Recipr

ANDROID DEVELOPER NANODEGREE - UDACITY

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Table of Contents

Description

Recipr is an application which enables users to manage their personal recipes. They can add new recipes by entering the required ingredients and the steps to perform. Additionally, they have to provide a name and a category which allows for better organization and search ability. Optionally the user can add an image of his cooking performance to help him to decide what to eat next in the future.

When opened, Recipr presents the user a list of his favorite recipes alphabetically sorted. A swipe to the left reveals all recipes ordered into categories. With this approach the user can fast skim through the available categories to select the flavor for his upcoming meal. He is then presented with a sorted list of all available recipes of this category.

The detail view of one recipe is powered by a full-fledged image (if present) that helps the imagination. Also the user can see his rating of his previous cooking adventures with this recipe for better reference.

If the user wants to he can login in with his Google Account. This enables Recipr to send the recipes to a server to sync them across all devices of the user. Therefore, the user is prompted to login at the first app start. If not wished the user can always skip the sign in process to use Recipr only locally. Sync can be enabled at any later time.

Intended User

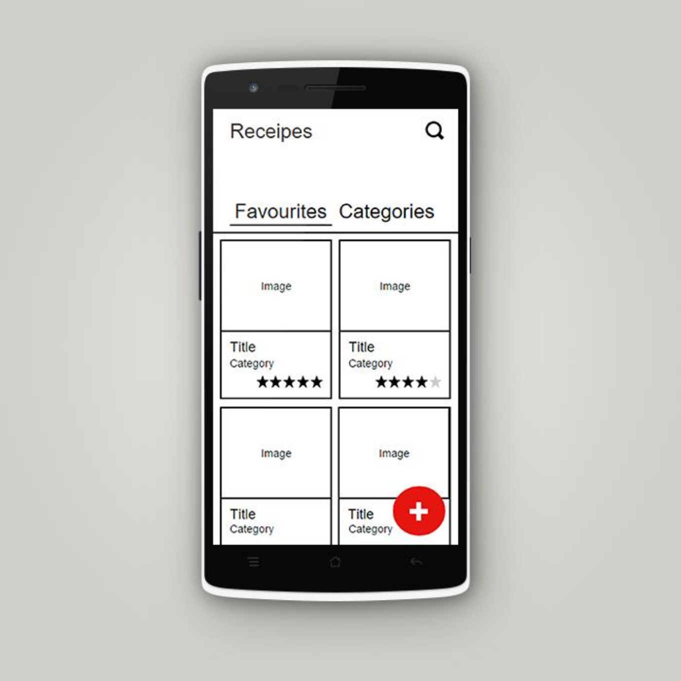
A typical user of Recipr is a person that is responsible for making food or simply enjoys cooking. The user might have some recipe books at home but wishes to use a unified interface where he can find and add all his recipes.

Features

- Displaying of recipes
- Adding of new recipes
- Ordering recipes inside categories
- Favor certain recipes
- Rate recipes
- Sync recipes with a API
- Search for recipe by name
- Deleting of recipes

