

UNIVERSITY OF ST ANDREWS

CS4103 COURSEWORK 1

Middleware

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February 17, 2019



Goal

The goal of this practical was to implement a distributed application using communication middleware to collect data on user responses to the n-person prisoner's dilemma.

Part I

Communication Set-Up

The application was set up using Spring Initializr [1], which provided a Spring Boot application template, with the web and test starter dependencies. A controller class to provide REST request mappings was implemented, and the test connection method was created in the ProsecutorService class. Unit tests were written for both, and Postman was used to test the request when the application server was running, and to fulfill the criteria for part one.

Part II

Single Client Game

To provide a more user-friendly client, create-react-app [2] was used to bootstrap a react.js application. By using a proxy setting, CORS issues were avoided while developing locally. A simple test button was supplied that would perform an asynchronous call to the API test endpoint, and then print the response to the screen (Figures 1 and 2).

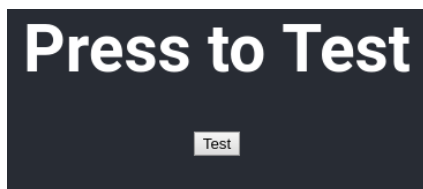


Figure 1: Before Press

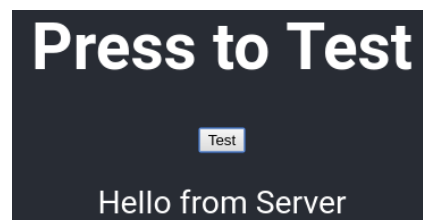


Figure 2: After Press

Conclusion

- [1] Pivotal Web Services. Spring initializr.
- [2] Facebook. create-react-app.