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ADMISSION NUMBER: CS-EH02-24103

LINK (Completed Module):

<https://tryhackme.com/room/pythonbasics?shareId=6606f1847d6a4dfe0cae29a5>

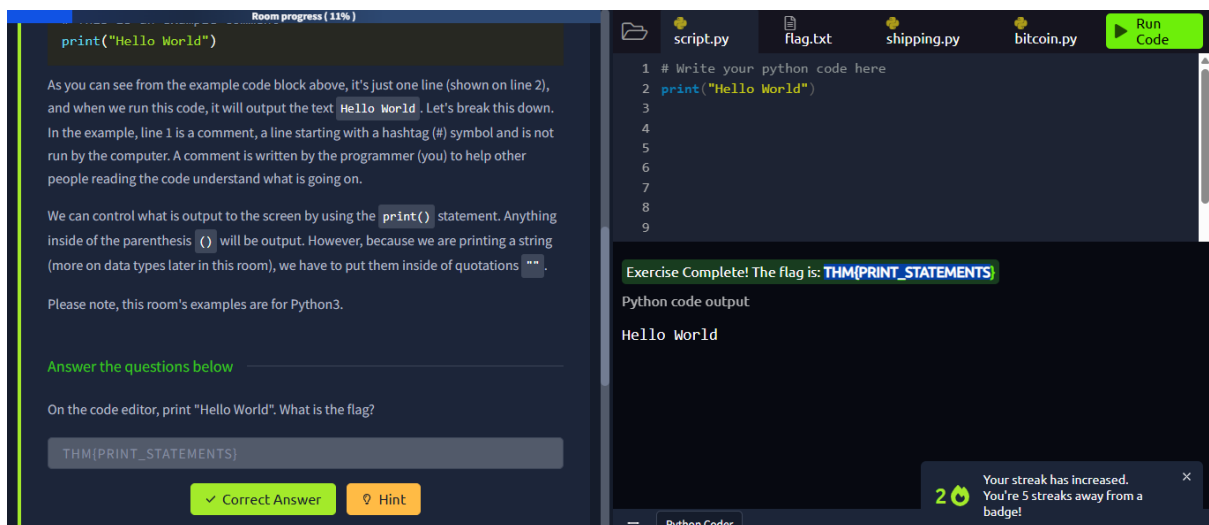
PYTHON BASICS (TRY HACK ME)

Introduction

This room covers the basics of python programming which is used to create scripts by penetration testers.

Hello World

I got to write my first line of code that prints Hello World. Answered the question that followed whose answer i got after printing the Hello world, here's a screenshot.



Mathematical Operators

I learned about the various mathematical operators from addition, subtraction, multiplication, division, modulus and finally exponent. I did the questions that followed using some of these operators and got flags as the answers. Here's the screenshots of the answers and questions

Room progress (33%)

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

THM{ADDITION}

✓ Correct Answer ? Hint

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

THM{SUBTRCT}

✓ Correct Answer

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

THM{MULTIPLICATION_PYTHON}

✓ Correct Answer

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

THM{EXPON3NT_POWER}

script.py flag.txt shipping.py bitcoin.py Run Code

```
1 # Write your python code here
2 print(21+43)
3
4
5
6
7
8
9
```

Exercise Complete! The flag is: THM{ADDITION}

Python code output

64

Python Coder

Room progress (33%)

