Track my pantry

or alternatively: Groceries!

Mobile Apps 2021 project

Project requirements

Partly lifted from the original requirement document:

- Update the barcode knowledge base
- Login and register to access the remote database
- Keep track of the groceries bought

Additional Features overview

- **Amounts**: in order to track groceries it must be possible to track how many instances of every product are in your pantry
- **Offline First**: manually add items
- **Product types**: types organized *functionally*
- **Barcode Scanning**

- **Dashboard**:
  - Missing Items: used as a grocery list
  - Product Percentage: simple overview, "wake-up call"
- **Login management**: authentication token saved in private storage, only prompt for login when necessary.

Choice rationale

- **Learning opportunity**: Kotlin, modern solutions
- **Complete user experience**: include small, targeted improvements
- **Avoid excessive coding burden**: have simple and easily adaptable defaults
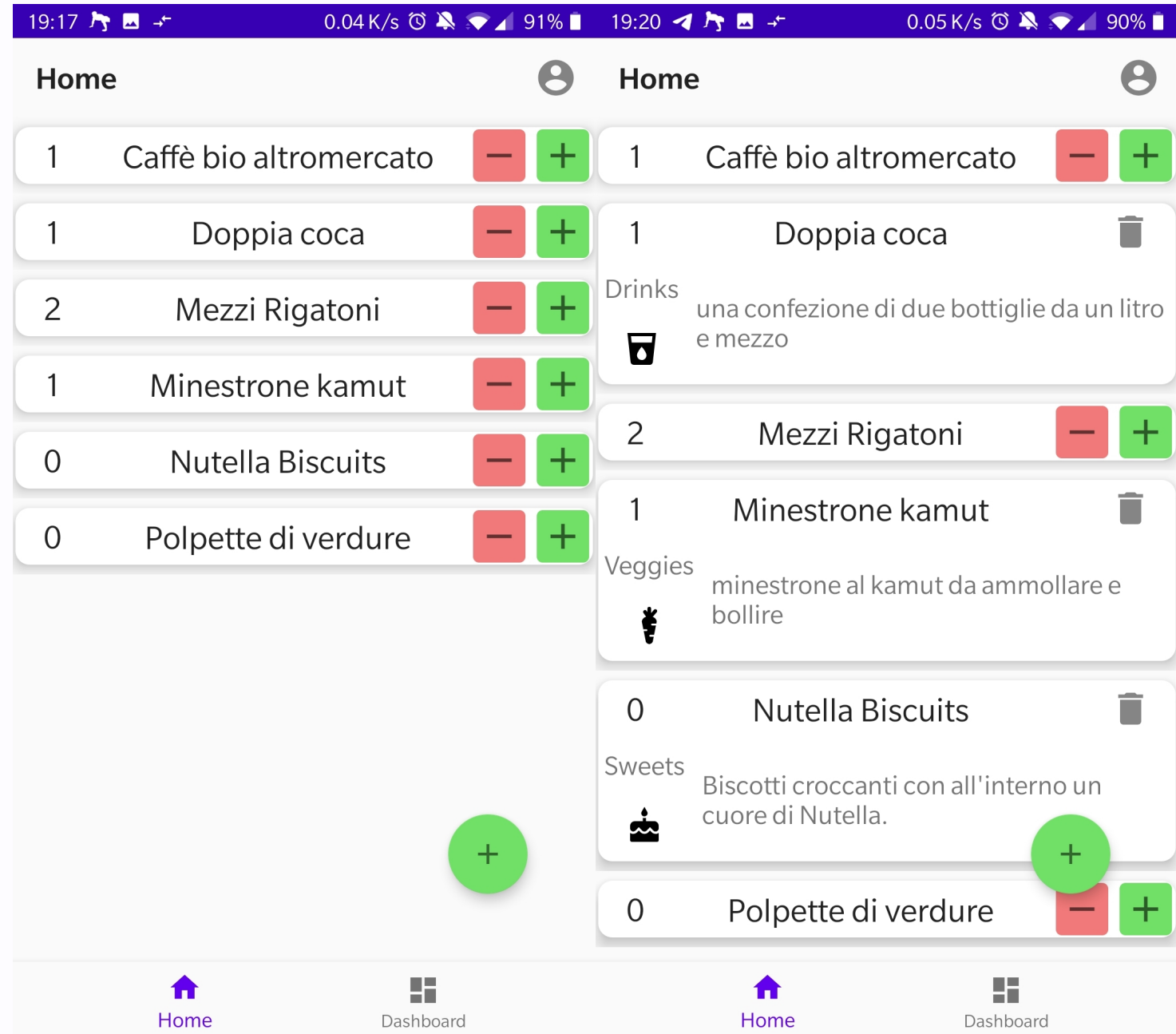
Login

