

## Assignment -1

### Python Programming

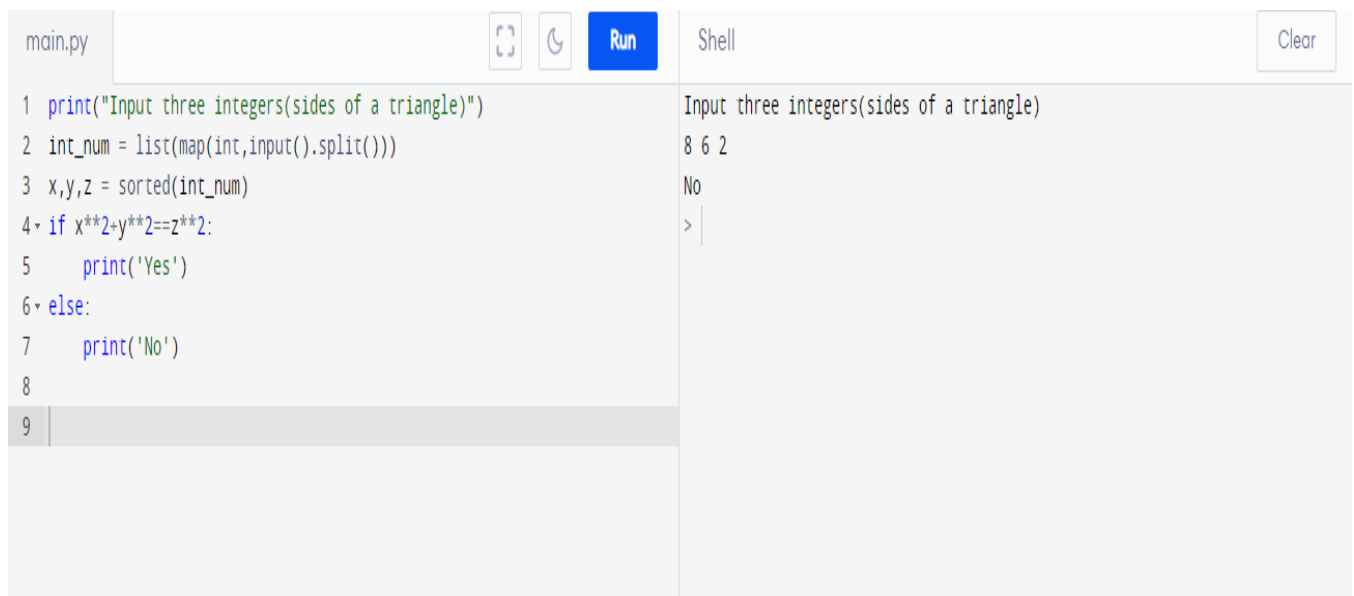
Assignment Date	19 September 2022
Team ID	PNT2022TMID44143
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Student Roll Number	724019104017
Maximum Marks	2 Marks

#### Question-1:

Write a Python program to check whether three given lengths (integers) of three sides form a right triangle. Print "Yes" if the given sides form a right triangle otherwise print "No".

#### Solution:

```
print("Input three integers(sides of a
triangle)")
int_num=list(map(int,input().split()))
x,y,z = sorted(int_num)
if x**2+y**2==z**2:
    print('Yes')
else:
    print('No')
```



The screenshot shows a Python IDE with a file named 'main.py'. The code in the editor is as follows:

```
1 print("Input three integers(sides of a triangle)")
2 int_num = list(map(int,input().split()))
3 x,y,z = sorted(int_num)
4 if x**2+y**2==z**2:
5     print('Yes')
6 else:
7     print('No')
8
9
```

Below the code editor is a 'Shell' window showing the execution output:

```
Input three integers(sides of a triangle)
8 6 2
No
>
```

The 'Run' button is highlighted in blue, and a 'Clear' button is visible in the top right corner of the shell window.

**Question-2:**

Write a Python program to compute the digit number of sum of two given integers.

**Solution:**

```
print("Input two integers(a b): ")
a,b = map(int,input().split(" "))
print("Number of digit of a and b.:")
print(len(str(a+b)))
```

main.py	Run	Shell
1 print("Input two integers(a b): ")		Input two integers(a b):
2 a,b = map(int,input().split(" "))		8 6
3 print("Number of digit of a and b.:")		Number of digit of a and b.:
4 print(len(str(a+b)))		2
5		>

**Question-3:**

Write a python program to find heights of the top three building in descending order from eight given buildings.

**Solution:**

```
print("Input the heights of eight buildings:")

l = [int(input()) for i in range(8)]

print("Heights of the top three buildings:")

l = sorted(l)

print(*l[:4:-1], sep='\n')
```

main.py	Shell
<pre> 1 print("Input the heights of eight buildings:") 2 l = [int(input()) for i in range(8)] 3 print("Heights of the top three buildings:") 4 l = sorted(l) 5 print(*l[:4:-1], sep='\n') 6 7 8 </pre>	<pre> Input the heights of eight buildings: 58 69 42 20 67 78 90 30 Heights of the top three buildings: 90 78 69 &gt; </pre>

#### Question-4:

Write a Python program to compute the digit number of sum of two given integers.

#### Solution:

```

print("Input two integers(a b): ")

a,b = map(int,input().split(" "))

print("Number of digit of a and b.:")
print(len(str(a+b)))

```

#### Question-4:

main.py	Shell
<pre> 1 print("Input two integers(a b): ") 2 a,b = map(int,input().split(" ")) 3 print("Number of digit of a and b.:") 4 print(len(str(a+b))) 5 </pre>	<pre> Input two integers(a b): 5 6 Number of digit of a and b.: 2 &gt; </pre>

#### Question-5:

Write a Python program to compute and print sum of two given integers (more than or equal to zero). If given integers or the sum have more than 80 digits, print "overflow".

```

print("Input first integer:")

```

```
x = int(input())

print("Input second integer:")

y = int(input())

if x >= 10 ** 80 or y >= 10 ** 80 or x + y >= 10 ** 80:

    print("Overflow!")

else:

    print("Sum of the two integers: ",x + y)
```

main.py	Run	Shell
1 print("Input first integer:")		Input first integer:
2 x = int(input())		5
3 print("Input second integer:")		Input second integer:
4 y = int(input())		6
5 if x >= 10 ** 80 or y >= 10 ** 80 or x + y >= 10 ** 80:		Sum of the two integers: 11
6     print("Overflow!")		>
7 else:		
8     print("Sum of the two integers: ",x + y)		
9		