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

THM{ADDITION}

✓ Correct Answer ? Hint

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

THM{SUBTRCT}

✓ Correct Answer

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

THM{MULTIPLICATION_PYTHON}

✓ Correct Answer

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

THM{EXPON3NT_POWER}

script.py flag.txt shipping.py bitcoin.py Run Code

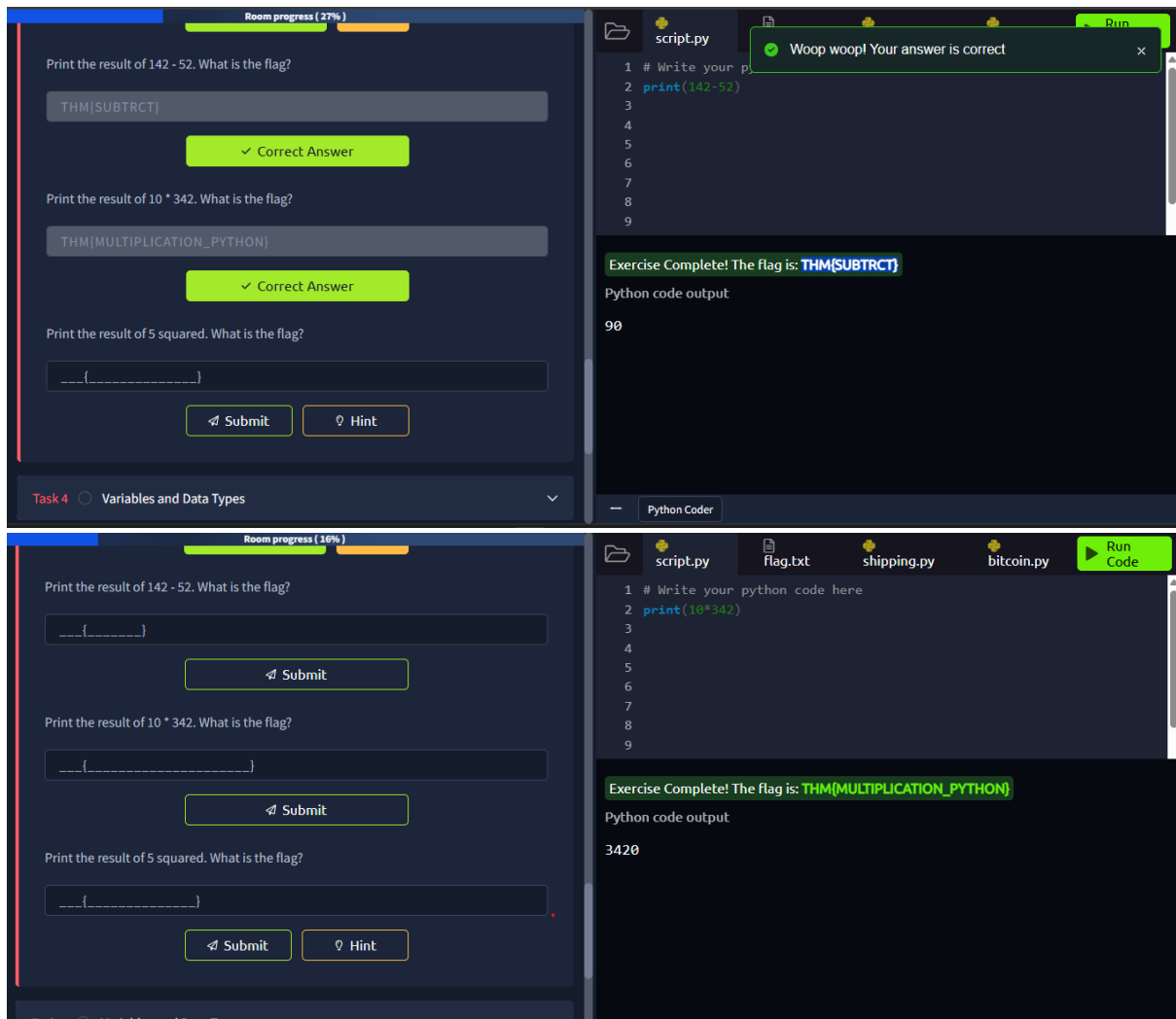
```
1 # Write your python code here
2 print(5**2)
3
4
5
6
7
8
9
```