- Dynamic design
- Simple layout

Login implementation

- Complete architecture:
  - ViewModel with LiveData (partially accessible)
  - Repository
  - Data Source kept separate
- Coroutine utilized:
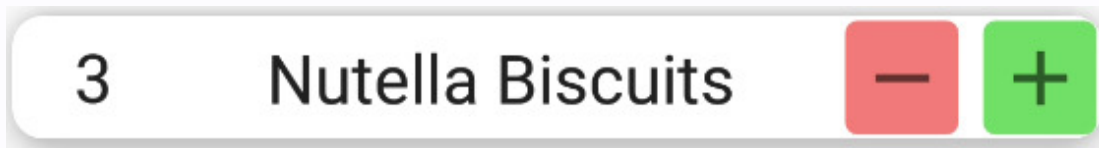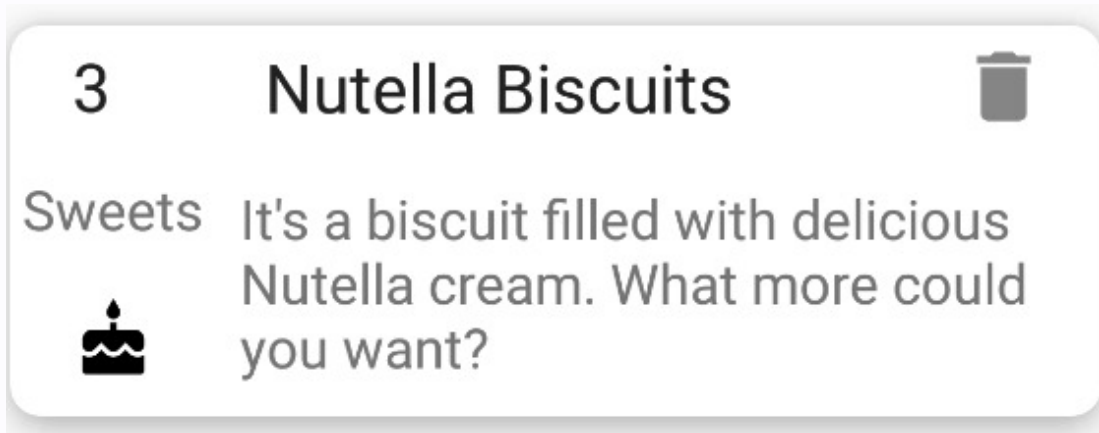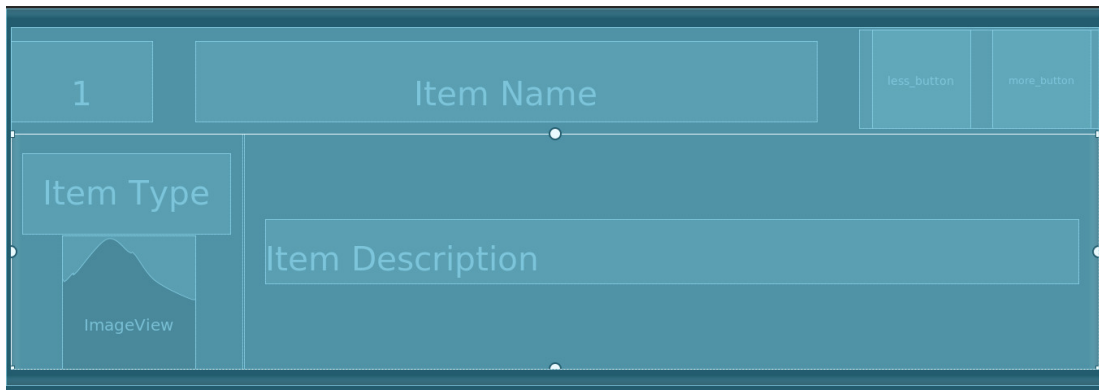 - `MainScope()` because login is synchronous

