SP-5 Grocery List App

Design-Type Document

CS 4850

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Professor Perry

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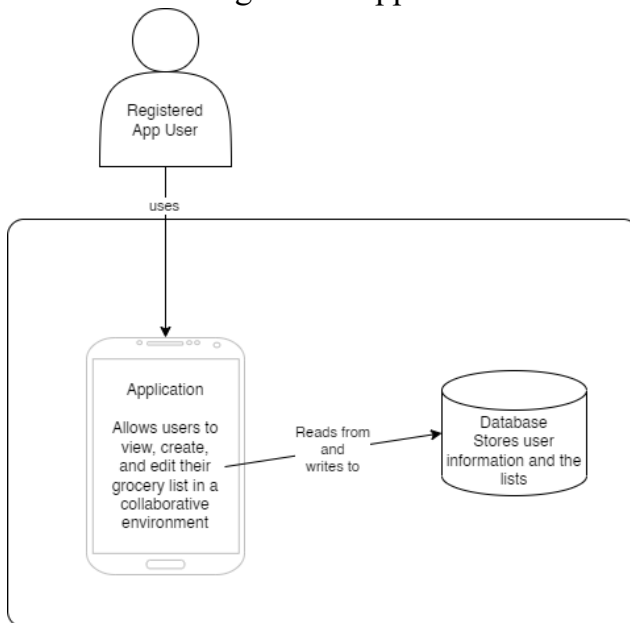
Team SP-5 Silver

Contents

1. Introduction

1.1 Context

This document contains various diagrams and interfaces of a mobile application that allows users to create and edit a grocery list collaboratively.

2. Software Architecture

2.1 Container Diagram of Application

The diagram on the left is a container diagram of the application that provides a high-level view of the application. It depicts the user of this application, one container (the mobile application), and the database. The user shown in the diagram has to be registered, the application provides all the functionality the user needs, and the application then reads and writes from/to the database whenever a new item is added unto the list or whenever a new user creates an account within the app.

2.2 Entity-Relation Diagram of Application's Database
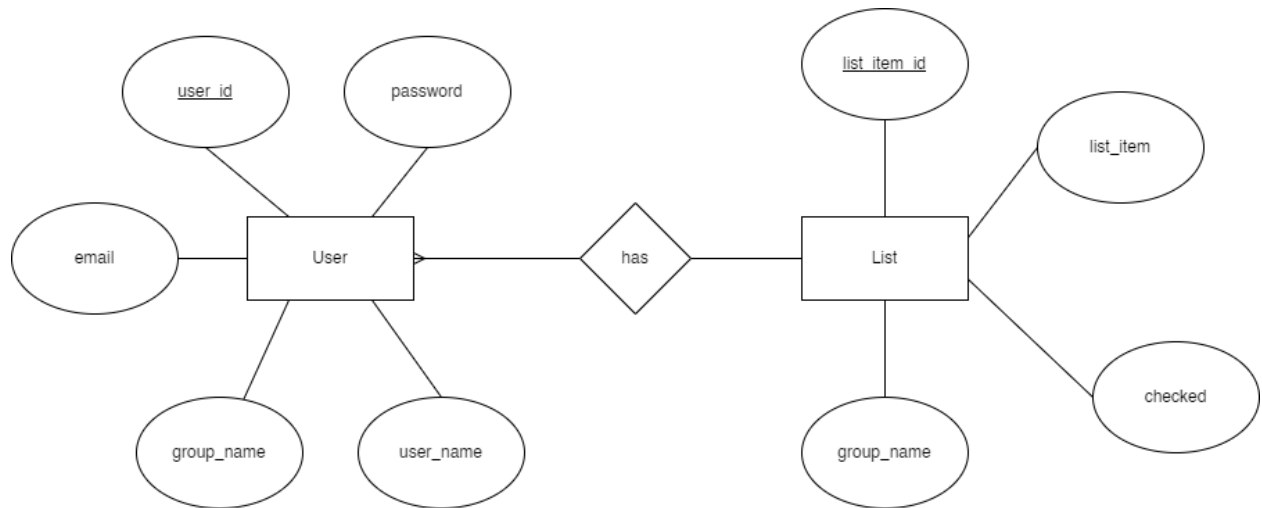
The diagram above is an entity-relationship, ER, diagram of the application's database. It consists of only two entities, user and list. As seen in the app, many users can have one list (due to the group functionality of the app), and each user has five different attributes: user_id, password, email, group_name, user_name. The list entity on the other hand has only four attributes, sharing one of them (group_name) with the user entity. The four attributes of the list entity are list_item_id, list_item, checked, and group)name.

