

Offline 1: Conditional Statement and Loop

Total Mark: 10 + 10 = 20

Problem 1: Statistical Analysis

Implement a statistical analysis tool that allows the user to enter multiple numbers and then perform various statistical operations on the data.

Operations:

1. Find Maximum and Minimum Numbers
2. Calculate the Average
3. Count Even and Odd Numbers
4. Sum of All Numbers

Detailed Instructions:

- First, allow the user to enter multiple numbers. You can ask the user how many numbers they wish to input, and then use a loop to collect those numbers.
- After collecting the numbers, display maximum number, minimum number, sum of all numbers, average, even number count and odd number count.

Example Scenario:

```
How many numbers do you want to enter? 5
Enter 5 numbers: 10 15 25 30 40
```

```
Minimum Number: 10
Maximum Number:40
Sum of all Numbers: 120
Average: 24
Even Number Count: 3
Odd Number Count: 2
```

Problem 2: Pattern Generation

Take a number and print a pattern. See the input and output pair given below:

Sample Input and Output Pair

Input	Output
4	0 10 010 1010
5	1 01 101 0101 10101
6	0 10 010 1010 01010 101010

Submission Guideline:

1. Go to a drive except C drive.
2. Create a folder according to your roll number. Ex- 2305xxx
3. Open up the folder and create two files there. Ex- 2305xxx-1.c and 2305xxx-2.c.
4. Place all the code inside the two .c files.
5. Zip the folder and submit it in the moodle.