Objective:

Study asynchronous programming in Dart.

Theory:

1. Read about *asynchronous programming*.
2. Use https://dart.dev/guides as a documentation to get info about Dart SDK.
3. Check https://dart.dev/codelabs/async-await to have a brief introduction.
4. Read about Futures
5. Read about Async/Await
6. Read about Streams

Task:

Deadline: 5 days

Requirements:

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

1. 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
    - **Use a file system for “inputs”. Create a Future-typed function to read files.**
2. Create an application that downloads multiple images from the web and shows the completion message when they are all loaded.

Answer all of these questions to be prepared:

1. What is Asynchronous programming in Dart?
2. What is the future in Dart? Explain async/await in Dart.
3. How is whenCompleted() different from then() in Future?
4. How do you check if an async void method is completed in Dart?
5. How to declare async function as a variable in Dart?
6. How does the stream work in Dart?
7. What's the difference between async and async* in Dart?