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**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

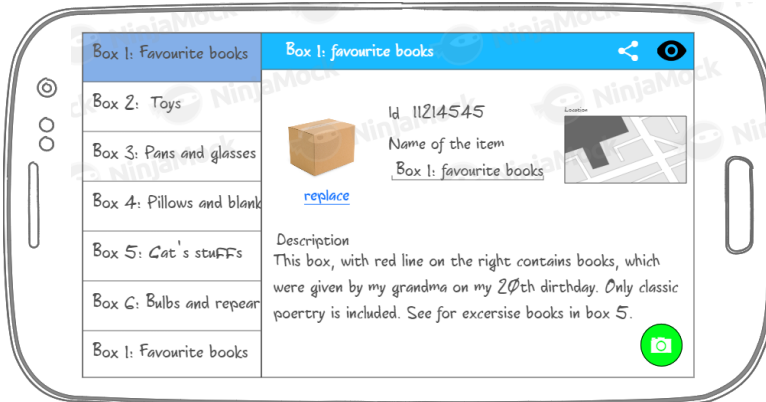
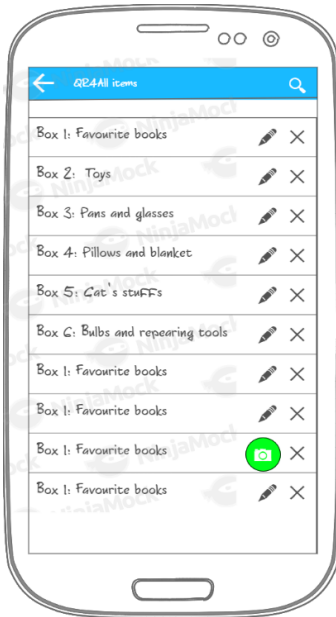


## Wrong credentials.



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

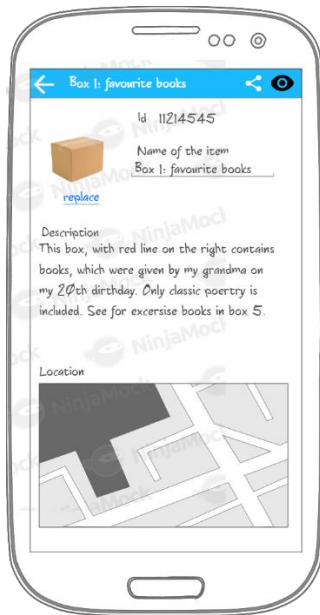
## List of items



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



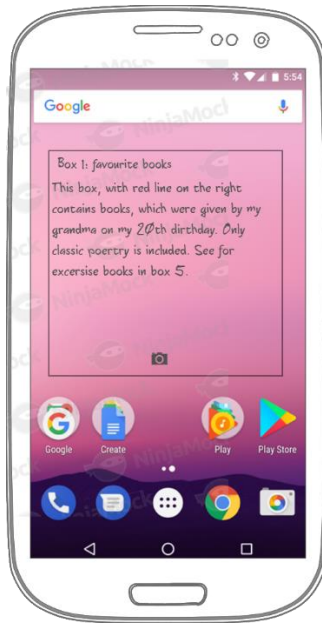
Item details view includes fields to edit name and description of an item, you can upload photo, share a link on item with your friends, or show QR code.

## 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
- 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 application though explicit 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.

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