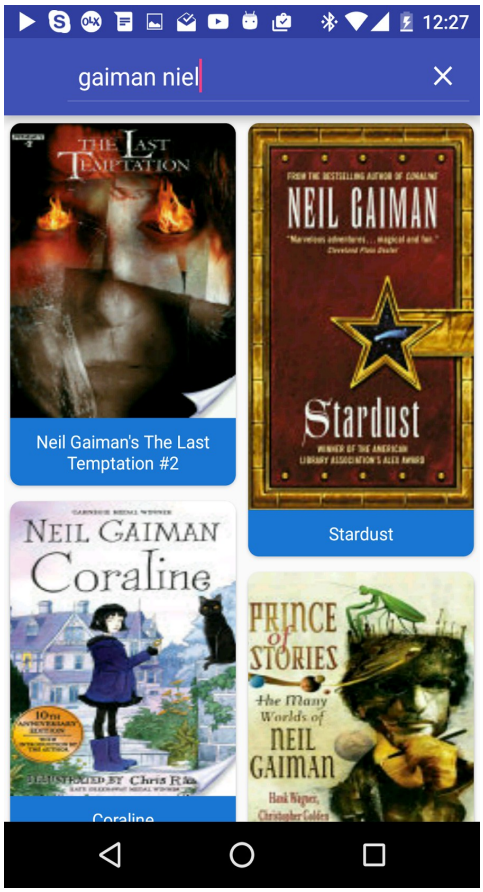
TEST TASKS

Greetings! We suggest you accomplish a small task for the Android developer position. We don't set any deadlines, yet we wouldn't like to wait a lot. We wish you good luck and look forward to results!

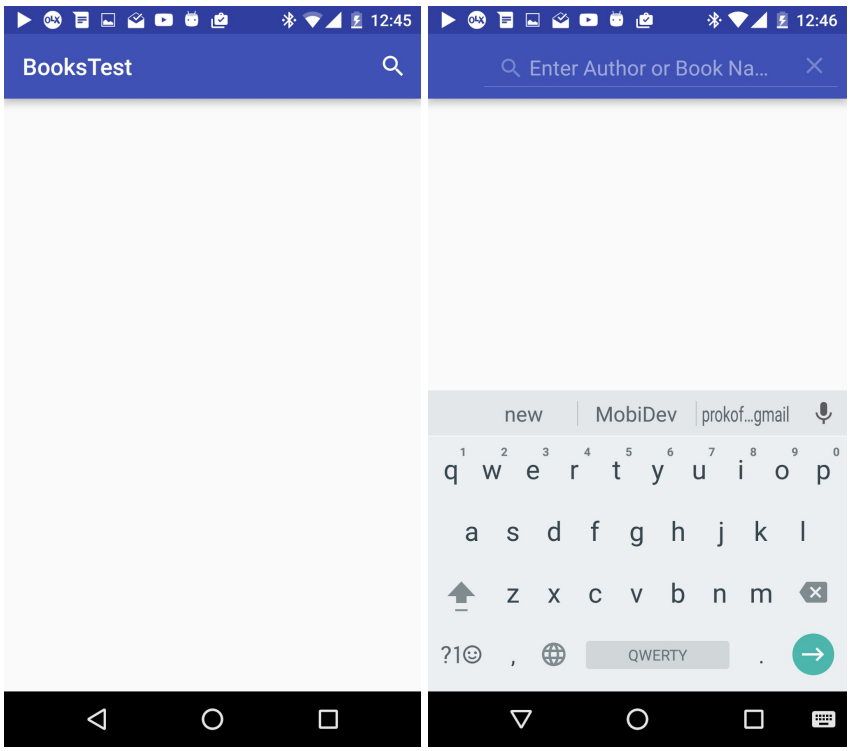
We'd like you to develop an app for getting a list of books by Neil Gaiman from the Google Books service. We have several requirements regarding the organization of several functional parts.



(screenshot_1)

How book search should be organized

Upon launching an app, a user sees an empty list with a search icon in Action Bar (screenshot_2, screenshot_3).



(screenshot_2, screenshot_3)

Upon tapping the search icon, a field is displayed, where the user should enter the author's name or a book title, then tap the search button on the keyboard to send a query to the web service (we mean standard SearchView behavior).

