**Exercises L5Sod 9/10/2024**

**MOBILE APPLICATION DEVELOPMENT**

**Using dart programming language answer the following questions:**

1. Write a dart program that takes an integer input from the user and checks if it is positive, negative, or zero. Print the result.
2. Create a dart program that takes a student's score (0-100) and prints the corresponding grade:
   * A: 90-100
   * B: 80-89
   * C: 70-79
   * D: 60-69
   * F: below 60
3. Write a dart program that takes three integers as input and determines the largest among them using if-else-if statements.
4. Implement a basic calculator that performs addition, subtraction, multiplication, or division based on user input. Use a switch statement to determine the operation.
5. Create a program that takes a month number (1-12) and prints the number of days in that month. Consider leap years for February.
6. Write a program that takes the user's age and prints the age group:
   * Child: 0-12
   * Teen: 13-19
   * Adult: 20-64
   * Senior: 65 and above
7. Create a program that simulates a traffic light. Use a switch statement to print the action based on the light's color (red, yellow, green).
8. Write a program that takes an integer from the user and checks if it's even or odd. If it's even, print "Even number", and if it's odd, print "Odd number".
9. Implement a program that checks if a given year is a leap year. A year is a leap year if:
   * It is divisible by 4
   * It is not divisible by 100,unless it is also divisible by 400.
10. Create a program that takes a character input from the user and determines what a vowel user inputed.