Objective:

Study Dart basics to build trivial code snippets.

Theory:

1. Read about Dart.
2. Use https://dart.dev/guides as a documentation to get info about Dart SDK.
3. Check https://dart.dev/samples to have a brief introduction to the language.
4. Read about *asynchronous programming*.
5. Read about *null safety*.
6. Try https://dartpad.dev/

Task:

Deadline: 5 days

Requirements:

Solve the following tasks. Create a separate folder for each of them. Solution must be a console application. Try to solve as much as possible. Also, be prepared for the theory questions!

1. Create a program that asks the user to enter their name and their age. Print out a message that tells how many years they have to be 100 years old.
2. Fizzbuzz task:
    - "Inputs" are numbers from 1 to 100
    - Every number divided by 3 is Fizz
    - Every number divided by 5 is Buzz
    - Every number divided by 3 and 5 is FizzBuzz
    - Return an array of the special values above or the current index
    - Put “inputs” in code as a constant
3. Generate a random number between 1 and 100. Ask the user to guess the number, then tell them whether they guessed too low, too high, or exactly right.

4. You have an XY coordinate system with points on it. You should implement the logic for *getLongestDistanceBetweenPoints* function.
    - N points; N >= 0
    - Function returns the largest distance between all points
    - Function returns a number
5. Make a two-player Rock-Paper-Scissors game against a computer.

Answer all of these questions to be prepared:

1. What are the features of Dart? Define Dart language.
2. Differentiate between named parameters and positional parameters in Dart?
3. What is the Dart final? What's the difference between final and const keywords?
4. What are Null-aware operators? What is the difference between these operators "?? and ?."
5. What is an optional parameter in Dart? Differentiate between required and optional parameters in Dart.
6. Does Dart support overloading?
7. What problems do lambda functions solve compared to regular functions?