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BSCS C204

Problem 1:

Create an n x n Multiplication table using **Nested FOR Loop.** The user must enter the number of rows and columns that will be displayed in the Table.

Source Code:

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

print("\n         Multiplication Table      ")
for a in range(1, rows + 1):
    for b in range(1, cols + 1):
        print(a * b, end="\t")
    print()
```

Sample Output:

```
How many rows: 10
How many cols: 10

         Multiplication Table
1   2   3   4   5   6   7   8   9   10
2   4   6   8   10  12  14  16  18  20
3   6   9   12  15  18  21  24  27  30
4   8   12  16  20  24  28  32  36  40
5   10  15  20  25  30  35  40  45  50
6   12  18  24  30  36  42  48  54  60
7   14  21  28  35  42  49  56  63  70
8   16  24  32  40  48  56  64  72  80
9   18  27  36  45  54  63  72  81  90
10  20  30  40  50  60  70  80  90  100
```

```
How many rows: 4
How many cols: 5

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

Problem 2:

**Create a bank program that will allow the user to perform the ff: Use Functions as necessary**

Source Code:

```
balance = 0.00
def show_balance(balance):
    print("*************************************")
    print(f"Your balance is ${balance:.2f}")


def deposit(balance):
    amount = float(input("Enter an amount to be deposited: "))
    balance += amount
    print(f"Deposited ${amount:.2f}")
    return balance


def withdraw(balance):
    amount = float(input("Enter amount to be withdrawn: "))
    if amount <= balance:
        balance -= amount
        print(f"Withdrew ${amount:.2f}")
    else:
        print("Insufficient funds")
    return balance

def main():
    balance = 0.00
    while True:
        print("\n*************************************")
        print("              ABCCDE ATM                 ")
        print("*************************************")
        print("1. Show Balance")
        print("2. Deposit")
        print("3. Withdraw")
        print("4. Exit")
        print("*************************************")

        choice = int(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 ABCDE ATM. Goodbye!")
            break
        else:
            print("Invalid choice, please try again.")

main()
```

Sample Output: