**Zeal College of Engineering and Research**

**Subject: DSL**

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**Group A: Practical No: 01**

**Program Statement**:

Write a Python program to store marks scored in subject “Fundamental of Data Structure” by N students in the class. Write functions to compute following: a) The average score of class

1. Highest score and lowest score of class
2. Count of students who were absent for the test
3. Display mark with highest frequency

**Code:**

#Assignment 1

def get\_marks():

n = int(input("Enter the marks of Students:"))

marks = []

absent\_count = 0

for i in range(n):

mark = int(input("Enter the mark for student {}:".format(i+1)))

if mark == -1:

absent\_count +=1

else:

marks.append(mark)

return marks, absent\_count

def average\_score(marks):

if not marks:

return 0

return sum(marks) / len(marks)

def highest\_score(marks):

if not marks:

return None

return max(marks)

def lowest\_score(marks):

if not marks:

return None

return min(marks)

def mark\_with\_highest\_frequency(marks):

if not marks:

return None

mark\_counts = {}

highest\_frequency\_mark = None

highest\_frequency = 0

for mark in marks:

if mark in mark\_counts:

mark\_counts[mark] += 1

else:

mark\_counts[mark] = 1

if mark\_counts[mark] > highest\_frequency:

highest\_frequency = mark\_counts[mark]

highest\_frequency\_mark = mark

return highest\_frequency\_mark

student\_marks , absent\_count = get\_marks()

print("Average Score: ", average\_score(student\_marks))

print("Highest Score: ", highest\_score(student\_marks))

print("Lowest Score: ", lowest\_score(student\_marks))

print("Count of Absent Students: ", absent\_count)

highest\_frequency\_mark = mark\_with\_highest\_frequency(student\_marks)

if highest\_frequency\_mark is not None:

print("Mark with Highest Frequency: ", highest\_frequency\_mark)

else:

print("No marks to calculate the highest frequency.")

**Output (Screenshot):**