Take note: *search results are displayed in the same Activity. You should also prevent the situation when a new Activity is created with every new search. Upon tapping the back button, the user should always leave the application.*

Use the following query to work with Google Books:

https://www.googleapis.com/books/v1/volumes?q=Gaiman%20Niel&startIndex=0

This query will give you the first 20 books, where Neil Gaiman is mentioned in the title or as the author.

You may read more about the work with the API here:

https://developers.google.com/books/docs/v1/getting_started#REST

https://developers.google.com/books/docs/v1/using#query-params

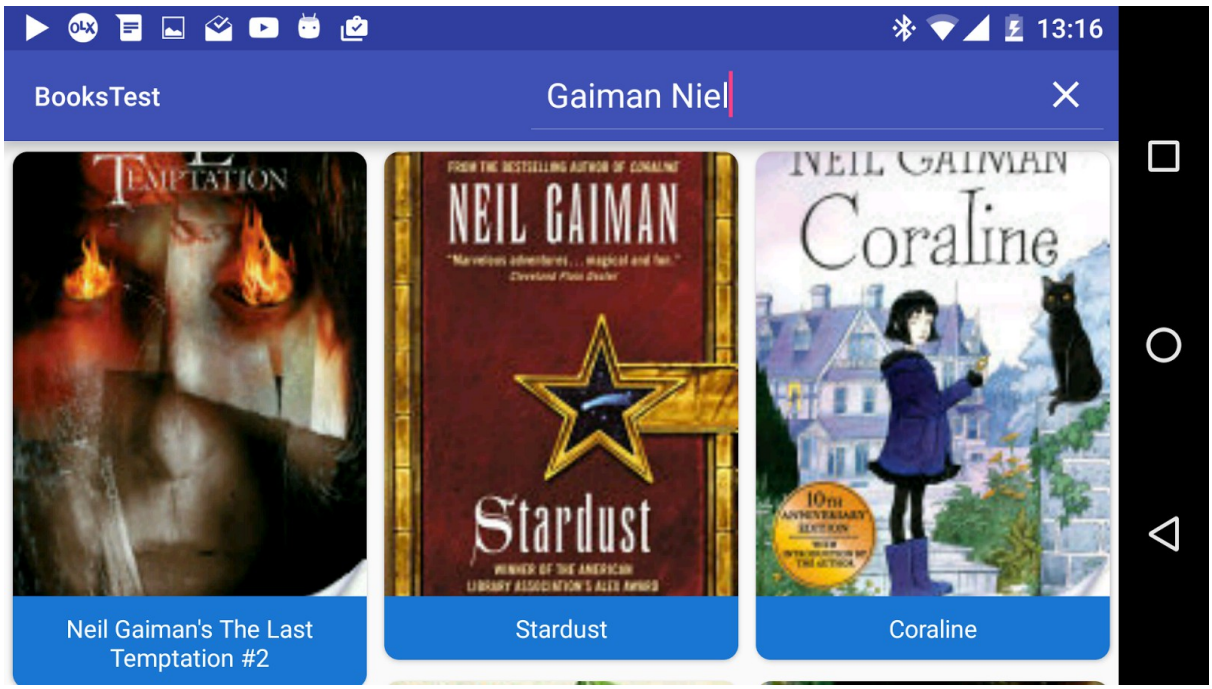
We recommend: *use Retrofit 2 for work with the network http://square.github.io/retrofit/*

How book list should be organized

The data received from the service should be displayed on a list, which is shown on screenshot_1.

Take note: *items can have different height.*
We recommend: *implement this behavior using RecyclerView and StaggeredGridLayoutManager*

Upon rotating the screen, the received data is saved, but in landscape orientation it is displayed in 3 columns (screenshot_4).



(screenshot_4)

Implement the Endless List mechanism. By default, the query gives the first 20 books that correspond with the search parameters. When the user scrolls down to the last entries, another 20 entries should be loaded. The startIndex parameter will help you with that.

Take note: *the number of entries, which correspond with the set criteria, is limited, and you should consider the situation when the user reaches the end of the list.*

We recommend: *use the following solution to implement* Endless List:
https://guides.codepath.com/android/Endless-Scrolling-with-AdapterViews-and-RecyclerView

You may optionally add PullToRefresh.

How books should be displayed

If a book has no cover or the cover has not loaded yet, PlaceHolder should be displayed.
Upon tapping an item, the browser opens and follows the link from the infoLink field.

Good luck!