How to Use this Template

1. Create a new document, and copy and paste the text from this template into your new document [Select All → Copy → Paste into new document]
2. Name your document file: “**Capstone_Stage1**”
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Global News

Description

Global News display the latest headlines using newsapi.org API. The app display ads using AdMob. Also it uses Google Places SDK for Android to display local news to the user.

Intended User

The app is for everyone who wants to know the latest news.

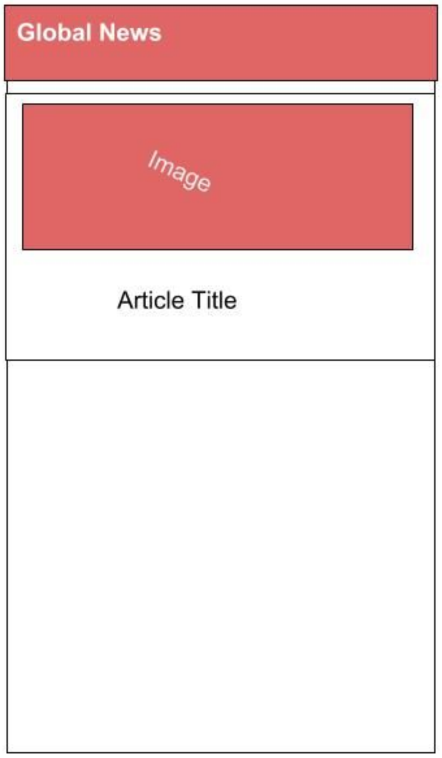
Features

- The app is written in Java programming language only.
- Display the latest news using ViewModel to keep the save the scroll position on rotation.
- Serve local news according to the user's location using Google Places SDK for Android.
- Display ads using Google AdMob.
- Users can star/like any article.
- Uses Room to save starred articles into a local database.
- Uses ViewModel and LiveData to display the articles to the user and keep the UI up to date.
- The app includes support for accessibility using content descriptions.
- The app support right to left layout switching.
- All strings are in the strings.xml file.

User Interface Mocks

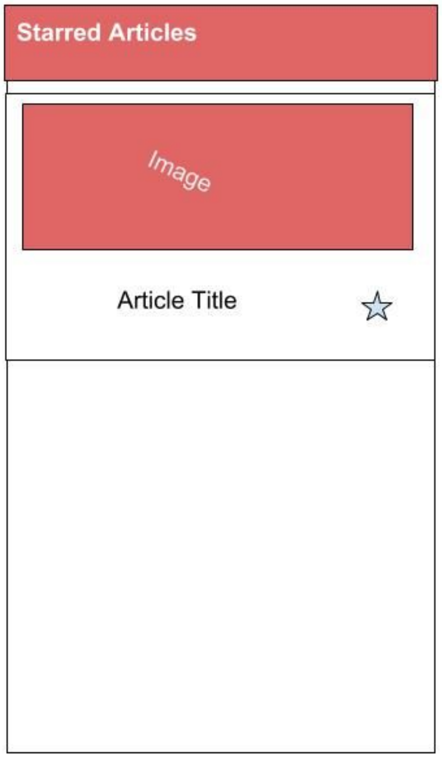
These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Google Drawings, www.ninjamock.com, Paper by 53, Photoshop or Balsamiq.

Screen 1



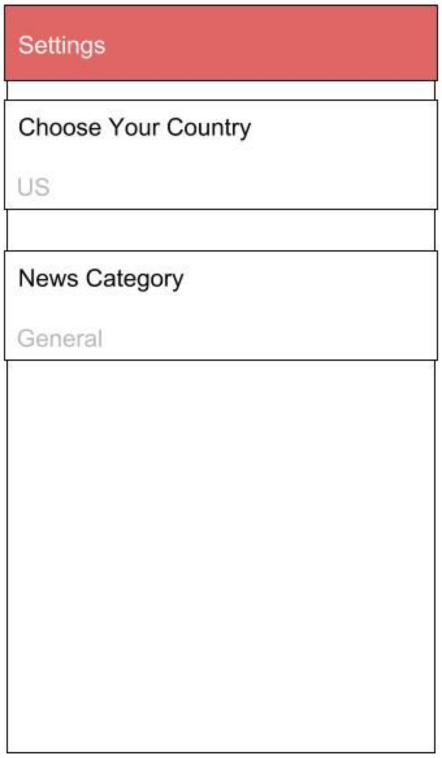
MainActivity of the app, display the latest headline news from NewsAPI.

Screen 2



StarredNewsActivity, this will display the starred/liked articles.

