PYTHON LAB PROGRAM 1

# AIM: Introduce the Python fundamentals, data types, operators, flow control andexception handling in Python

## Write a python program to find the best of two test average marks out of three test’smarks accepted from the user.

m1 = int(input("Enter the marks in the first test: ")) m2 = int(input("Enter the marks in the second test: ")) m3 = int(input("Enter the marks in the third test: "))

if m1 > m2:

if m2 > m3:

total = m1 + m2 else:

total = m1 + m3 elif m1 > m3:

total = m1 + m2 else:

total = m2 + m3

avg = total / 2

print("The average of the best two test marks is:", avg)

Output:

CASE 1:

Enter the marks in the first test: 20 Enter the marks in second test: 15 Enter the marks in third test: 22

The average of the best two test marks is: 21.0

CASE 2:

Enter the marks in the first test: 24 Enter the marks in second test: 25 Enter the marks in third test: 23

The average of the best two test marks is: 24.5

## Develop a Python program to check whether a given number is palindrome or not and also count the number of occurrences of each digit in the input number.

try:

number = int(input("Enter the number: ")) temp = number

reverse = 0

count = 0 occurrences = {}

while number > 0: digit = number % 10

if digit in occurrences: occurrences[digit] += 1

else:

occurrences[digit] = 1

reverse = reverse \* 10 + digit number //= 10

count += 1

print("The reverse number is:", reverse) if temp == reverse:

print("The number is a palindrome")

else:

print("The number is not a palindrome")

print("Number of digits:", count) print("Digit occurrences:", occurrences)

except ValueError:

print("Invalid input. Please enter a valid integer.")

**OUTPUT:**

## Case 1:

Enter the number: 1233

The reverse number is: 3321 The number is not a palindrome Number of digits: 4

Digit occurrences: {3: 2, 2: 1, 1: 1}

## Case 2:

Enter the number: 121

The reverse number is: 121 The number is a palindrome Number of digits: 3

Digit occurrences: {1: 2, 2: 1}

## Case 3:

Enter the number: ABC

## Invalid input. Please enter a valid integer.