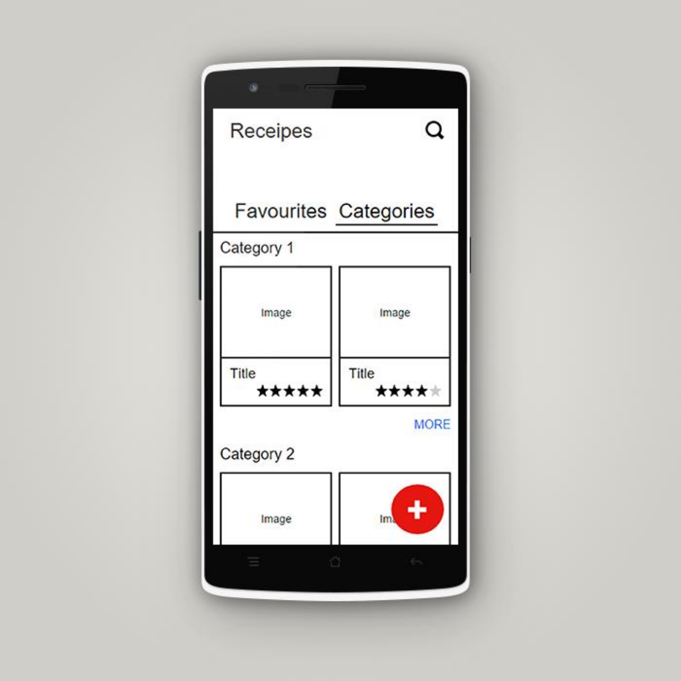
User Interface Mocks

Screen 1 - Favorites



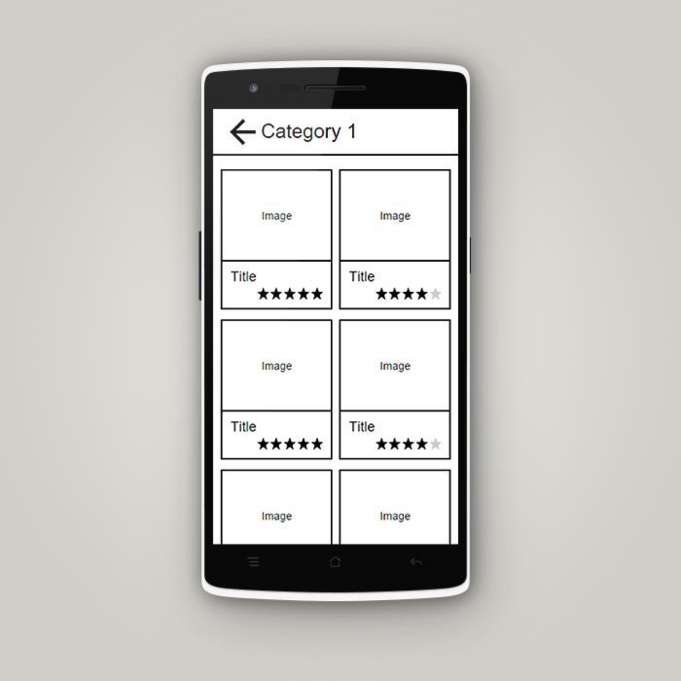
Start screen of Recipr. Displays all favored recipes. Promotes the action to add a new recipe. The main screen of Recipr is divided by a View Pager to conveniently add more content and value to the user.

Screen 2 - Categories



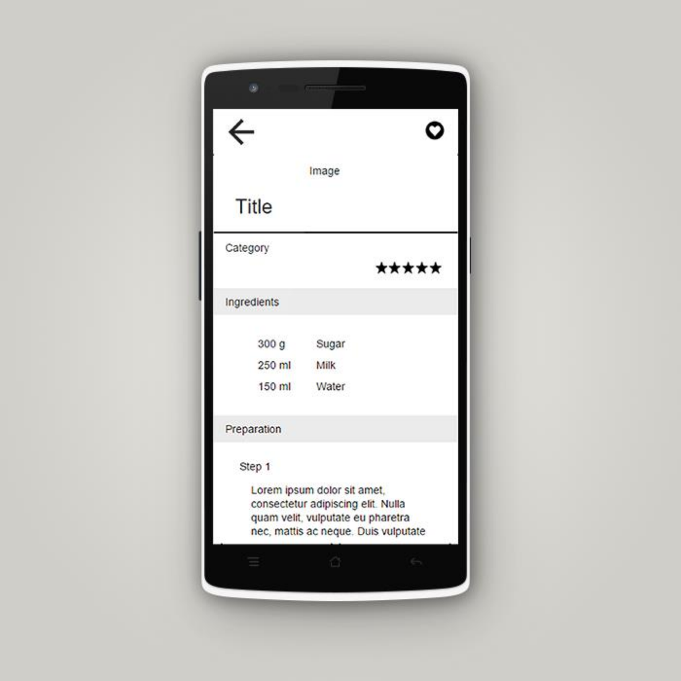
The second screen of the View Pager displays the category view where every category is listed. The user can scroll through the list and open a view with all recipes of a single category with a single click.

