Riphah International University, Islamabad Campus

Assignment # 1

Assignments are to be done individually. No late assignments will be accepted.
Submissions that do not comply with the specifications given in this document will not be marked and a zero grade will be assigned.
You are needed to Push the code on your git repository and share the git link on moellim and also upload screen image on Moellim.

Building Basic Flutter Application

Introduction

The **basic goal** of this assignment is to help students understand and implement **state management in Flutter** using a **StatefulWidget**.

Assignment Tasks

Task 1: Flutter State Management (Bidding Page)

Design and implement a **bidding page in Flutter**.

- The page should display the **user's current maximum bid** on a product.
- When the **"Increase Bid" button** is tapped, the bid amount should increase by **$50**.
- To achieve this, create a MaximumBid class that extends the StatefulWidget class, and a _MaximumBidState class that manages the state and handles the bid increment functionality.

Task 2: Dart Basics (Input, Loops, Conditionals & Lists)

Write a **Dart console program** that:

1. Takes input from the user for their **name** and **age**.
    - If the age is **less than 18**, print:
      `"Sorry [Name], you are not eligible to register."` and stop execution.
    - Otherwise, continue.
2. Ask the user to enter **N numbers** (the program should first ask how many numbers the user wants to enter).

3. Store all numbers in a **list** and calculate:
    - The **sum of even numbers**.
    - The **sum of odd numbers**.
    - The **largest number** entered.
    - The **smallest number** entered.
4. Print the results clearly.

Task 3: Dart Loops & Patterns

Write a program in Dart that takes an integer `n` from the user and prints the following **number pyramid pattern** using **nested loops**:

Sample Input: `n = 5`

Sample Output:

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

Honor Policy

This assignment is a learning opportunity that will be evaluated based on your ability to work through a problem in a logical manner and write a research report on your own. You may however discuss verbally or via email the assignment with your classmates or the course instructor, but you are to write the actual code for this assignment without copying or plagiarizing the work of others. You may use the Internet to do your research, but the written work should be your own. **Plagiarized code will get a zero.**