

# Collegiate 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 increasing 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        print("Withdrawn:", amount)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

Withdrawn: 200

Current Balance: 300

Insufficient Balance.

Current Balance = 300.

~~#Example usage:~~

```
deposit(500)  
withdraw(200)  
check - Balance()  
withdraw - balance(400)  
check - balance()
```

Result:-

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

10/11/18

## 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.
```

Program to calculate average marks  
of student, total marks, grade sent to file  
program ends

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).

```

VEL TECH - CSE	
EX NO.	7
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	15
SIGN WITH DATE	

8/7/2020  
Gangadhar

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

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