## **Python Scripting**

## INTRODUCTION

#This report shows how I solved each task on this room.

On the code editor, print "Hello World". What is the flag?

THM{PRINT\_STATEMENTS}

✓ Correct Answer

Hint

Exercise Complete! The flag is: THM{PRINT\_STATEMENTS}

Python code output

Hello World

In the code editor, print the result of 21 + 43. What is the flag?

THM{ADDITION}

✓ Correct Answer

♀ Hint

Exercise Complete! The flag is: THM{ADDITION}

Python code output

64

Print the result of 142 - 52. What is the flag?

THM{SUBTRCT}

✓ Correct Answer

```
2 num1 = 142
3 num2 = 52
4 res = num1 - num2
5
6 print(res)
7
8
9
10
11

Exercise Complete! The flag is: THM{SUBTRCT}

Python code output
```

Print the result of 10 \* 342. What is the flag?

THM{MULTIPLICATION\_PYTHON}

3420

✓ Correct Answer

```
1 # Write your python code here
2 num1 = 10
3 num2 = 342
4 res = num1 * num2
5
6 print(res)
7
8
9
10
11

Exercise Complete! The flag is: THM{MULTIPLICATION_PYTHON}
Python code output
```

Print the result of 5 squared. What is the flag?

```
THM{EXP0N3NT_POWER} ✓ Correct Answer ♀ Hint
```

```
1 # Write your python code here
2 num1 = 5**2
3
4 print(num1)
5
6
7
8
9
10
11

Exercise Complete! The flag is: THM{EXPON3NT_POWER}
Python code output
```

In the code editor, create a variable called height and set its initial value to 200.

No answer needed 

Correct Answer

```
1 # Write your python code here
2 height = 200
3
4
5
6
7
8
9
10
11

Exercise Complete! The flag is: THM{EXPON3NT_POWER}
Python code output
25
```

On a new line, add 50 to the height variable.

No answer needed

✓ Correct Answer

```
1 # Write your python code here
2 height = 200
3 height = height + 50
4
5 print (height)
6
7
8
9
10
11

Exercise Complete! The flag is: THM{VARIABL3S}
Python code output
250
```

On another new line, print out the value of height. What is the flag that appears?

THM{VARIABL3S} 

Correct Answer

```
# Write your python code here
     height = 200
  2
  3
     height = height + 50
  4
     print (height)
  5
  6
  7
  8
  9
 10
Exercise Complete! The flag is: THM{VARIABL3S}
Python code output
250
```

Once you've written the application in the code editor's shipping.py tab, a flag will appear, which is the answer to this question.

THM{IF\_STATEMENT\_SHOPPING}

✓ Correct Answer

9 Hint

```
cuscomer basker cost
 15
     customer basket weight = 44
 16
 17
    if customer basket cost > 100:
       print("free shipping")
 18
 19
    else
       shipping = 1.20 * customer basket weight
 20
       total = customer basket cost + shipping
 21
 22
       print(total)
 23
 24
Exercise Complete! The flag is: THM{IF_STATEMENT_SHOPPING}
Python code output
86.8
```

In shipping.py, on line 12 (when using the Code Editor's Hint), change the **customer\_basket\_cost** variable to **101** and re-run your code. You will get a flag (if the total cost is correct based on your code); the flag is the answer to this question.

THM{MY\_FIRST\_APP} 

Correct Answer

```
is customer basker weight =
 14
 15 if customer basket cost > 100:
      print(customer basket cost)
 16
 17 else:
 18
       shipping = 1.20 * customer basket weight
       total = customer basket cost + shipping
 19
       print(total)
 20
 21
 22
 23
Exercise Complete! The flag is: THM{MY_FIRST_APP}
Python code output
101
```

On the code editor, click back on the "script.py" tab and code a loop that outputs every number from 0 to 50.

THM{L00PS\_WHILE\_FOR} ✓ Correct Answer ♀ Hint

```
1 # Write your python code here
  2 for number in range(51):
       print(number)
  4
  9
 10
Exercise Complete! The flag is: THM{L00PS_WHILE_FOR}
Python code output
0
1
2
4
5
6
7
8
```

You've invested in Bitcoin and want to write a program that tells you when the value of Bitcoin falls below a particular value in dollars.

In the code editor, click on the bitcoin.py tab. Write a function called **bitcoinToUSD** with two parameters: **bitcoin\_amount**, the amount of Bitcoin you own, and **bitcoin\_value\_usd**, the value of bitcoin in USD. The function should return usd\_value, which is your bitcoin value in USD (to calculate this, in the function, you times bitcoin\_amount variable by bitcoin\_value\_usd variable and return the value). The start of the function should look like this:

```
def bitcoinToUSD(bitcoin_amount, bitcoin_value_usd):
```

Once you've written the bitcoinToUSD function, use it to calculate the value of your Bitcoin in USD, and then create an if statement to determine if the value falls below \$30,000; if it does, output a message to alert you (via a print statement).

THM{BITC0IN\_INVESTOR}

Correct Answer

O Hint

```
24
 25
    # Check if the value falls below $30,000
 26
    if usd value < 30000:
 27
         print("Alert: Your Bitcoin value is below $30,000!")
 28
    else
         print("Your Bitcoin value is above $30,000.")
 29
 30
 31
    # Print the USD value for verification
 32 print("The value of your Bitcoin in USD is:
    ${:.2f}".format(usd value))
 33
Exercise Complete! The flag is: THM{BITC0IN INVESTOR}
Python code output
Your Bitcoin value is above $30,000.
The value of your Bitcoin in USD is: $30000.00
```

1 Bitcoin is now worth \$24,000. In the code editor on line 14, update the bitcoin\_to\_usd variable value to 24000 and see if your Python program recognises that your investment is below the \$30,000 threshold.

No answer needed

✓ Correct Answer

```
Python code output

Your Bitcoin value is above $30,000.

The value of your Bitcoin in USD is: $36000.00
```

In the code editor, write Python code to read the flag.txt file. What is the flag in this file?

```
THM{F1LE_R3AD} ✓ Correct Answer
```

```
1 # Write your python code here
2
3 with open("flag.txt", "r") as file:
4
5    flag_content = file.read()
6
7 |
8 print(flag_content)
9
10
11
Python code output
THM{F1LE R3AD}
```