Item List

- Items are collapsable
- Direct access to often-used functions
- Persistent

Item List Implementation

- ViewModel shared with MainActivity
- RecyclerView avoids performance issues
- ViewModel, Repository and Database
- Room as a SQLite intermediary
- Non-blocking: queries executed on background "thread" (coroutines were used)
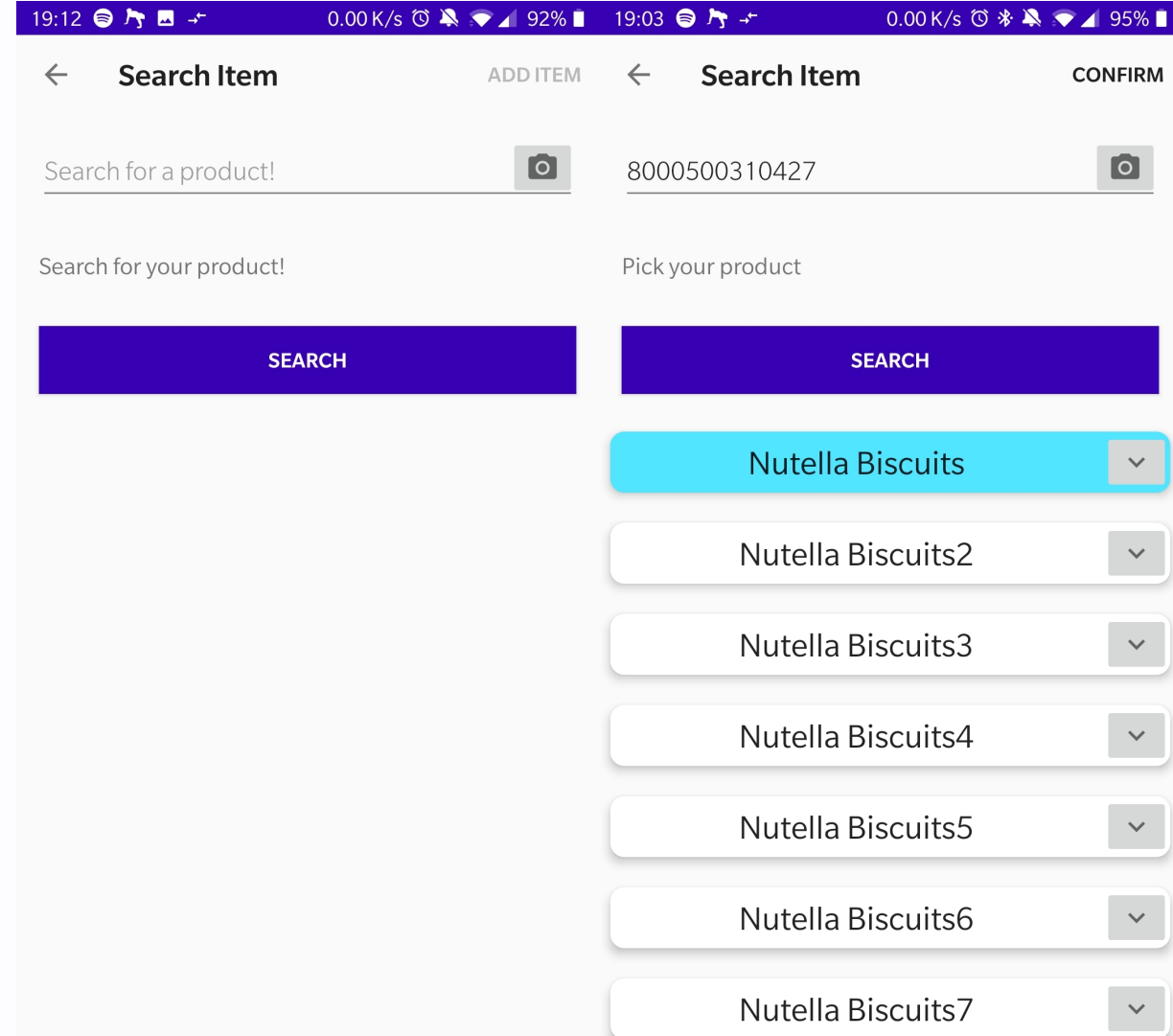
Item

- Collapsable items
- Quick actions on the collapsed item
- Small icon
- Actions implemented in Adapter

Item handling: Fetching and Browsing

- Fetching while logged in
- Require code to manually add new item
- Simple feedback text

Item handling: Manual entry and edit

- Lax requirements
- Code is non-editable
- Type is a Spinner

Dashboard

- **Missing items**:
  - Items that have amount = 0
  - Clipboard export
- **Percentage**:
  - Quick overview of groceries
  - May help with organization

Dashboard

You're missing:

Nutella Biscuits
Polpette di verdure

You have:

20% of Veggies
40% of Carbs
40% of Drinks
0% of Sweets

COPY TO CLIPBOARD

Thanks!