10/9/20

Task: 7 Utilizing 'Functions' concepts in python programming

a) Banking Transaction system

Aim:

To develope a program that simulates a banking transaction system using functions to deposit money, withdraw money (with balance validation) and check current balance.

Algorithm:

```
1. Start the program
2. Initialize a variable balance = 0.
3. Define function deposit (amount) to add money to balance
4. Define function withdraw (amount) to subtract money from balance (if sufficient funds).
5. Define function check_balance() to display the current balance
6. In main program:
      • call deposit function
      • call withdraw function
      • call balance check function
7. Stop the program.
```

Program:

```
balance = 0
def deposit (amount):
    global balance
    balance += amount
    print (f"₹ {amount} deposited successfully")
def withdraw (amount):
    global balance
    if amount <= balance:
        balance -= amount
        print (" ₹ {amount} withdrawn successfully")
    else:
        print ("insufficient balance!")
```

output :

```
₹1000 deposited successfully
₹500 withdrawn successfully
current Balance: ₹ 500
Insufficient balance!
current Balance:₹500
```

```
def check_balance():
    global balance
    print(f"Current Balance:₹{balance}")
deposit(1000)
withdraw(500)
check_balance()
withdraw(700)
check_balance()
```

Result:

Thus, the Python program for the Banking Transaction system was successfully executed using function

6. Student Result Calculator

Aim:

To write a python program using functions to calculate the total, average and grades of a student based on marks in three subjects

Algorithm:

```
1. Start the program
2. Accept marks for 3 subjects
3. Define a function calculate_result(m1, m2, m3) to
    ◦ compute total = m1 + m2 + m3
    ◦ compute average = total / 3
    ◦ Assign grade based on average:
        • A → Avg ≥ 75
        • B → 60 ≤ Avg < 75
        • C → 50 ≤ Avg < 60
        • Fail → Avg < 50
4. Define function display (total, Avg, grade)
    to show results
5. Call the functions and display results
6. Stop the program
```

Program:

```
def calculate_results(m1, m2, m3):
    total = m1 + m2 + m3
    Avg = total / 3
    if Avg >= 75:
        grade = "A"
    elif Avg >= 60:
        grade = "B"
    elif Avg >= 50:
        grade = "C"
    else:
        grade = "Fail"
```

3. Sample output:

```
Total marks: 210
Average marks: 70.0
Grade: B
```

```
    return total, Avg, grade
def display (total, avg, grade):
    print ("Total marks:", total)
    print ("Average Marks:", avg)
    print ("Grade:", grade)

m1 = 80
m2 = 70
m3 = 60

total, avg, grade = calculate_result (m1, m2, m3)
display (total, avg, grade).
```

VEL TECH CSE	
EX NO	7
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	3
VIVA VOCE (5)	5
RECORD (5)	[illegible]
TOTAL (20)	15
WITH DATE	23/10/20

Result:

Thus, the python program for the student Result Calculator was successfully executed using functions.

22/10/25