Ubiquitous Cooking

Guadalupe Torres, Manuel Serna-Aguilera, Daniel Perez, Alejandro Urquieta, Jean Pierre Roca, Jack Scholes

University of Arkansas, College of Engineering: Computer Science and Computer Engineering

Introduction

Cooking can be a time consuming process, especially the case when we are cooking a new recipe for the first time. We will often turn our attention, and spend precious time, going over recipe instructions. The time spent making a recipe is often a factor in whether we decide to make it, delicious as it might be.

To address this concern for saving time, we introduce Easy Cook. Easy Cook is a Phone and Smartwatch app that helps people cook new recipes they are unfamiliar with.

Purpose

The purpose of this project is to provide an easy-to-use smart watch application for people to save time cooking. With this app, they can learn new recipes and mitigate the learning curve that comes with new recipes.

Method

The app is coded in Kotlin and Java utilizing the Android Software Development kit to create a smartphone and smartwatch app. The phone is responsible for the heavy lifting (creating, reading, updating, and deleting recipes), while the watch simply queries the phone for it's recipes and steps associated with it.

The phone application uses an SQLite database, an SQL implementation that queries against local files on the device, perfect for a resource-constrained environment like a phone and watch.

The watch requests recipe data from the phone, displaying a list of available recipes and allowing the user to click whichever one they want. Upon click, the watch will serve up the steps so the user can begin viewing the recipes.

Results

One user was able to make the recipe after only using the watch app twice before he could remember the recipe. He also rated his experience with the app an 8/10, citing the simplicity of using the watch app but criticising the phone app's user interface.

Conclusion

Overall, the main goals of this project were met despite unfavorable circumstances. This app allowed users to have an easier time cooking by providing them with a recipe in a simple watch interface. The app is able to communicate with a smartphone for even more interaction. Future work on this app will be to add timers into the app and sample recipes that users can download via the web server.