

## ASSIGNMENT DAY - 2

1) Create a program that generates 50 random integers, stores them in an array, and calculates and displays both the sum and average of even numbers only. -Ishika

2) Create a program where a **List** stores names of five students and prints all names. Additionally, a **Dictionary** should store student names (key) and their scores (value). Allow the user to add or retrieve a specific student's score. -Rajvi

3) Write a program that creates a list of integers and uses LINQ to filter out odd numbers, sort them in ascending order, and group them by even and odd numbers. - Fatema

4) Write a program that accepts a list of students with their marks in 3 subjects, calculates the total and average marks for each student, and displays: - Hitarth

- The student with the highest average.
- The list of students who scored more than 70 in all subjects..

5) Write a program that takes a sentence as input and outputs the sentence with the order of words reversed. Mokshang

*Example:*

Input: **Hello World from Students**

Output: **Students from World Hello**

6) Write a program that finds the most frequently occurring character in a string entered by the user. Ignore spaces and make it case-insensitive. - Shubh

*Example:*

Input: **programming**

Output: **Most Frequent Character: g**

7) Create a program that accepts a password and evaluates its strength based on: -Vasu

- At least 8 characters.
- Contains at least one uppercase letter, one lowercase letter, one digit, and one special character.

8) Write a program that tries to open and read from a file. Make sure to use the **finally** block to ensure that the file is always closed properly. -Meghal

9) Create a **while** loop where the program continues to prompt for user input until a valid email address is entered. Validate the input using regex (use a basic regex pattern). -Dhirav

10) Create an application that simulates a banking system. Throw and catch custom exceptions when trying to withdraw more money than available in the account balance. -Utsav

11) Write a program that compresses a string by replacing consecutive duplicate characters with their count (e.g., "aaabb" → "a3b2"). - Devansh