

Celia Marino (ID: 772 009 0618) Email: celiamar@usc.edu

Sophia Bogert (ID: 626 358 6995) Email: sbogert@usc.edu

Yuxuan Guo (ID:732 108 8855) Email: yguo3044@usc.edu

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## **USCDoorDrink**

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## **1. Preface**

This design document intends to lay out the specifications for the architectural design of the USCDoorDrink app. Its contents break down the high-level architectural design and implementable detailed design. These specifications are for Mr. Zuchen Huang and the team of developers who are working with Mr. Zuchen Huang to create this app.

## **2. Introduction**

This document will summarize the changes made on the architecture and detailed design of the project since the last deliverable. No big changes were made to the architecture of the application. However, the backend detailed design was slightly modified, implementing TCP sockets to immediately deliver changes to a given device, such as the seller receiving new orders from the drinker. Additionally, instead of using HTTP request handlers to receive requests from the frontend, the JDBC API was used to connect and execute queries on the database. Overall, there have been no major requirement changes necessary.

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### **3. Individual Assignment Completion**

Instead of breaking the application into 3 subcategories and working on specific requirements individually and separately, our team decided to break down the app into frontend and backend. Yuxuan Guo implemented the entirety of the backend. Celia Marino and Sophia Bogert were tasked with the frontend. Sophia successfully implemented the Maps page and configured the google maps API. Celia implemented the Splash Page, Login, Signup, and Update Menu. The front end fell short completing some of the major requirements such as the Order drink functionality, View store information, and list previous orders. These requirements are intended to be completed during the next sprint before testing.

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#### **4. Architectural Design Changes**

##### Overall Design

The project continues to use the Client-Server architecture style, which has no change from the previous deliverable.

##### Server Side

On the server side, this project is using a Layered architecture which splits the server into Controller, Service, and Mappers. This has no change from the previous deliverable.

##### Client Side

On the client side, this project is using a Layered architecture which varies depending on the type of client accessing the app. A Splash page was implemented in order to separate User and Seller login and Sign up. Instead of having a general login and signup for all clients as previously planned, clients are given the option to login/signup as a user or as a seller. This allowed us to tailor functionality depending on client type as well as gather the correct information during signup. Sellers are brought to the Map page where they can view locations of other stores. Their bottom navigation bar allows sellers to go to the edit menu page, previous orders page, and return back to the maps page. When a user logs into the app they are also taken to the maps page with additional functionality of being able to click on stores, view menu, order page, and order confirmation page (after placing an order). Their bottom navigation bar allows sellers to go to, previous orders page, and return back to the maps page. Each component is a page that the user will interact with. The project chose the Layered architecture for the client because of the vastly different functionalities that will be assigned to each page. As mentioned prior some of this functionality is yet to be implemented.