Screen 3



Settings

Choose Your Country

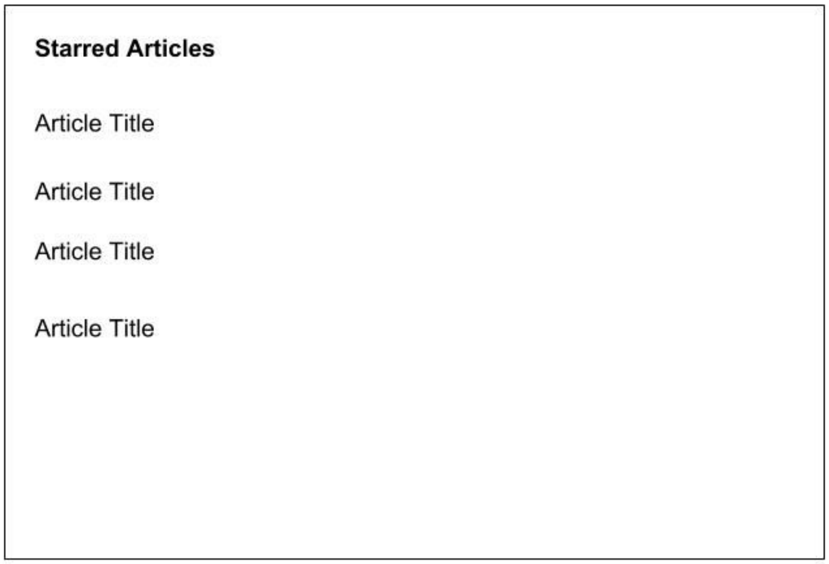
US

News Category

General

SettingsActivity, Allow the user to change the country or the news category.

Widget



App Widget, Allow the user to see starred articles at a glance.

Add as many screens as you need to portray your app’s UI flow.

Key Considerations

How will your app handle data persistence?

The app will use Room for data persistence.

Describe any edge or corner cases in the UX.

When the user unstar an article in the StarredNewsActivity and navigate back to the MainActivity, the same article in MainActivity will also be unstarred. So, both Activities will be in sync with each other.

Also, when the user changes the country or the news category in the SettingsActivity and navigate back to the MainActivity, the articles in MainActivity will be updated according to these settings.

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

- OkHttp for networking (com.squareup.okhttp3:okhttp:3.10.0)
- Picasso to handle the loading and caching of images (com.squareup.picasso:picasso:2.71828)
- Google Places API to get the user's location (com.google.android.gms:play-services-places:15.0.1)
- Google AdMob for display ads (com.google.android.gms:play-services-ads:15.0.1)
- ViewModel and LiveData for displaying data to the user and observing changes (android.arch.lifecycle:extensions:1.1.1)
- Room to handle data persistence (android.arch.persistence.room:runtime:1.1.1), (android.arch.persistence.room:compiler:1.1.1)

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

1. Google AdMob: The app will display ads using AdMob in the MainActivity.
2. Google Places SDK for Android: When the user enters the SettingsActivity for the first time, the app will request the user's location, if the user allowed that, the app will display local news if the user is in the US, Canada, UK, France, Sweden or Egypt. If the user live in another country, the app will display a Toast saying "Your country is not yet supported" and the selected country will remain the US.
3. If the user denied the location request, the selected country will also remain the US.

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and break them down into tangible technical tasks that you can complete one at a time until you have a finished app.

Task 1: Project Setup

Add the needed libraries.

I will be using Android Gradle plugin version 3.1.3 and Gradle version 4.4.

Task 2: Implement UI for Each Activity and Fragment

- Build UI for MainActivity
- Build UI for SettingsActivity.
- Build UI for StarredNewsActivity.

Task 3: Implement NewsViewModel for MainActivity.

NewsViewModel will fetch JSON and return it as a LiveData<List<News>>

Task 4: Add Room and NewsDatabaseViewModel.

Implement Entity, DAO and RoomDatabase.
NewsDatabaseViewModel will get all starred articles, insert and delete articles into and from the database.
The app uses AsyncTask to insert or delete an article from the database.

Task 5: Implement SettingsActivity and SettingsFragment.

The user will be able to change the country or the news category from the SettingActivity.

Task 5: Implement App Widget.

The app has a widget to see starred articles at a glance.
The widget is also updated each time the user add or remove an article from the database.

Add as many tasks as you need to complete your app.

Submission Instructions

- After you've completed all the sections, download this document as a PDF [File → Download as PDF]
    - Make sure the PDF is named "**Capstone_Stage1.pdf**"
- Submit the PDF as a zip or in a GitHub project repo using the project submission portal

If using GitHub:

- Create a new GitHub repo for the capstone. Name it "**Capstone Project**"
- Add this document to your repo. Make sure it's named "**Capstone_Stage1.pdf**"