

Basic Programming Assignment 1

1. Write a Python program to print 'Hello Python' ?

```
In [1]: print('Hello Python')
```

Hello Python

2. Write a Python program to do arithmetic operations addition and division ?

```
In [2]: # Addition
num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))

sum_result = num1 + num2
print("The sum of", num1, "and", num2, "is:", sum_result)

# Division
num1 = float(input("Enter the numerator: "))
num2 = float(input("Enter the denominator: "))

if num2 != 0:
    division_result = num1 / num2
    print("The division of", num1, "by", num2, "is:", division_result)
else:
    print("Error: Division by zero is not allowed!")
```

Enter the first number: 10
Enter the second number: 25
The sum of 10.0 and 25.0 is: 35.0
Enter the numerator: 10
Enter the denominator: 25
The division of 10.0 by 25.0 is: 0.4

3. Write a Python program to find the area of a triangle ?

```
In [3]: base = float(input("Enter the length of the base of the triangle: "))
height = float(input("Enter the height of the triangle: "))

area = 0.5 * base * height
print("The area of the triangle is:", area)
```

Enter the length of the base of the triangle: 10
Enter the height of the triangle: 25
The area of the triangle is: 125.0

4. Write a Python program to swap two variables ?

```
In [4]: var1 = input("Enter the value of variable 1: ")
var2 = input("Enter the value of variable 2: ")

print("Before swapping:")
print("Variable 1 =", var1)
print("Variable 2 =", var2)

# Swapping variables
temp = var1
var1 = var2
var2 = temp

print("After swapping:")
print("Variable 1 =", var1)
print("Variable 2 =", var2)
```

Enter the value of variable 1: 10
Enter the value of variable 2: 25
Before swapping:
Variable 1 = 10
Variable 2 = 25
After swapping:
Variable 1 = 25
Variable 2 = 10

5. Write a Python program to generate a random number ?

```
In [7]: from random import randint
```

```
def generateRandomNumber(start=0, end=100):  
    print('Random number -> ',randint(start,end))  
  
# Generating random numbers without arguments  
generateRandomNumber()  
  
# Generating random numbers with arguments  
generateRandomNumber(0,100)
```

```
Random number -> 26  
Random number -> 79
```

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