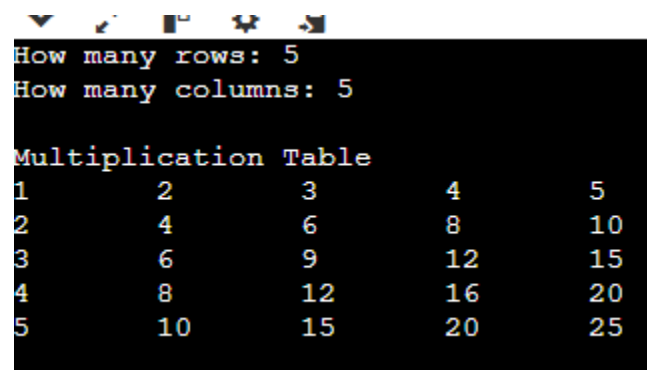*Calma, Michael Vincent L.*

C204

Problem 1: Multiplication table using nested for loops

```python
def multiplication_table(rows,cols):
    print("\nMultiplication Table")
    for i in range(1, rows +1):
        for j in range(1, cols + 1):
            print(i*j, end="\t")
        print()

rows = int(input("How many rows: "))
cols = int(input("How many columns: "))
multiplication_table(rows, cols)
```

Output:

```
How many rows: 5
How many columns: 5

Multiplication Table
1       2       3       4       5
2       4       6       8       10
3       6       9       12      15
4       8       12      16      20
5       10      15      20      25
```

Problem 2: Create a bank program

```python
def show_balance(balance):
    print("******************")
    print(f"Your balance is ${balance:.2f}")
    print("******************")

def deposit(balance):
    amount = float(input("Enter an amount to be deposited: "))
    balance += amount
    return balance

def withdraw(balance):
    amount = float(input("Enter amount to be withdrawn: "))
    if amount > balance:
        print("Insufficient funds!")
    else:
        balance -= amount
    return balance

def main():
    balance = 0.0
    while True:
        print("\nABCCDE ATM")
        print("******************")
        print("1. Show Balance")
        print("2. Deposit")
        print("3. Withdraw")
        print("4. Exit")
        print("******************")

        choice = input("Enter your choice (1-4): ")

        if choice == "1":
            show_balance(balance)
        elif choice == "2":
            balance = deposit(balance)
        elif choice == "3":
            balance = withdraw(balance)
        elif choice == "4":
            print("Thank you for using ABCCDE ATM!")
            break
        else:
            print("Invalid choice. Please select 1-4.")

if __name__ == "__main__":
    main()
```

Output:

```
ABCCDE ATM
******************
1. Show Balance
2. Deposit
3. Withdraw
4. Exit
******************
Enter your choice (1-4): 1
******************
Your balance is $0.00
******************

ABCCDE ATM
******************
1. Show Balance
2. Deposit
3. Withdraw
4. Exit
******************
Enter your choice (1-4): 2
Enter an amount to be deposited: 50

ABCCDE ATM
******************
1. Show Balance
2. Deposit
3. Withdraw
4. Exit
******************
Enter your choice (1-4): 3
Enter amount to be withdrawn: 100
Insufficient funds!

ABCCDE ATM
******************
1. Show Balance
2. Deposit
3. Withdraw
4. Exit
******************
Enter your choice (1-4): 4
Thank you for using ABCCDE ATM!


...Program finished with exit code 0
Press ENTER to exit console.
```