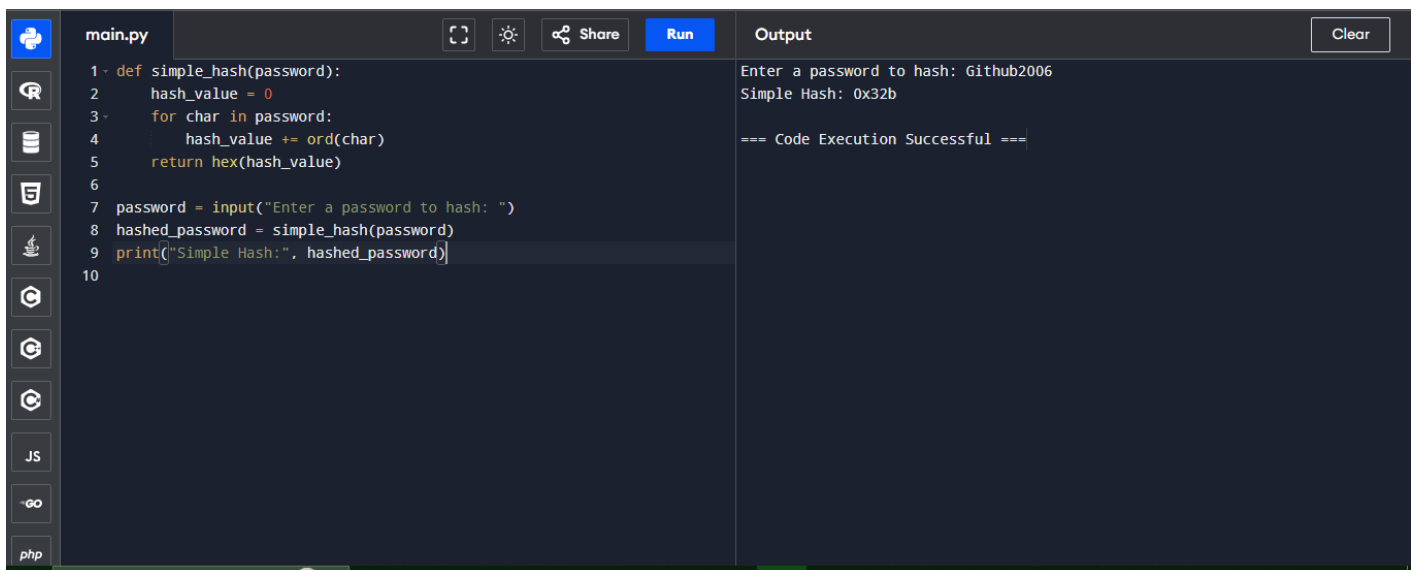


2. Coding and Debugging Questions (NOTE: Any language can be used)

Task 2 - Write a basic program for a simple function that takes a password and returns a SHA-256 hash.

```
def simple_hash(password):  
    hash_value = 0  
  
    for char in password:  
        hash_value += ord(char)  
  
    return hex(hash_value)  
  
password = input("Enter a password to hash: ")  
hashed_password = simple_hash(password)  
print("Simple Hash:", hashed_password)
```

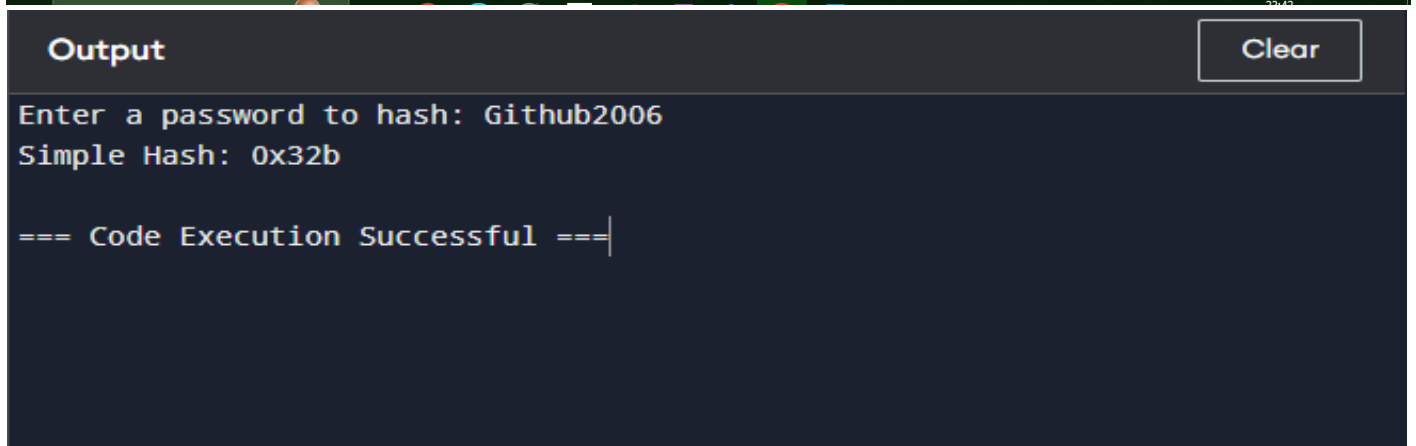


The screenshot shows a code editor with a file named 'main.py'. The code defines a function 'simple_hash' that takes a password and returns its SHA-256 hash. The function uses a loop to calculate the hash value by summing the ASCII values of the characters. The main program prompts the user to enter a password, calls the 'simple_hash' function, and prints the result. The output shows the password 'Github2006' and the hash '0x32b'. The code execution is successful.

```
1 def simple_hash(password):  
2     hash_value = 0  
3     for char in password:  
4         hash_value += ord(char)  
5     return hex(hash_value)  
6  
7 password = input("Enter a password to hash: ")  
8 hashed_password = simple_hash(password)  
9 print("Simple Hash:", hashed_password)  
10
```

Output

```
Enter a password to hash: Github2006  
Simple Hash: 0x32b  
  
=== Code Execution Successful ===
```



The screenshot shows the output window of the code editor. It displays the same output as the code editor: the password 'Github2006' is entered, the hash '0x32b' is calculated, and the code execution is successful.

Output

```
Enter a password to hash: Github2006  
Simple Hash: 0x32b  
  
=== Code Execution Successful ===
```