**Assignment 3**

**Instructions:**

1. You are strictly not allowed to use anything other than pointers and dynamic memory (regrow concept).
2. One function should perform one functionality only.
3. If plagiarism is found, zero marks will be awarded.
4. **Deadline: June 15, 2024 11:59 P.M.**

## Task 1

Write a program in C++ that reads data from a file. The size of data is unknown, so you need to use the concept of regrow to load the data. Separate even and odd numbers from data and store them in separate arrays. These arrays also be created using regrow concepts. (If memory wastage found no marks will be awarded).

**Example**

**Data.txt**  2 3 15 1 82 8 9 10 21 55 12 14 16 18

**Odd-Numbers:**  2 82 8 10 12 14 16 18

**Even-Numbers:**  3 15 1 9 21 55

## Task 2

Write a C++ function say void read() that takes **“filename”, “size”** and **“an array of integers”.** The function should be able to read data from file (using dynamic memory) and store it in array, also update the variable of size with the number of elements present in file. Assume that the data in file are the ranges to display prime numbers from 1 – range. Make another function say bool is\_prime() which takes a single integer variable as its parameter and check whether the number is prime or not, if the number is prime return true and false otherwise. Display the results on console screen from main.

Now, your task is to display all the prime numbers from 1 – range for each value in your file using the above functions.

**Input.txt**

1 2 3 4 5 6 7 8 9 10 11 12 13 14

**Expected Output:**

