

Python Project

A. Shipping Project

1. In this project, you'll create a program that calculates the total cost of a customers shopping basket, including shipping.

- If a customer spends over \$100, they get free shipping
- If a customer spends < \$100, the shipping cost is \$1.20 per kg of the baskets weight

Print the customers total basket cost (including shipping) to complete this exercise.

```
customer_basket_cost = 34  
customer_basket_weight = 44
```

Write if statement here to calculate the total cost

```
40  
41 customer_basket_cost = 34  
42 customer_basket_weight = 44  
43  
44 if customer_basket_cost > 100:  
45     total_cost = customer_basket_cost # Free shipping  
46 else:  
47     shipping_cost = 1.20 * customer_basket_weight  
48     total_cost = customer_basket_cost + shipping_cost  
49  
50 print(f"Total basket cost (including shipping): ${total_cost:.2f}")  
51
```

OUTPUT:

```
[Running] python -u "z:\ssh honeypots\functi.py"  
Total basket cost (including shipping): $86.80  
  
[Done] exited with code=0 in 0.102 seconds
```

B. Website Availability Checker

you could create a program that checks if a website is online or if an item is in stock. You would loop through the website list, add functionality inside the loop to check the website, and output the results.

Program:

```
import requests

websites = [
    "https://google.com",
    "https://github.com",
    "https://example.com",
    "https://nonexistent1234abc.com",
]

for site in websites:
    try:
        response = requests.get(site, timeout=5)
        if response.status_code == 200:
            print("[+] {} is online.".format(site))
        else:
            print("[-] {} returned status code {}".format(site, response.status_code))
    except requests.RequestException as e:
        print("[-] {} is offline or unreachable.".format(site))
```

Output:

```
[Running] python -u "z:\ssh honeypots\functi.py"
[+] https://google.com is online.
[+] https://github.com is online.
[+] https://example.com is online.
[-] https://nonexistent1234abc.com is offline or unreachable.

[Done] exited with code=0 in 3.647 seconds
```

Use Case in Pentesting:

In a **recon phase**, you could adapt this to:

- Check for **live subdomains**
- Filter for domains with **web applications**

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- Combine with tools like `subprocess` to call `nmap` or `ffuf`

C. BitCoin

In this project, you'll create a program that tells you when the value of your Bitcoin falls below \$30,000.

You will need to:

- Create a function to convert Bitcoin to USD
- If your Bitcoin falls below \$30,000, print a message.

You can assume that 1 Bitcoin is worth \$40,000

```
investment_in_bitcoin = 1.2  
bitcoin_to_usd = 40000
```

- 1) write a function to calculate bitcoin to usd+
`def bitcoinToUSD(bitcoin_amount, bitcoin_value_usd):`
- 2) use function to calculate if the investment is below \$30,000
- 3) use function to calculate if its below \$30,000

```
investment_in_bitcoin = 1.2  
bitcoin_to_usd = 40000  
  
# 1) Write a function to calculate bitcoin to USD  
def bitcoinToUSD(bitcoin_amount, bitcoin_value_usd):  
    return bitcoin_amount * bitcoin_value_usd  
  
# 2) Use function to calculate value  
investment_value = bitcoinToUSD(investment_in_bitcoin, bitcoin_to_usd)  
  
# 3) Check if investment is below $30,000  
if investment_value < 30000:  
    print("Warning: Your Bitcoin investment is below $30,000!")  
else:  
    print("Your Bitcoin investment is worth: ${0:.2f}".format(investment_value))
```

OutPut:

```
[Running] python -u "z:\ssh honeypots\functi.py"  
Your Bitcoin investment is worth: $48000.00  
  
[Done] exited with code=0 in 0.08 seconds
```