**Assignment – Visual Programming using C#**

**Topics Covered:** Control Structures (Conditionals & Loops), Arrays

**Instructions:**

* Write clean, well-commented code.
* Each exercise must be implemented as a separate program (different files or methods).
* Add meaningful input/output messages for users.

**Exercises**

**1. Even or Odd Checker**

Write a program that asks the user to enter a number and checks whether it is **even or odd** using an if-else statement.

**2. Simple Calculator**

Create a console-based calculator using switch-case that performs **addition, subtraction, multiplication, and division** based on user input.

**3. Grade Evaluator**

Take marks (0–100) from the user and print the **grade**:

* A (>= 85)
* B (70–84)
* C (55–69)
* D (40–54)
* F (< 40)

**4. Sum of Natural Numbers (Loop)**

Ask the user for a number n and calculate the **sum of numbers from 1 to n** using a for loop.

**5. Multiplication Table**

Write a program that prints the **multiplication table of any number** entered by the user (up to 10).

**6. Factorial Calculator**

Ask the user for a number and calculate its **factorial** using a while loop.

**7. Reverse a Number**

Take an integer input and **reverse the digits** (e.g., 123 → 321) using loops.

**8. Array - Find Maximum and Minimum**

Create an array of 10 integers. Fill it with values entered by the user and find the **maximum and minimum elements**.

**9. Array - Count Even and Odd Numbers**

Take 10 numbers in an array and count how many are **even** and how many are **odd**.

**10. Array - Search Element**

Create an array of integers. Ask the user to enter a number and check whether it **exists in the array** (linear search).