

## Session 3 Homework

### 1. Basic Calculator:

Create a Dart program that takes two numbers as input and performs addition, subtraction, multiplication, and division using variables, arithmetic operators, and functions. Also, include optional parameters for different operations (e.g., addition of multiple numbers).

### 2. Grocery List Manager:

Implement a program that uses a List to store grocery items. It should allow adding, removing, and displaying items. Use functions with return types and optional/named parameters. Make sure to handle possible null values.

### 3. To-Do List App:

Create a to-do list program using a List where each item has a description, due date, and completion status (as bool). Implement methods to add, remove, and update tasks, including the use of for-each loops.

### 4. Weather Report:

Use Map and List to create a program that stores weather data for different cities (temperature, humidity, etc.). Write a function that can retrieve and print weather details using a city name.

### 5. Class Creation and Dot Operator Usage:

Create a class with a few properties and methods. Instantiate the class and use the dot operator to access and print its properties and methods.

### 6. Working with Maps - Student Details:

- Task 1: Create a map representing a student with keys for name, age, and grade. Add, update, and remove entries from the map, printing the map after each operation.
- Task 2: Iterate over the map and print each key-value pair.

#### 7. Number Check Program:

Create a program that asks the user to input a number and checks if it's positive, negative, or zero using if-else statements.

#### 8. Range Checker Program:

Write a Dart program that checks if a number is within a specified range using logical operators and prints the result.