[Description](#_sm4ra97uwo11)

[Intended User](#_aws88pzfmqca)

[Features](#_zheq5430xrpq)

[User Interface Mocks](#_giquerrw6g46)

[Screen 1](#_a4jdupabry3k)

[Screen 2](#_dpcbbkx5yry)

[Key Considerations](#_gvcvmae8jn8u)

[How will your app handle data persistence?](#_v8my7nhtvz0m)

[Describe any corner cases in the UX.](#_gw69vjn1ico0)

[Describe any libraries you’ll be using and share your reasoning for including them.](#_6yqqubmw5bs)

[Describe how you will implement Google Play Services.](#_qrxg682nywe6)

[Next Steps: Required Tasks](#_v518bncmggeg)

[Task 1: Project Setup](#_8oe8zpk3qsmp)

[Task 2: Implement UI for Each Activity and Fragment](#_rzllsk6uqztx)

[Task 3: Your Next Task](#_fdmohs7hes)

[Task 4: Your Next Task](#_umfwsvmx7tpn)

[Task 5: Your Next Task](#_kjidlkq4xm3u)

**GitHub Username**: Your GitHub username here

Qr4All

# Description

Sometimes all of us have many things to sort it out. Where I is my favorite book? Whom I lend my game? When you are about to move to new flat you must keep in order plenty of boxes with valuables. Now everyone keep all thins things under control: print qrcode, stick it on a box and write any notes regards it.

Application includes two parts: android application and a web server. Android application is written solely in Java.

Android Studio 3.1.4 and Gradle 3.1.4 will be used. Actual versions of support libraries are:

* com.android.support:support-v4:27.1.1
* com.android.support:design:27.1.1
* com.android.support:appcompat-v7:27.1.1
* com.android.support:recyclerview-v7:27.1.1
* com.google.android.gms:play-services-analytics:10.2.4
* com.google.maps.android:android-maps-utils:0.5+

# Intended User

It an application for all users, who have some chaos =).

# Features

* Saves information
* Scan QR code,
* Add location information to it
* Show description of selected item on main screen
* Sync data with a server

# User Interface Mocks

These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Google Drawings, [www.ninjamock.com](http://www.ninjamock.com), Paper by 53, Photoshop or Balsamiq.

## Authorization



## Loading list of items

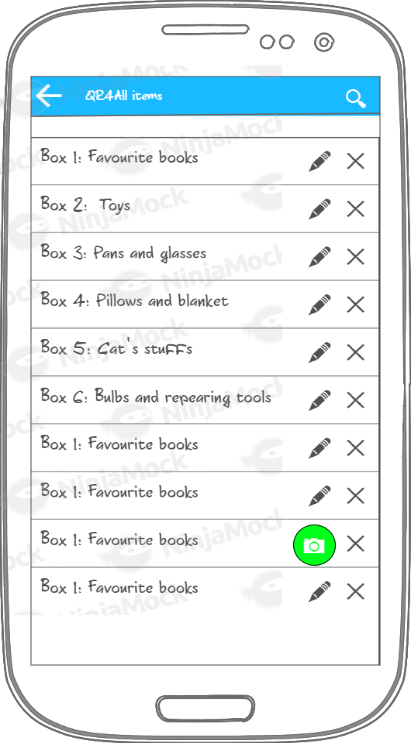
## C:\Users\dekar\AppData\Local\Temp\Rar$DRa0.460\Loading.png

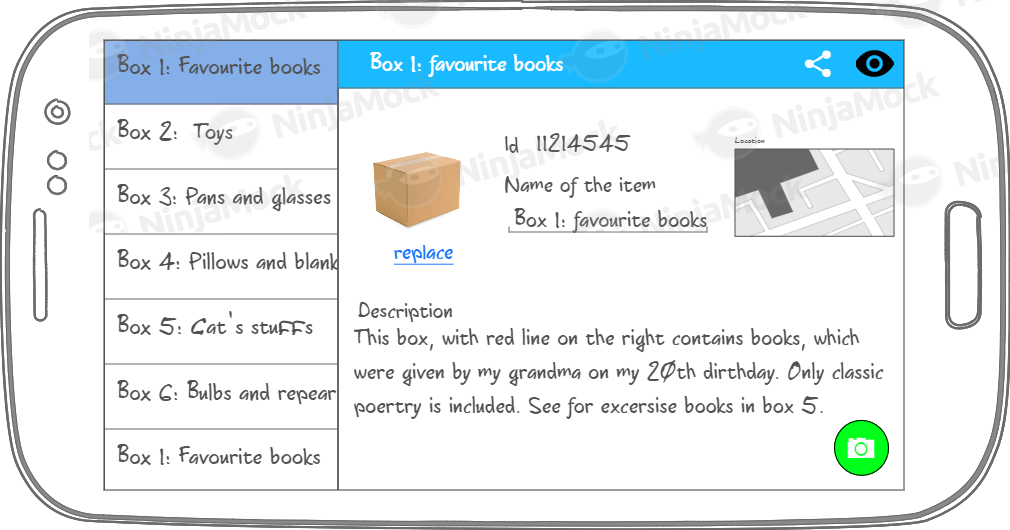
## Wrong credentials.



