



CrossBoard Application

Group 24:

- Luís Reis 48318
- Rúben Louro 48926

Supervisor:

- Pedro Pereira




Motivation

- Multiplatform applications usually lead to:
 - Significant code duplication;
 - Increased development effort;
 - Higher maintenance costs.

Solution

- **Kotlin Multiplatform**, a technology that enables developers to share common code across multiple platforms while still allowing access to platform-specific functionality when needed.

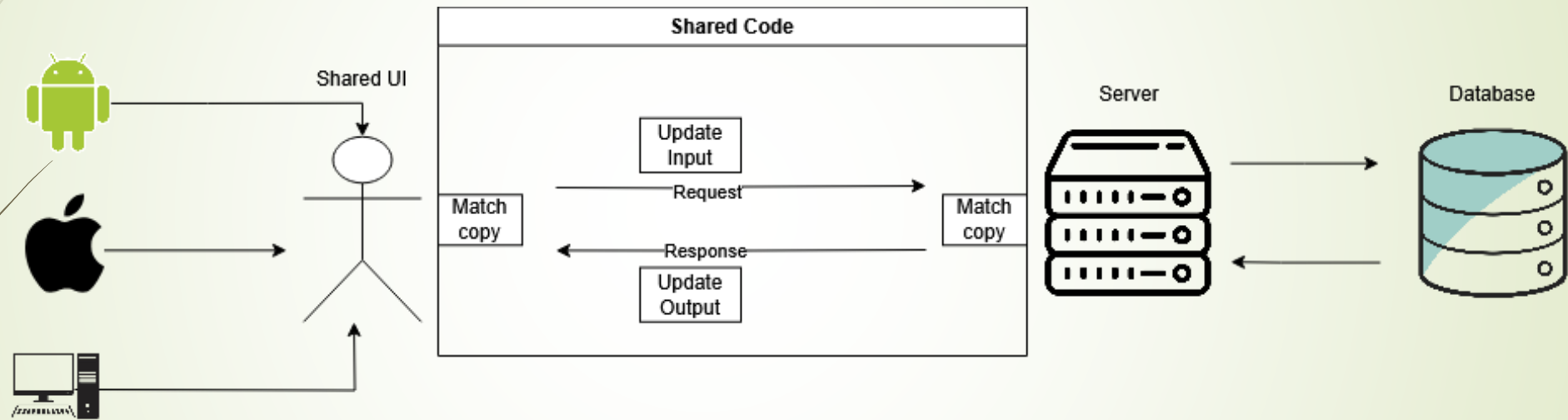


How does Kotlin Multiplatform Work?

3 main modules:

- Shared, which holds the common code between different clientes and/or server.
- Server, which keeps the server specific code.
- ComposeApp, keeps the UI elements, that will be shared accross the multiple platforms, using **Jetpack Compose**.