Exercise Complete! The flag is: THM{EXPON3NT_POWER}

Python code output

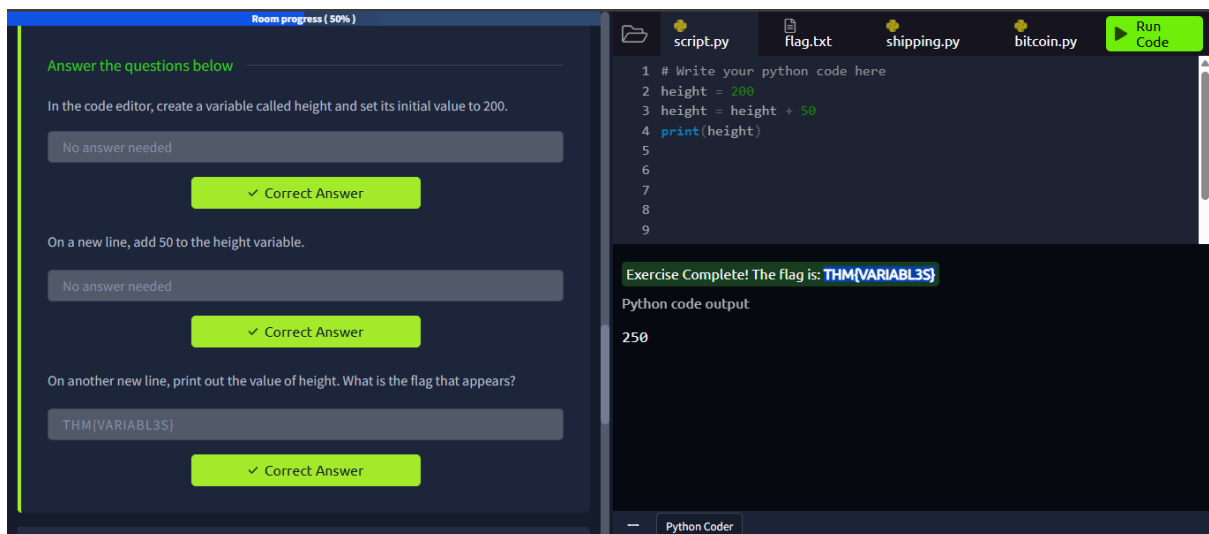
25

Python Coder



Variables and Data Types

I understood that a variable allows one to store and update data in a computer program. I got to look at various data types with their definitions which gave me a better understanding.

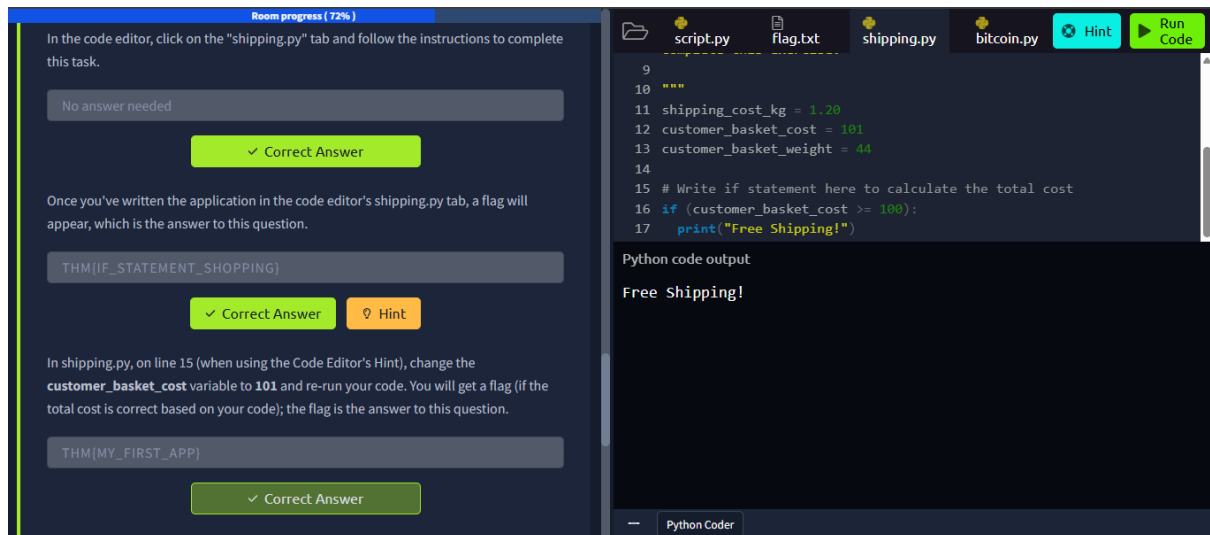


Logical and Boolean Operators

I had a look at some of the examples that were given that used logical and Boolean operators. These examples helped me understand further these operators and how they work in code.

Introduction to if statements (shipping project)

I have done the shipping project which tested my understanding on if statements. At first I tried and it had some syntax errors but after continuous trials I finally got it. Through the project I was able to answer the questions that followed.