First screen of the app. You need sign in to be able to synchronize your data.

## List of items

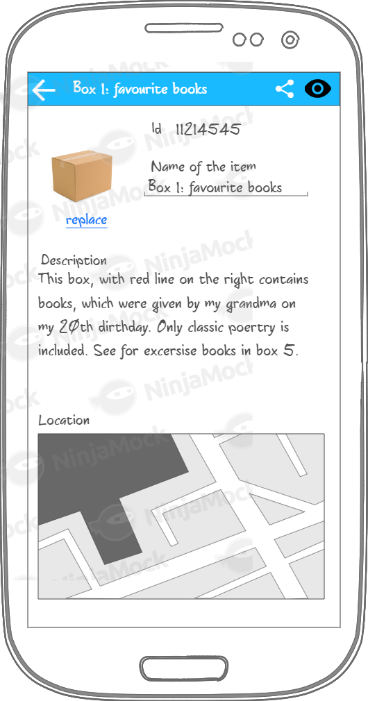




This is a list of items with FAB “scan code” button. Buttons for search, edit and remove are also available.

Landscape and portrait design list of items. Selected item is highlighted in menu.

## Item details



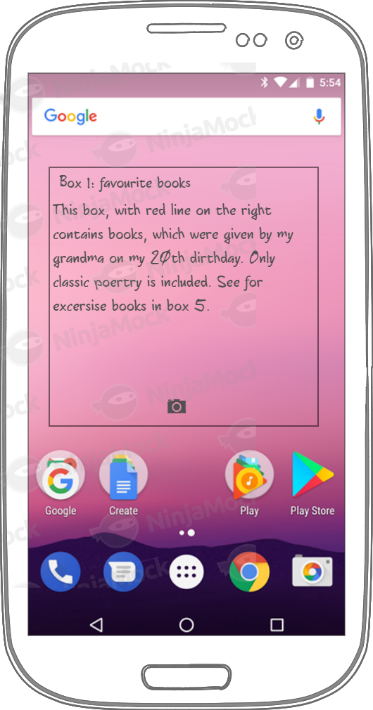
Item details view includes fields to edit name and description of an item, you can upload photo, share a link on item with your friends, or show QR code.

## Show QR code



This is QR code of an item. I think background of this page should be black for better readability, but I have not found how to change background in ninjamock ☹/

## Widget



This is a widget with a button to scan QR code.

# Key Considerations

### How will your app handle data persistence?

I will implement Content Provider. All data will be stored on server, but a copy will be stored in local SQL database. Probable, I will use Room to access to this data.

REST interface will be provided:

* POST http://qr4all.ru/signin – for authorization,
* POST <http://qr4all.ru/signup> - for registration
* GET <http://qr4all.ru/list> - list of items for current user. A “keywords” parameter is available to get search available.
* GET <http://qr4all.ru/edit> - create new item,
* POST <http://qr4all.ru/edit/1> - edit item id 1
* POST [http://qr4all.ru/delete/1 - removes item 1](http://qr4all.ru/delete/1%20-%20removes%20item%201)
* GET <http://qr4all.ru/code/1> - get code for item 1

### Describe any edge or corner cases in the UX.

The UX consider to be simple. I gave back button on all screen. There are two places, where user leave applicaition though eplicit intent: scan QR code and upload an image.

### Describe any libraries you’ll be using and share your reasoning for including them.

* Mobile Vision API for scan QR codes
* Picasso to show image of an item,
* ButterKnife

### Describe how you will implement Google Play Services or other external services.

* Google analytics to collect data how people use an application
* Google maps to pick point and save location.

# Next Steps: Required Tasks

## Task 1: Project Setup

Create empty project. Configure gradle: install google and Picasso dependencies, create basic theme, colors, dimension

## Task 2: Implement Authorization

* Mark up and activity,
* Implement Saved Preferences(access token will be stored there),
* Create AsyncTask to authorization user,
* Add validation for incorrect email/password.
* Save token to shared preferences.

## Task 3: Implement List of items

* Mark up,
* Create RecyclerView and an adapter
* Implement Content provider to fetch items from the server,

## Task 4: Details activity and how QrCode

* Create basic layout
* Edit and store elements to the server though Content Provider,
* Fetch Qcode from the server and show it on separate activity.

## Task 5: Sync data with a server.

If there is no internet collection, data should be fetches from local DB.

There I should add background sync with a server.

## Task 6: Widget

* Implement widget to show data on main screen.

## Task 5: Add analytics and maps library

Add location to Edit activity and analytics to the whole application.