Screen 3 - Single category



The view the user is presented with when clicking on the 'more' option of a single category in the category overview (See also: **Screen 2 -**).

Screen 4 - Single recipe



300 g	Sugar
250 ml	Milk
150 ml	Water

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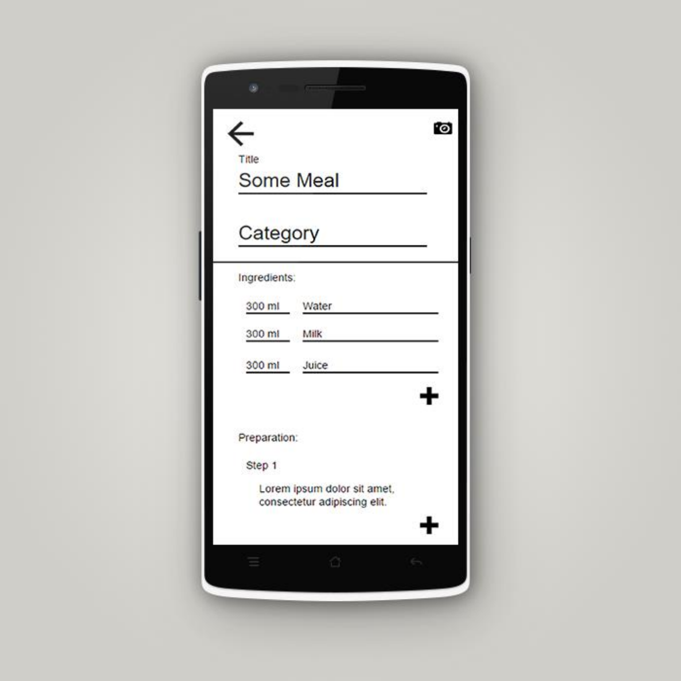
Detail view of a single recipe. Divided into three separate sections. At the top the user finds the title, the category, his rating and a full-fledged image of the recipe. Below the ingredients with their respective quantities are listed. And last but not least the Steps to create the meal are listed at the bottom. The user has the ability to rate this recipe and can mark it as one of his favorites.

Screen 5 - Add new recipe



Title

Some Meal

Category

Ingredients:

300 ml	Water
300 ml	Milk
300 ml	Juice

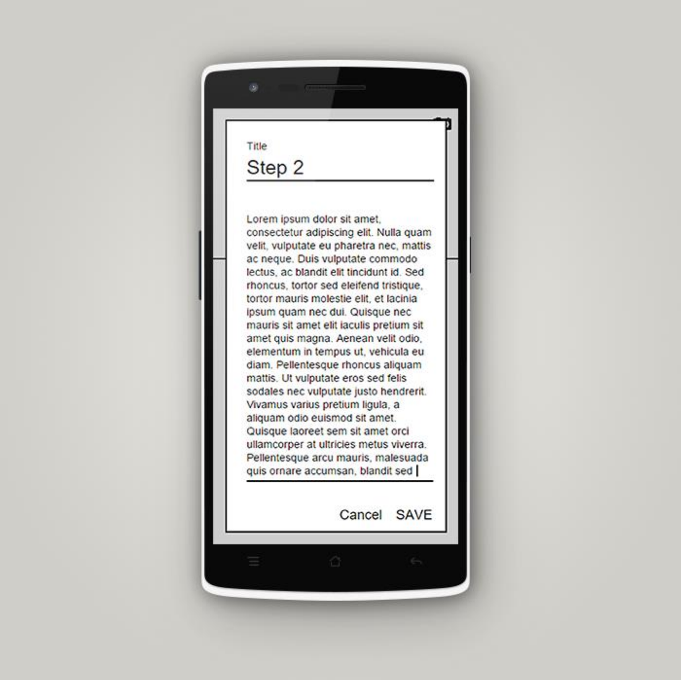
Preparation:

Step 1

Lorem ipsum dolor sit amet, consectetur adipiscing elit.

The screen to add a new recipe asks the user to provide some meta information (such as title and category) for every recipe first. After that the user can add ingredients and steps to complete the recipe. Also he is able to take a picture and assign it to the recipe.

Screen 6 - Add step



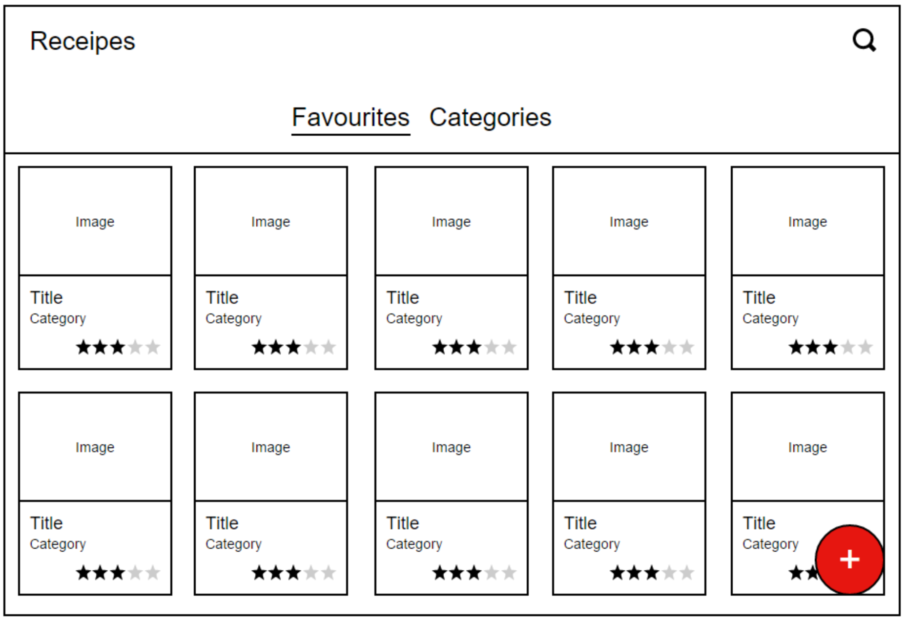
Title

Step 2

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed rhoncus, tortor sed eleifend tristique, tortor mauris molestie elit, et lacinia ipsum quam nec dui. Quisque nec mauris sit amet elit iaculis pretium sit amet quis magna. Aenean velit odio, elementum in tempus ut, vehicula eu diam. Pellentesque rhoncus aliquam mattis. Ut vulputate eros sed felis sodales nec vulputate justo hendrerit. Vivamus varius pretium ligula, a aliquam odio euismod sit amet. Quisque laoreet sem sit amet orci ullamcorper at ultricies metus viverra. Pellentesque arcu mauris, malesuada quis ornare accumsan, blandit sed

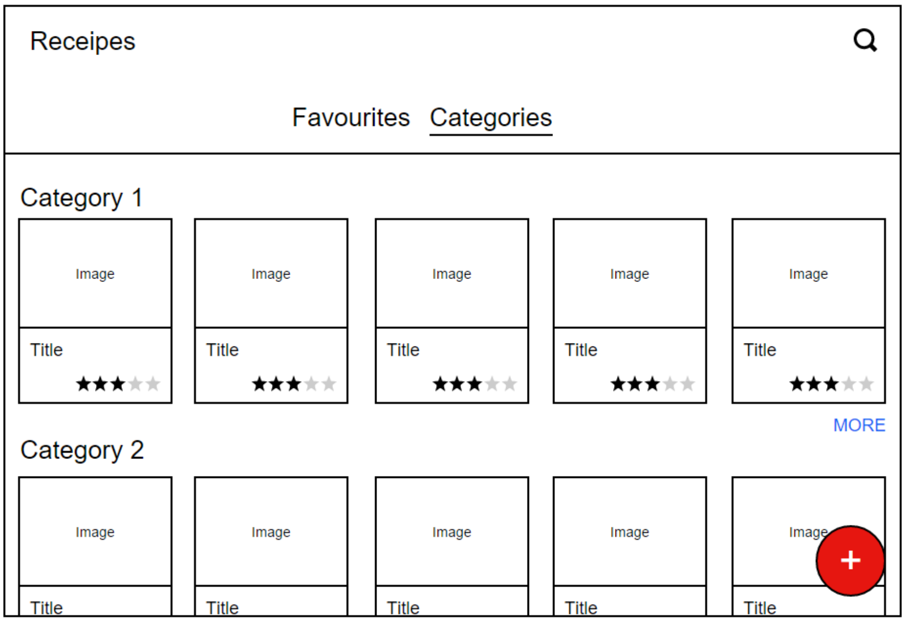
Since adding a step requires some more information the user is presented with a dialog where he can enter a title for the step (such as “preparation”) and a detailed instruction.

