

# Ping Pong Game

## Introduction

A classic Ping Pong game performed with the help of TypeScript and RxJS. The main goal of the game is to demonstrate Functional Reactive Programming, as well as the implementation of Observable pattern.

## How to run it?

You can easily build it by typing in the cmd:

```
npm install  
npm run build
```

Or you can start it on server:

```
npm install  
npm run serve
```

## How it works?

### Main Idea

The basic idea is that we implement MVC. This means we have a Model, View and Controller. In more details, we have a user who communicates with our View, then we have a Controller whose goal is to handle User Input, then the data has to be processed in a certain way and sent to a Model who has to save it as a state and update View.

## How it is implemented?

The application is divided into several parts.

In the first part we get our dependencies. In our case, these are HTML Elements.

The second part is the one in which we attach event listeners for the elements through which the user can enter data. In this way we can intercept them, process them and send them to the store.

The third part is that we need some state that will store the data that the user enters. For this purpose we use the RxJS library, with the help of which we can create a similarity of a store, and accordingly when the user enters something, we can easily save it in a store and send it to our View.

Accordingly, the next part is the one in which we subscribe for the store, created above, and when we have new data then we update View.

## Functional Reactive Programming

Everything described above is for the purpose of performing Functional reactive programming (FRP). This means that we don't just want working code, we want transparent , easy-to-read and easily extensible code. This allows us to easily develop our projects in the future, easily fix code problems, etc.

# The End

Thanks for reading