3. Detailed Design

3.1 Application Flow Design
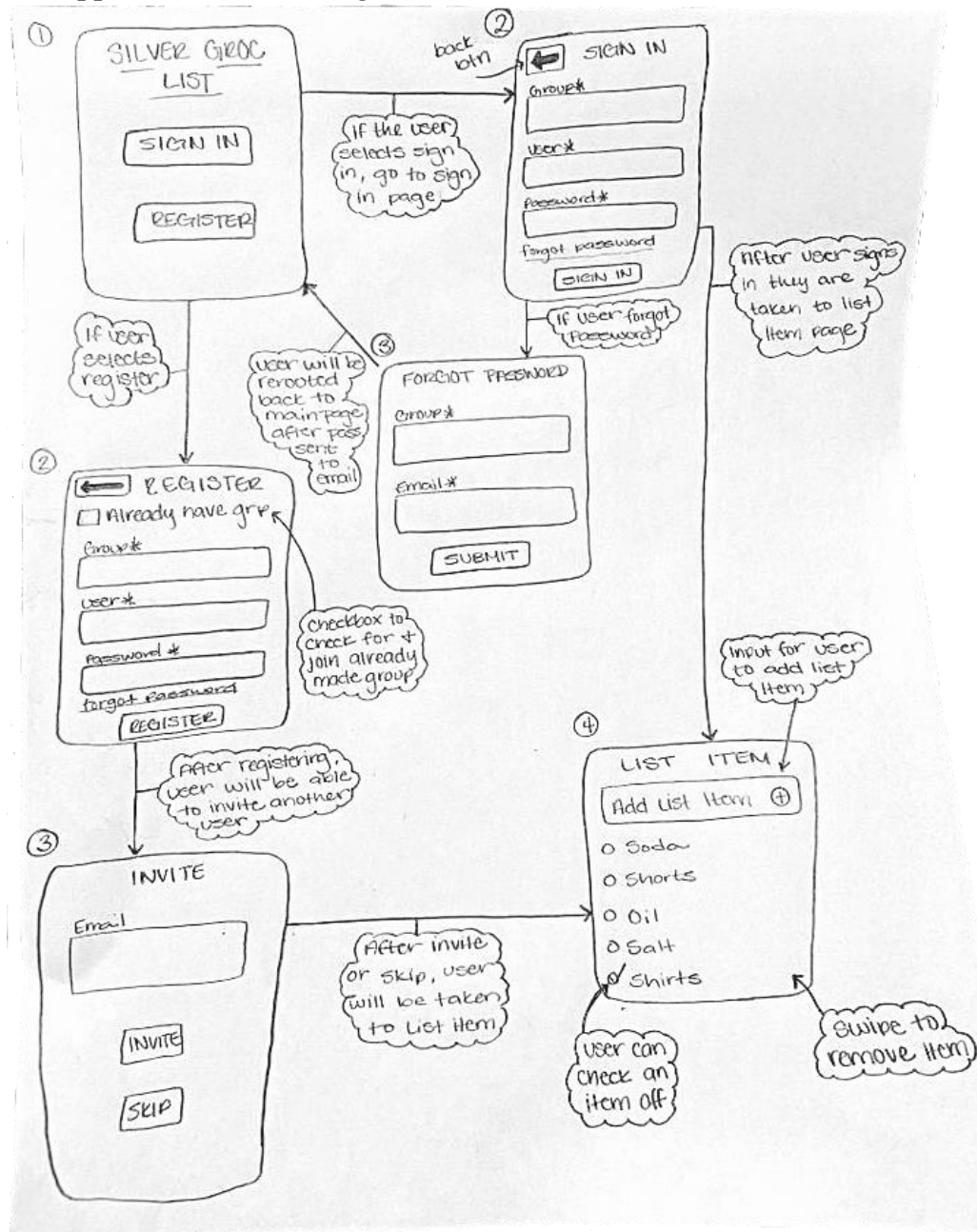
The photo attached above depicts the user flow of the application. The application starts off by showing a sign in/register screen. If the user chooses to sign in, they are led to the sign in page, where their credentials are asked for. If the user taps on "register," then they are lead to a different screen to register for an account. After registering for an account, they are asked whether they have members they want to add to the list. Regardless if the user chooses to sign in/register, they are lead to the list screen (screen #4), where they can view and edit their list.

3.2 User Interface Design 1
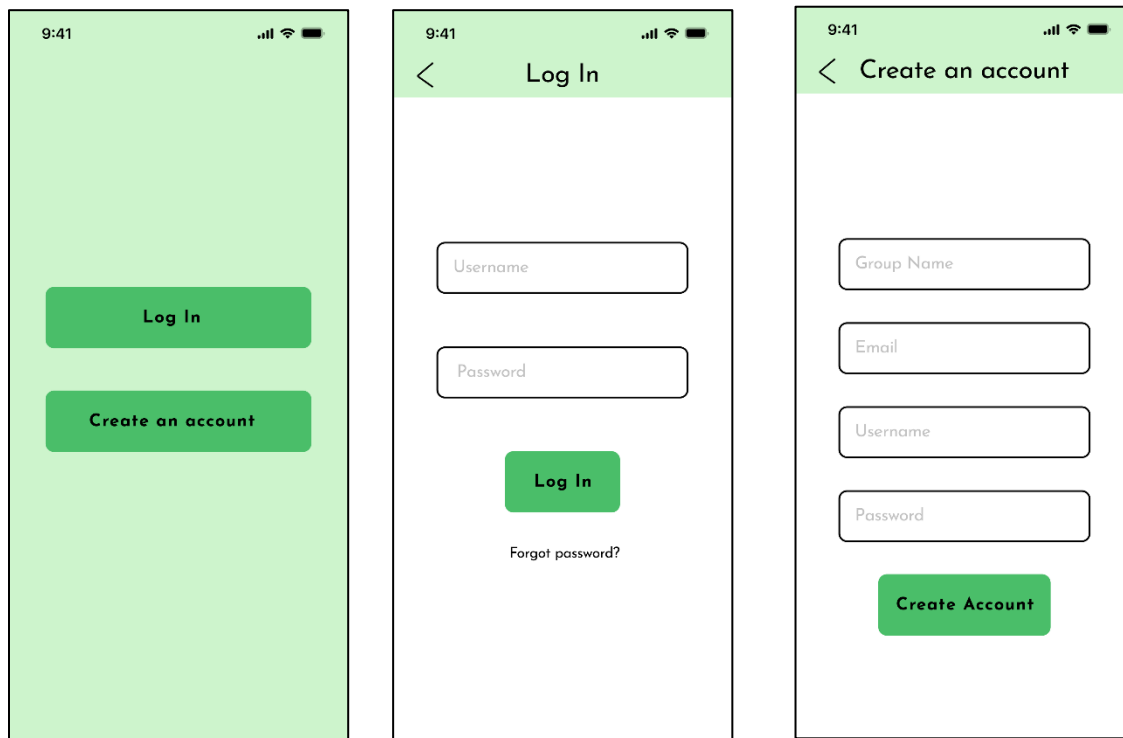
The pictures above depict a potential design for the application. This design uses green as the main color and features large textboxes and buttons for ease of use. The first screen depicted above is what the user will see immediately after opening the app. The second screen is what the user will view upon tapping "log in," and the third screen is what the user will view if they tap "create an account." Users can enter their username and password to log in, but if they have forgotten either or, they can also choose "Forgot password?" to lead to a recovery screen. In the "Create Account" screen, users will be asked a "Group Name," an "Email", a "Username", and a "Password".