Screen 7 - Favorites (Tablet)



At bigger screens the content is laid out to use the space to show more recipes at a time

Screen 8 - Categories (Tablet)

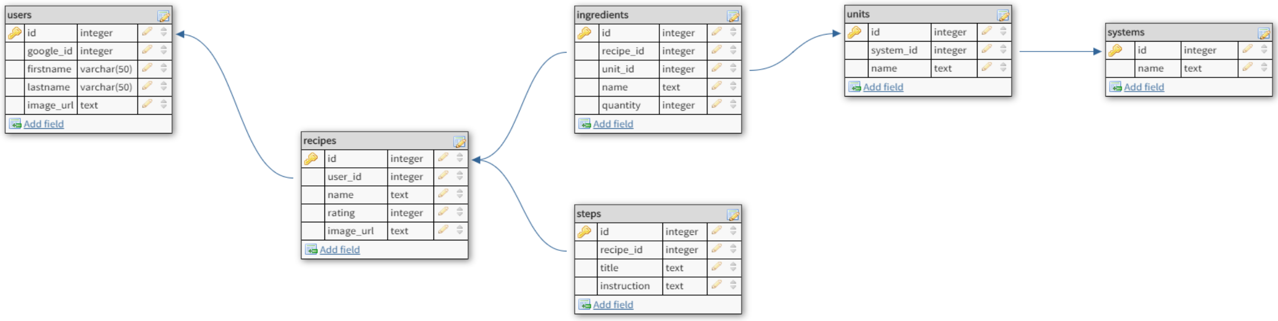


The same considerations are used for the categories view.

Key Considerations

Data persistence

The persistence of Recipr will be implemented using a SQLite Database that can be accessed through a Content Provider. The database schema will follow the illustration below:



users		
🔑	id	integer
	google_id	integer
	firstname	varchar(50)
	lastname	varchar(50)
	image_url	text
Add field		

recipes		
🔑	id	integer
	user_id	integer
	name	text
	rating	integer
	image_url	text
Add field		

ingredients		
🔑	id	integer
	recipe_id	integer
	unit_id	integer
	name	text
	quantity	integer
Add field		

steps		
🔑	id	integer
	recipe_id	integer
	title	text
	instruction	text
Add field		

units		
🔑	id	integer
	system_id	integer
	name	text
Add field		

systems		
🔑	id	integer
	name	text
Add field		

(Visit: https://www.dropbox.com/s/w1ta90bpfw1hktl/Database.png?dl=0 for higher resolution)

Utilized Libraries

- Glide for image loading and rendering (https://github.com/bumptech/glide)
- log for easier logging (https://github.com/zserge/log)
- FastAdapter for easier Recycler View implementation (https://github.com/mikepenz/FastAdapter)
- compartment for easy MVP (https://github.com/grandstaish/compartment)
- Butter Knife for View Binding (https://github.com/JakeWharton/butterknife)

Project phases

Task 1 - Project Setup

- Setup Android Project and configure Gradle
- Implement small REST API (Not scope of this project)

Task 2 - Database

- Implement Content Provider
- Implementing Content Loader

Task 3 - UI

- Implement Activities and Fragments
- Implement Tablet UI
- Implement Material Design
- Implement recipes widget

Task 4 - Sync

- Implement user login
- Implement Google Sign In
- Implement Sync Adapter

Task 5 - Advertisement

- Implement Admob