Lab Task

1D-Array

Note:

- Plagiarized tasks will be awarded zero marks.
- There will be deduction for late submission.
- Use meaningful variable names instead of a, b, c, x, y, z.
- Use proper indentation.
- Your programs should satisfy all the requirements mentioned in the
- description or discussed in lab.

1. Write a program that takes 10 values from user, stores it in array and displays the no of even and odd numbers along with the number.

2. A movie review website wants to store ratings (1 to 5 stars) for a newly released movie from the first 10 viewers. Create a one-dimensional array to store the ratings from the user and calculate the average, lowest and highest ratings, and display on screen.

3. Write a program that inputs an array from the user, and display all the prime numbers in that array. Make a function to check whether a single number is prime or not.

4. A city has a set of bus stops, each identified by a unique stop number and associated with a passenger count for a given day. Create a one-dimensional array to store bus stop numbers and another array to store their respective passenger counts. Write a program that performs the following operations:
   - Search for a specific bus stop number in the array and return the index of the stop if found, or a message indicating that the stop was not found.
   - Find the bus stop with the highest passenger count and display that stop number, and its passenger count.
   - Calculate the average passenger count and display the stops with passenger counts higher than the average.