

Midterm Lab Task 2. Using Loops and Functions

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C204

Problem 1.

Code:

```
r = int(input("How many rows:"))  
c = int(input("How many cols:"))  
print("\t\t\t\t\t Multiplication Table")  
  
for i in range(1,r +1):  
    for o in range(1, c +1):  
        print(f"{i * o:5d}", end = " ")  
    print("\n")
```

sample output1

```
C:\Users\COMLAB\PycharmProjects\pythonProject2\venv\Scripts\python.exe C:\Users\COMLAB\PycharmProjects\pythonProject2\lab2.1.py
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

Process finished with exit code 0
```

Sample output 2

```
C:\Users\COMLAB\PycharmProjects\pythonProject2\venv\Scripts\python.exe C:\Users\COMLAB\PycharmProjects\pythonProject2\lab2.1.py
How many rows:3
How many cols:5
Multiplication Table
1 2 3 4 5
2 4 6 8 10
3 6 9 12 15
Process finished with exit code 0
```

Problem 2.

Code

```
def show_balance(balance):
```

```
    print("*****")
```

```
    print(f"your balance is ${balance: .2f}")
```

```
def deposit(balance):
```

```
    print("*****")
```

```
    amount = float(input("Enter the amount you wish to deposit: "))
```

```
    balance += amount
```

```
    print("*****")
```

```
    print(f"your balance is ${balance: .2f}")
```

```
    return balance
```

```
def withdraw(balance):
```

```
    print("*****")
```

```
    amount = float(input("Enter the amount you wish to withdraw: "))
```

```
    if amount > balance:
```

```
        print("*****")
```

```
        print("Insufficient balance")
```

```
    else:
```

```
        balance -= amount
```

```
        print("*****")
```

```
        print(f"your balance is ${balance: .2f}")
```

```
    return balance
```

```
def main():
```

```
    balance = 0.0
```

```
while True:
```

```
    print("*****")
```

```
    print("  BAPBAP BANK  ")
```

```
    print("*****")
```

```
    print("1. Show Balance")
```

```
    print("2. Deposit")
```

```
    print("3. Withdraw")
```

```
    print("4. Exit")
```

```
    print("*****")
```

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

```
    if choice == 1:
```

```
        show_balance(balance)
```

```
    elif choice == 2:
```

```
        balance = deposit(balance)
```

```
    elif choice == 3:
```

```
        balance = withdraw(balance)
```

```
    elif choice == 4:
```

```
        print("*****")
```

```
        print("Thank you for using our bank")
```

```
        break
```

```
    else:
```

```
        print("*****")
```

```
        print("Invalid choice")
```

```
main()
```

sample output

Output

Clear

```
*****
```

```
    BAPBAP BANK
```

```
*****
```

```
1. Show Balance
```

```
2. Deposit
```

```
3. Withdraw
```

```
4. Exit
```

```
*****
```

```
Enter your command 1-4: |
```

```
*****
```

```
Enter your command 1-4: 2
```

```
*****
```

```
Enter the amount you wish to deposit: 1000
```

```
*****
```

```
your balance is $ 1000.00
```

```
*****
```

```
    BAPBAP BANK
```

```
*****
```

```
1. Show Balance
```

```
2. Deposit
```

```
3. Withdraw
```

```
4. Exit
```

```
*****
```

```
Enter your command 1-4: |
```

```
*****
Enter your command 1-4: 1
*****
your balance is $ 1000.00
*****
      BAPBAP BANK
*****
1. Show Balance
2. Deposit
3. Withdraw
4. Exit
*****
Enter your command 1-4: |
```

```
*****
Enter your command 1-4: 3
*****
Enter the amount you wish to withdraw: 250
*****
your balance is $ 750.00
*****
      BAPBAP BANK
*****
1. Show Balance
2. Deposit
3. Withdraw
4. Exit
*****
Enter your command 1-4: |
```

Enter your command 1-4: 1

your balance is \$ 750.00

BAPBAP BANK

1. Show Balance

2. Deposit

3. Withdraw

4. Exit

Enter your command 1-4: