Python MinMax and Calculator Applications
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Date; January 19, 2019
The first program calculates min and max values and the second program is used as a calculator

Test Case	Input	Expected Output	Actual Output	Pass?
1a	4,5,6,8,9	Minimum=4 Maximum=9	Minimum=4 Maximum=9	Yes
1b	1,13,7,13,13	Minimum=1 Maximum=13	Minimum=1 Maximum=13	Yes
1c	5,r,t,y,9	Error	Error	Yes but in future it has to be addressed
1d	-1,-2,-3,-4,-5	Minimum= -5 Maximum= -1	Minimum= -5 Maximum= -1	Yes

```
**********************************************************************
Welcome to the Python MinMax Application!
This application calculates the minimum and maximum of 5 integer values entered by

Enter your first integer:4
Enter your second integer:5
Enter your third integer:6
Enter your fouth integer:8
Enter your fifth integer:9

The minimum integer entered was  4
The maximum integer entered was  9

Thanks for trying the Python MinMax application.
**********************************************************************


Process exited with code: 0
```

Figure 1. Test Case 1a Execution results

```
**********************************************************************
Welcome to the Python MinMax Application!
This application calculates the minimum and maximum of 5 integer values e

Enter your first integer:1
Enter your second integer:13
Enter your third integer:7
Enter your fouth integer:13
Enter your fifth integer:13

The minimum integer entered was  1
The maximum integer entered was  13

Thanks for trying the Python MinMax application.
**********************************************************************


Process exited with code: 0
```

Figure 2. Test Case 1b Execution results

```
**********************************************************************
Welcome to the Python MinMax Application!
This application calculates the minimum and maximum of 5 integer values en

Enter your first integer:5
Enter your second integer:r
Enter your third integer:t
Enter your fouth integer:y
Enter your fifth integer:9
Traceback (most recent call last):
  File "/home/ec2-user/environment/Project 1/MinMax.py", line 23, in <modu
    minimum=min(int(integer1),int(integer2),int(integer3),int(integer4),in
ValueError: invalid literal for int() with base 10: 'r'


Process exited with code: 0
```

Figure 3. Test Case 1c Execution results

```
**********************************************************************
Welcome to the Python MinMax Application!
This application calculates the minimum and maximum of 5 integer values en

Enter your first integer:-1
Enter your second integer:-2
Enter your third integer:-3
Enter your fouth integer:-4
Enter your fifth integer:-5

The minimum integer entered was  -5
The maximum integer entered was  -1

Thanks for trying the Python MinMax application.
**********************************************************************


Process exited with code: 0
```

Figure 4. Test Case 1d Execution results

Test Case	Input	Expected Output	Actual Output	Pass?
2a	5 + 85	90	90	Yes
2b	7 - 13	-6	-6	Yes
2c	77 / 11	7	7	Yes
2d	- 44 / 2	-22	-22	Yes
2e	5 / 0	division by zero is not allowed	division by zero is not allowed	Yes but in future it has to be addressed
2f	123 * 5	615	615	Yes
2g	Q * W	Error	Error	Yes but in future it has to be addressed
2h	15 % 2	1	1	Yes

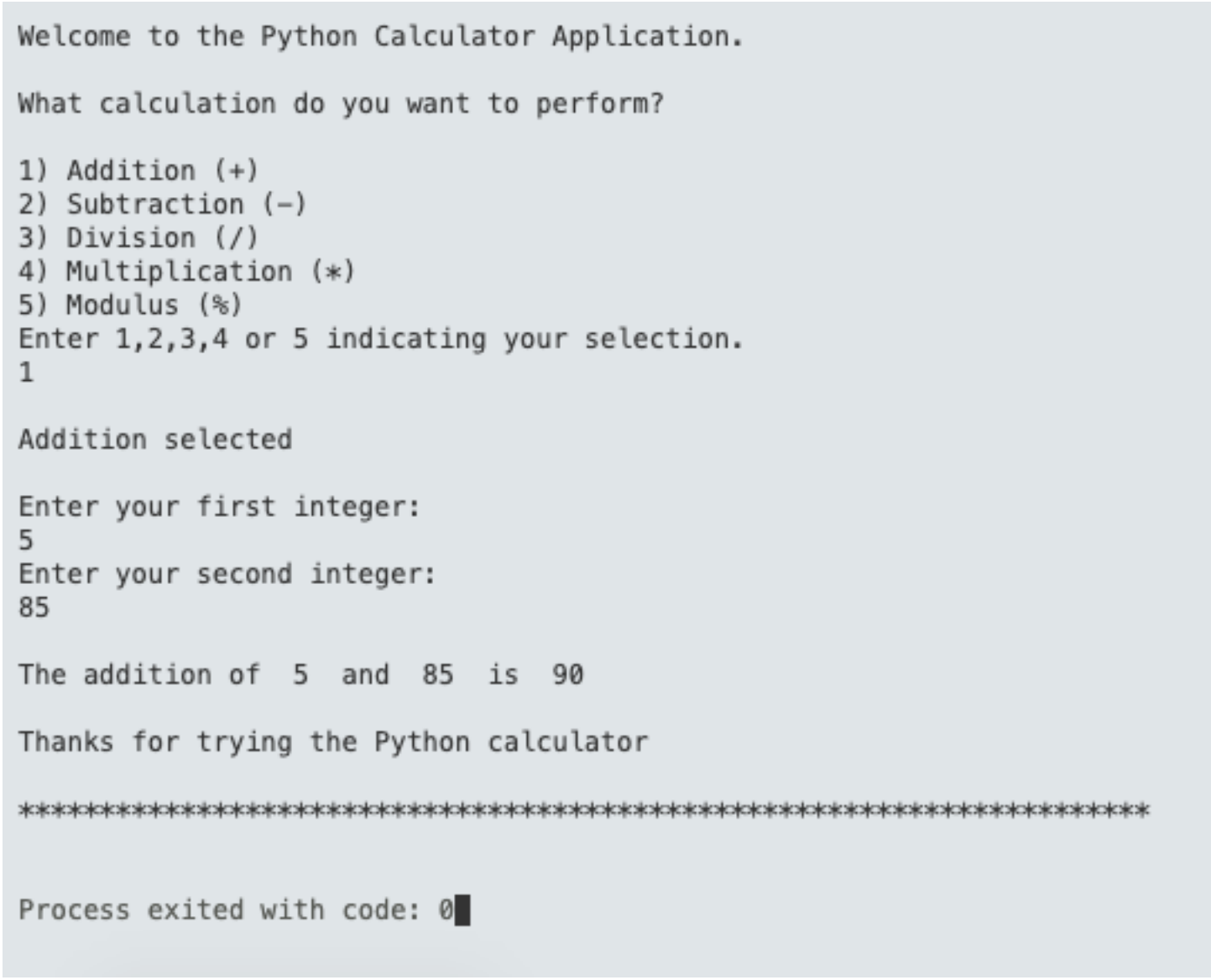

Figure 1. Test Case 2a Execution results

```
Welcome to the Python Calculator Application.

What calculation do you want to perform?

1) Addition (+)
2) Subtraction (-)
3) Division (/)
4) Multiplication (*)
5) Modulus (%)
Enter 1,2,3,4 or 5 indicating your selection.
2

Subtraction selected

Enter your first integer:
7
Enter your second integer:
13

The difference of  7  and  13  is  -6

Thanks for trying the Python calculator

**********************************************************************


Process exited with code: 0
```

Figure 2. Test Case 2b Execution results

```
What calculation do you want to perform?

1) Addition (+)
2) Subtraction (-)
3) Division (/)
4) Multiplication (*)
5) Modulus (%)
Enter 1,2,3,4 or 5 indicating your selection.
3

Division selected

Enter your first integer:
77
Enter your second integer:
11

The division of  77  over  11  is  7.0

Thanks for trying the Python calculator

**********************************************************************


Process exited with code: 0
```

Figure 3. Test Case 2c Execution results

```
What calculation do you want to perform?

1) Addition (+)
2) Subtraction (-)
3) Division (/)
4) Multiplication (*)
5) Modulus (%)
Enter 1,2,3,4 or 5 indicating your selection.
3

Division selected

Enter your first integer:
-44
Enter your second integer:
2

The division of  -44  over  2  is  -22.0

Thanks for trying the Python calculator

**********************************************************************


Process exited with code: 0
```

Figure 4. Test Case 2d Execution results

```
What calculation do you want to perform?

1) Addition (+)
2) Subtraction (-)
3) Division (/)
4) Multiplication (*)
5) Modulus (%)
Enter 1,2,3,4 or 5 indicating your selection.
3

Division selected

Enter your first integer:
5
Enter your second integer:
0

division by zero is not allowed

Thanks for trying the Python calculator

**********


Process exited with code: 0
```

Figure 5. Test Case 2e Execution results

```
What calculation do you want to perform?

1) Addition (+)
2) Subtraction (-)
3) Division (/)
4) Multiplication (*)
5) Modulus (%)
Enter 1,2,3,4 or 5 indicating your selection.
4

Multiplication selected

Enter your first integer:
123
Enter your second integer:
5

The multiplication of  123  and  5  is  615

Thanks for trying the Python calculator

**********************************************************************


Process exited with code: 0
```

Figure 6. Test Case 1f Execution results

```
Welcome to the Python Calculator Application.

What calculation do you want to perform?

1) Addition (+)
2) Subtraction (-)
3) Division (/)
4) Multiplication (*)
5) Modulus (%)
Enter 1,2,3,4 or 5 indicating your selection.
4
Enter your first integer:
Q
Enter your second integer:
W
Traceback (most recent call last):
  File "/home/ec2-user/environment/Project 1/Calculator.py", line 72, in <module>
    print("\nThe multiplication of " ,num1," and " ,num2 ," is " ,int(num1*num2),"\n")
TypeError: can't multiply sequence by non-int of type 'str'


Process exited with code: 0
```

Figure 7. Test Case 1g Execution results

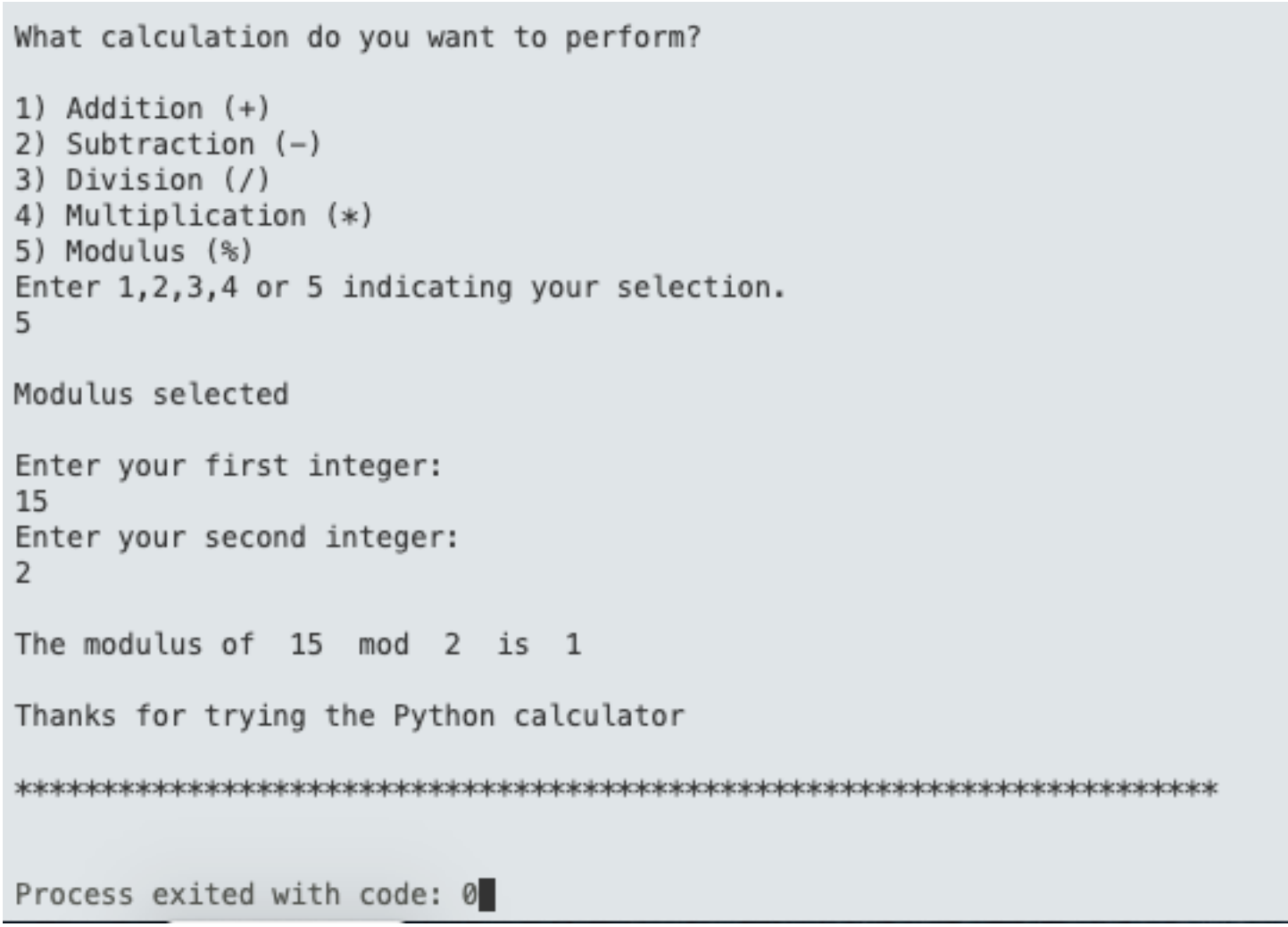

Figure 8. Test Case 1h Execution results