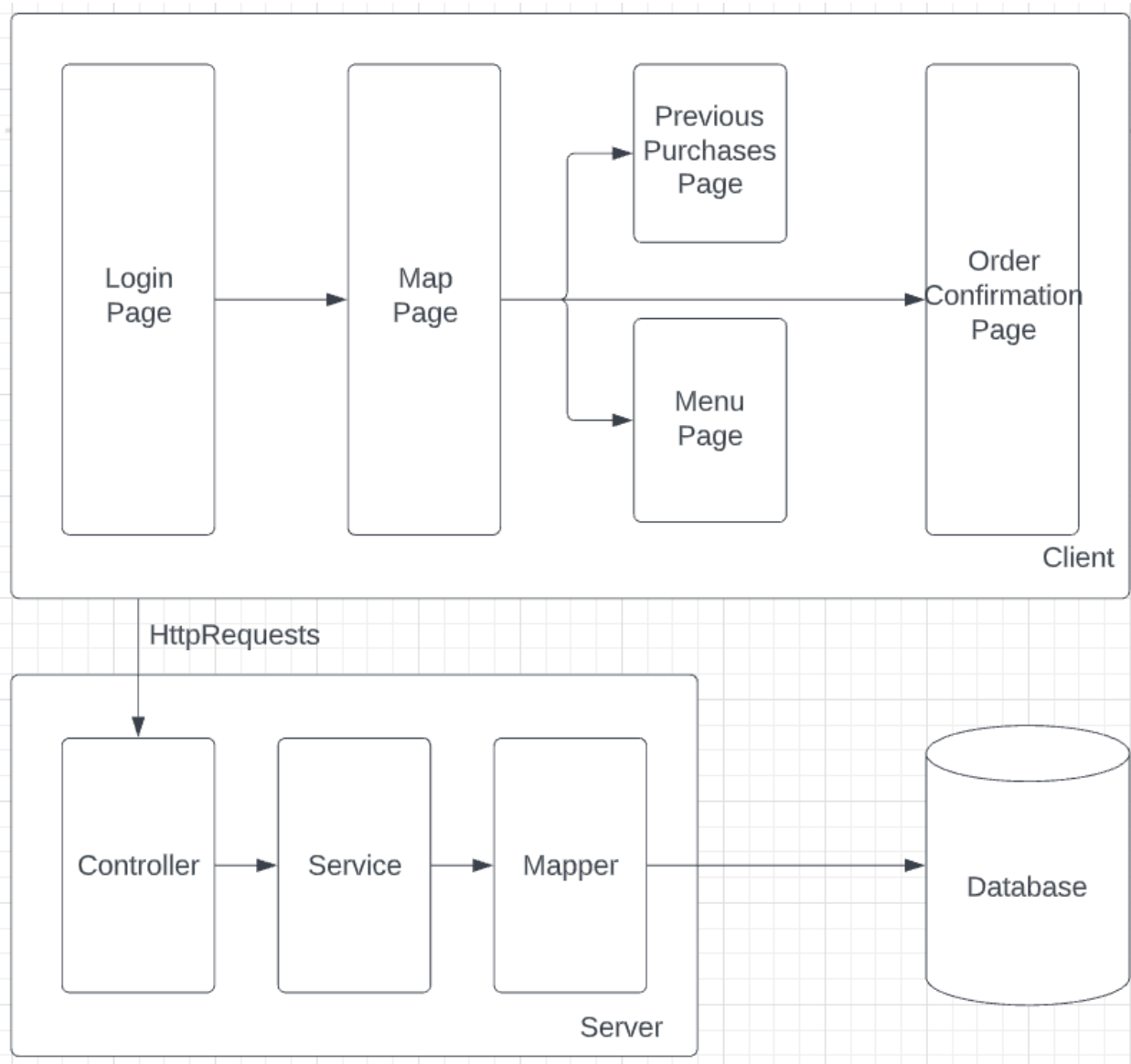
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Below is a basic outline of the architectural design, more detailed specifications are outlined later in the document:



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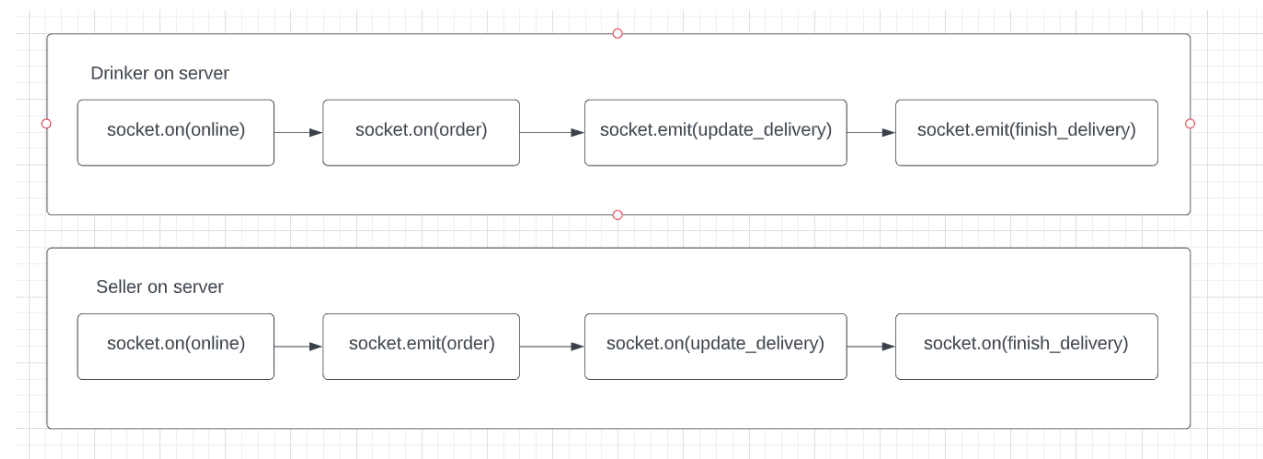
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#### 4. Detailed Design Changes

Changes Made on Backend:

Backend now use both TCP socket and HTTP request to communicate with the frontend

The TCP socket on server has listened and acted on such events



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## **5. Requirements Change**

There were no major requirements changes necessary.