
```

Question: Add your first name and second name

```
# CODE HERE
first_name = input("enter the first name is : ")
second_name = input("enter the second name is : ")
print("Addition of two names are : ",first_name + second_name)
```

```
↵ enter the first name is : DAARA
   enter the second name is : ARUNRAJ
   Addition of two names are : DAARAARUNRAJ
```

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```
↵ My first name is : Sachin
   My second name is : Tendulkar
   My full name is : Sachin Tendulkar
```

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Question: print the datatypes of the following

- 10,'10',True,10.5

```
# CODE HERE
print(type(10))
print(type('10'))
print(type(True))
print(type(10.5))
```

```
↵ <class 'int'>
   <class 'str'>
   <class 'bool'>
   <class 'float'>
```

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```
↵ 10 - <class 'int'>
   '10' - <class 'str'>
   True - <class 'bool'>
   10.5 - <class 'float'>
```

Question:

- num\_int = 123
- num\_str = "456"
- Add num\_int and num\_str
- hint: first need to convert num\_str into integer

```
# CODE HERE
num_int = 123
num_str = "456"
num_str = int(num_str)
print("Addition of {} and {} is : {}".format(num_int,num_str,num_str))
```

↻ Addition of 123 and 456 is : 456

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↻ Addition of 123 and 456 is : 579

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## ✓ Advanced Questions

Question: The volume of a sphere with radius  $r$  is  $\frac{4}{3}\pi r^3$ . What is the volume of a sphere with radius 5?

```
# CODE HERE
r = 5
print("volume of sphere is : ",(4/3)*3.14*r**3)

↻ volume of sphere is : 523.3333333333334
```

Question: Suppose the cover price of a book is Rs.24.95, but bookstores get a 40% discount. Shipping costs Rs.3 for the first copy and 75 paise for each additional copy. What is the total wholesale cost for 60 copies?

```
# CODE HERE
# Constants
cover_price = 24.95
discount_rate = 0.40
num_copies = 60
shipping_first_copy = 3.00
shipping_additional_copy = 0.75 # in Rs.

# Calculate the wholesale price after discount
discounted_price = cover_price * (1 - discount_rate)

# Calculate shipping cost
total_shipping_cost = shipping_first_copy + (num_copies - 1) * shipping_additional_copy

# Calculate total cost for all copies
total_cost = (discounted_price * num_copies) + total_shipping_cost

# Print the total wholesale cost
print("Total wholesale cost for {} copies is: Rs.{:.2f}".format(num_copies, total_cost))
```

↻ Total wholesale cost for 60 copies is: Rs.945.45

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