Architecture





Current Functionalities

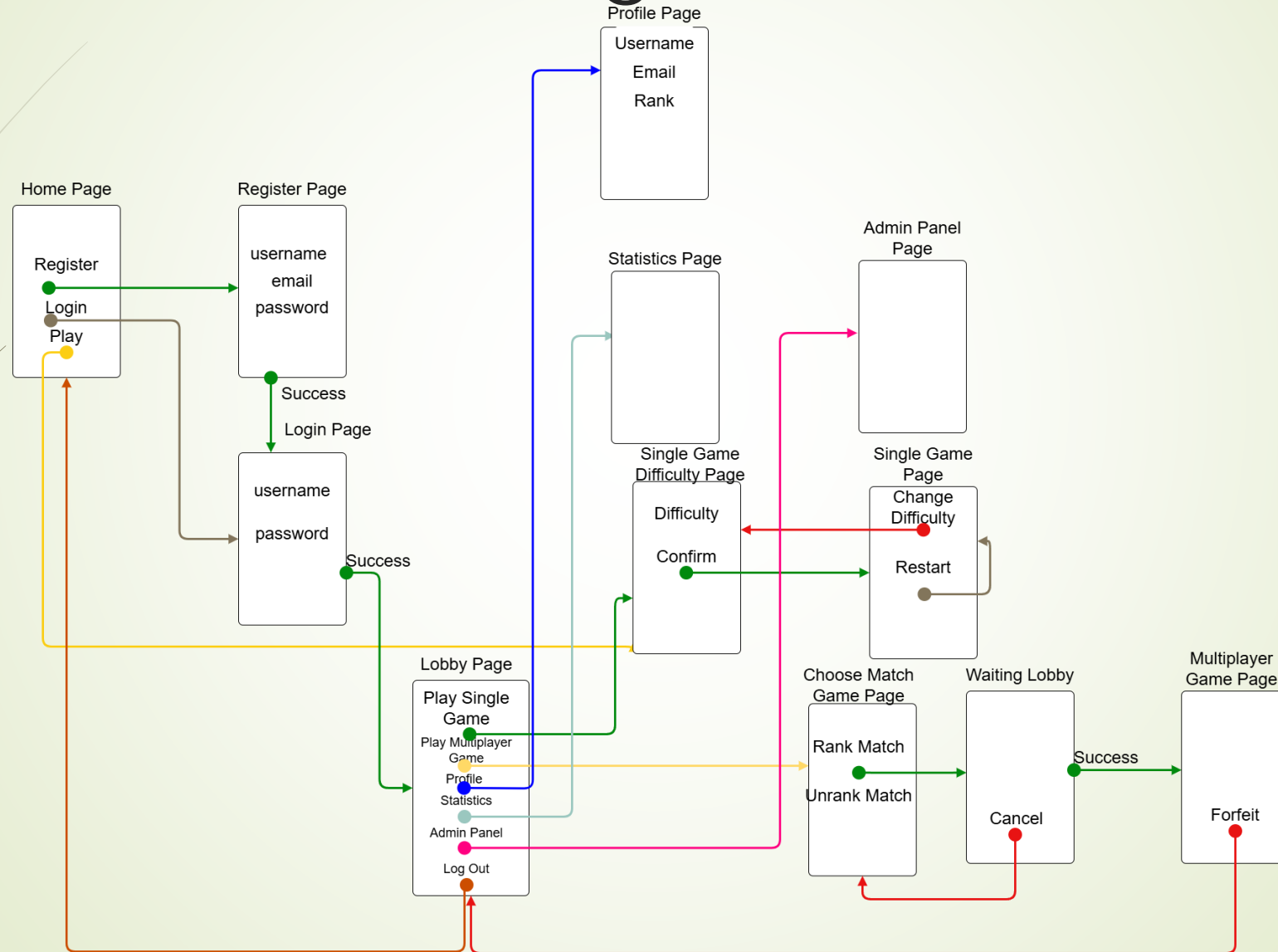
- Register/Login;
- Check profile information;
- Play against other users.

Note:

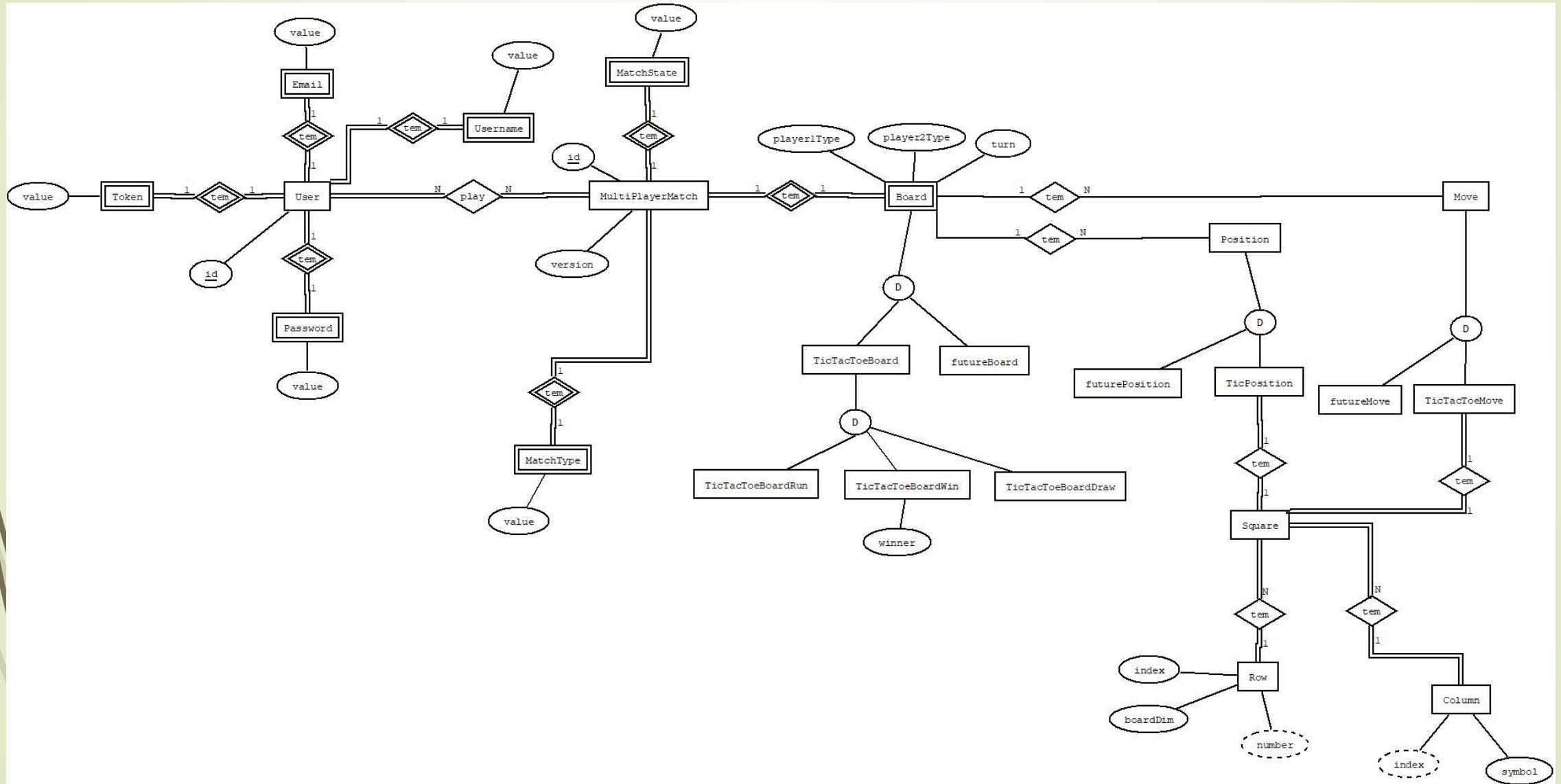
These functionalities are currently working for Android, Browser and Desktop.

iOS and macOS was not tested due to the lack of equipment.

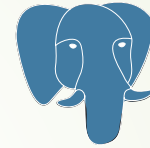
Navigation



Data Model



Technologies



PostgreSQL



docker

Demo

The image displays a web application running in a browser and an IDE. The browser window shows a 'Register' form with the following fields and values:

- Username: RubenLouro
- Email: A48926@alunos.isel.pt
- Password: (empty)

The IDE window shows the same 'Register' form. The terminal window displays the following logs:

```
Starting Gradle Daemon...
Gradle Daemon started in 1 s 174 ms
Waiting for changes to input files... (ctrl-d then enter to exit)
```

What's left?



Implement single
player
functionalities;



Allow registered
users to check
their statistics;



Implement
administration
system;



Overall
performance
optimizat



Support more
games.