

Q19) 51. Utilizing 'functions' Concepts in Python Programming.

(a). Banking Transaction system.

Aim:- To develop a Python program using functions that simulates basic banking transactions: deposit, withdraw, and checking the account.

Algorithm:-

1. Initialize account balance to zero.
2. Define a function to deposit money, while it increases the balance.
3. Define a function to withdraw money, checking if the balance is sufficient.
4. Define a function to display the current balance.
5. Use menu-driven options to perform deposit, withdraw, and balance check actions.

Python Program:-

```
balance = 0
```

```
def deposit (amount):
```

```
    global balance
```

```
    balance += amount
```

```
    print ("Deposited:", amount)
```

```
def withdraw (amount):
```

```
    global balance
```

```
    if amount <= balance:
```

```
        balance -= amount
```

```
        print ("Withdrawn:", amount)
```

```
    else:
```

```
        print ("Insufficient Balance")
```

```
def check - balance ():
```

```
    print ("Current 'Balance:", balance)
```

Output:-

Deposited: 500

With Drawn: 200

Current Balance: 300

Insufficient Balance.

Current Balance = 300.

Example usage:

deposit(500)

withdraw(200)

check - balance()

withdraw ~~200~~ (400)

~~check~~ - balance()

Result:-

The program performs banking transactions using functions and maintains the account balance accurately.

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b. Student Result Calculator.

Aim:-

To create a Python program using functions to accept marks of three subjects, calculate total, average, grade and display.

Algorithm:-

1. Define a function to accept marks for three subjects.
2. Define a function to calculate the total and average.
3. Define a function to determine the grade (A/B/C/fail) based on average.
4. Define a separate function to display the result.

Program:-

```
def accept_marks():
```

```
    M1 = int(input("Enter marks for subject 1:"))
```

```
    M2 = int(input("Enter marks for subject 2:"))
```

```
    M3 = int(input("Enter marks for subject 3:"))
```

```
    return M1, M2, M3
```

```
def calculate_result(M1, M2, M3):
```

```
    total = M1 + M2 + M3
```

```
    average = total / 3
```

```
    if average >= 75:
```

```
        grade = 'A'
```

```
    elif average >= 60:
```

```
        grade = 'B'
```

```
    elif average >= 40:
```

```
        grade = 'C'
```

```
    else: grade = 'fail'
```

```
    return total, average, grade.
```


Output:-

Enter marks for subject 1:80

Enter marks for subject 2:70

Enter marks for subject 3:60

Total marks:210

Average marks:70.0

Grade: B.

def display → result (total, average grade):

Print ("Total Marks:"), total)

Print ("Average Marks:", average)

Print ("Grade:", grade)

Marks = accept — marks()

total, average, grade = calculate — result (marks)

display — result (total — average, grade).

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RECORD (5)	5
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SIGN WITH DATE	

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Result:- The program user functions to process student marks and displays a result including total, average, and grade classification.

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