The screenshot shows a THM room interface. On the left, there are instructions for the 'shipping' project. The code editor on the right shows the following Python code:

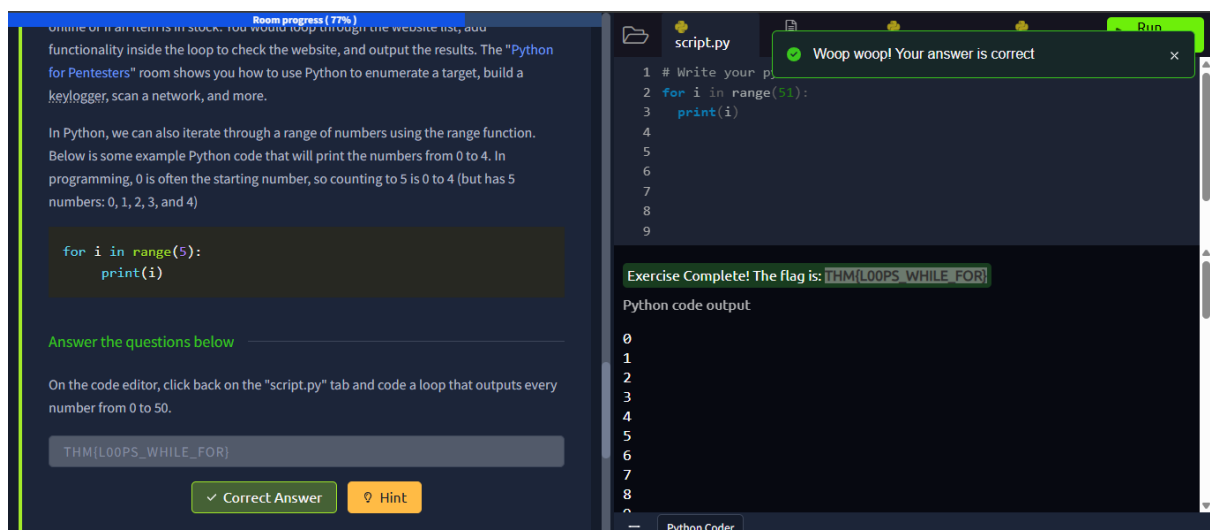
```
9
10
11 shipping_cost_kg = 1.20
12 customer_basket_cost = 101
13 customer_basket_weight = 44
14
15 # Write if statement here to calculate the total cost
16 if (customer_basket_cost >= 100):
17     print("Free Shipping!")
```

The Python code output is:

```
Free Shipping!
```

Loops

I begun by looking at while loops which repeatedly executes a block of code as long as a specified condition remains True. Through a while loop example, I was able to understand the while loop concept. I also had a look at for loop which is used to iterate over a sequence (like a list, tuple or string) or other iterable objects. There was an example that gave me an understanding of for loop syntax and how it works. I tackled the question that followed using for loop. Here's a screenshot.



The screenshot shows a THM room interface. On the left, there are instructions for the 'Loops' project. The code editor on the right shows the following Python code:

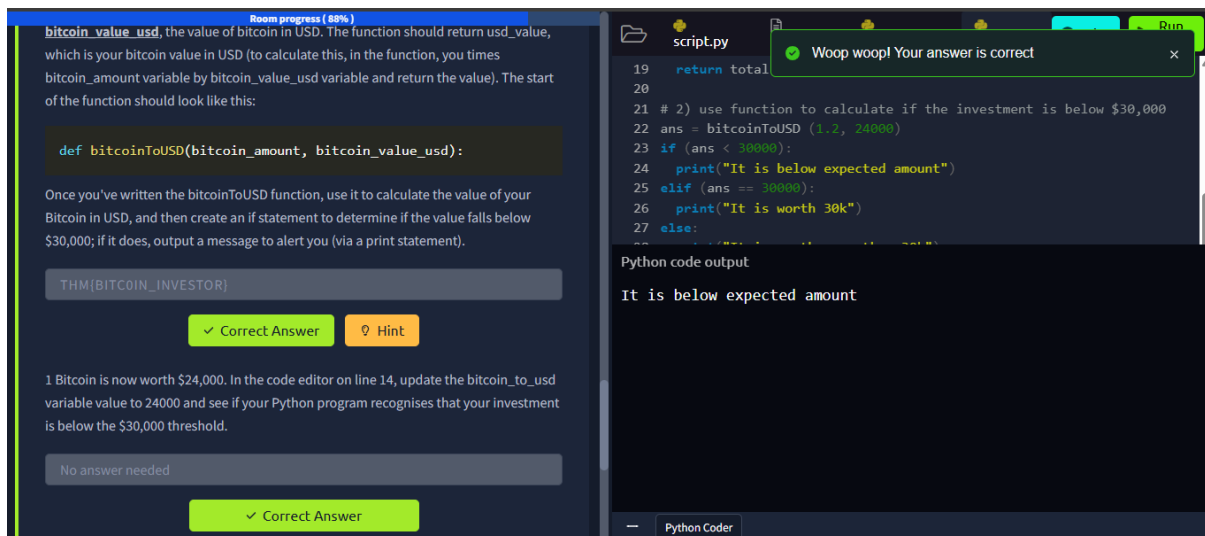
```
1 # Write your python code here
2 for i in range(51):
3     print(i)
4
5
6
7
8
9
```

The Python code output is:

```
0
1
2
3
4
5
6
7
8
9
```

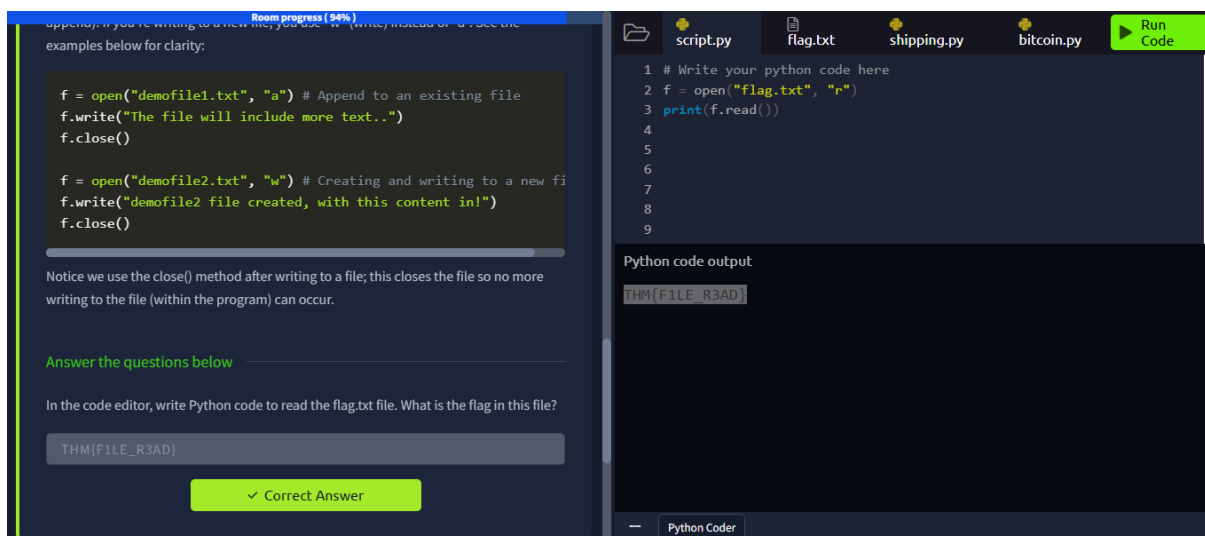
Introduction to functions (Bitcoin Project)

I had a look at functions which are used to avoid repetitive writing of code. Functions can also be called to give an out put. I tackled the bitcoin project that demonstrated the use of functions, and it also incorporated if statements which was a plus for me to understand better. Here is a screenshot of the project and the answer to the question given which is in flag format.



Files

I learned how to open files in python to read and write into existing files and new files. Answered the question given and here is the screenshot.



Imports

Here I got to understand that In Python, we can import libraries, which are a collection of files that contain functions. I also got to look at some of the popular libraries that may be found useful in scripting as a pentester:

- Request - simple HTTP library.
- [Scapy](#) - send, sniff, dissect and forge network packets

- [Pwntools](#) - a CTF & exploit development library.

Conclusion

This room gave me a foundational understanding of python programming language which is useful in scripting for penetration testers. I am looking forward to working with python in the near future as I continue advancing in cyber security.