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[Description](#)

[Intended User](#)

[Features](#)

[User Interface Mocks](#)

[Screen 1](#)

[Screen 2](#)

[Key Considerations](#)

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

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

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

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

[Next Steps: Required Tasks](#)

[Task 1: Project Setup](#)

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

[Task 3: Your Next Task](#)

[Task 4: Your Next Task](#)

[Task 5: Your Next Task](#)

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## NewsTrends

### Description

NewsTrends is an Android app that allows users to view news around the world and create alerts for the specific keywords, also they can save their favorite news to read it offline. It will use NewsAPI.org for news results.

Problem : Current News apps have mostly following problems

- 1) Lots of Ads
- 2) Less options for Alerts
- 3) Not having option to save news to read it later offline (Very Few Apps)

Solution : To design an app which can work without ads (except for the redirecting links to be viewed in WebView) and can give users freedom to add the topics they want alerts for. These alerts will be saved and can be deleted later. These News will be saved as alerts. Also, user can mark the favorite news which are also saved but along with the webpage on a local storage which can be read offline.

The app will make API calls for Top News based on user preferences every 12 or 24 hours (yet to decide the time interval) and update the widget accordingly. Also, the app will make an API call for everything end point which will search the news for the saved keywords by the user and will save those news as alerts. Every time the app makes calls for alerts, the user will get a notification. This will be either implemented with SyncAdapter or FirebaseJobDispatcher.

## Intended User

This app is for Everyone who likes to read News.

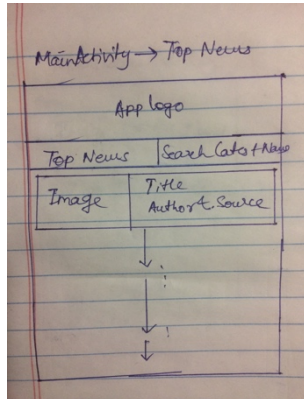
## Features

List the main features of your app. For example:

- Saves News for offline reading
- Shows top news in country by tracking the country of the user by IP address
- Custom alerts based on Keywords will be created , which will be saved in the separate sections of alerts

## User Interface Mocks

### Screen 1

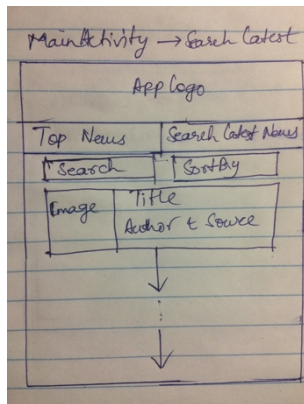


The MainActivity will consist of two tabs

- 1) Top News
- 2) Search Latest News

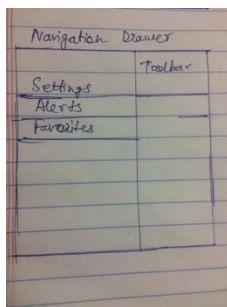
And the fragment will be followed by top news in the current country which user can change. It will use Top News endpoint.

## Screen 2



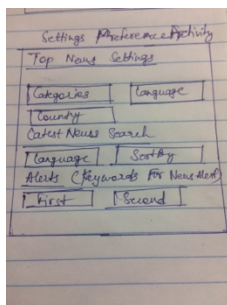
The search latest news fragment will be displayed after clicking the tab with the same name. The fragment will consist of a Search and DropDown menu to select sortby attribute. It will use Everything end point for the API.

## Screen 3



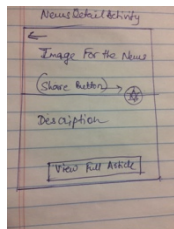
The Navigation Drawer will have three options to choose. Settings will open Settings PreferenceActivity. Alerts will open all the news user has received by custom alerts user has set and Favorites will show all the saved news.

## Screen 4



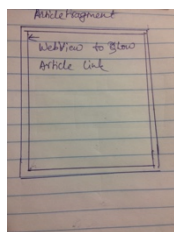
The Settings will be a PreferenceFragment having options to set for Top News, Latest News and Custom Alert Settings.

## Screen 5



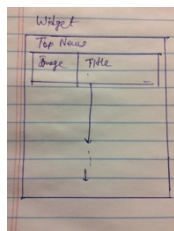
The NewsDetailActivity will consist of all the JSON parsed details for the particular news such as Description and Original link. It will also have option to save the news and share it.

## Screen 6



This fragment will show WebView with the link for the particular news.

## Screen 7 - Widget



The widget will display last fetched Top News.

## Key Considerations

### How will your app handle data persistence?

The Favorite and Alert News details will be saved as Strings in SQLite database and only Favorite news will be saved in local storage. SharedPreferences will be used for Settings.

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

If the Internet is not working, App will display only the Favorite news, if there are no favorites, app will display the message for No Internet Connection.

App will display a Snackbar message when a news is saved.

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

Glide – For Images

Retrofit – for API calls

IpApi – For finding the country of the user based on IP address of the user.

Others – Might require some other libraries which can be decided while development.

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

For Firebase Analytics and Push Notifications.

## Next Steps: Required Tasks

### Task 1: Project Setup

- Configure libraries
- Something else

### Task 2: Implement UI for Each Activity and Fragment

List the subtasks. For example:

- Build UI for MainActivity and fragments associated
- Build UI for Settings , Alerts and Favourites
- Build UI for NewsDetailActivity and associated Fragment

### Task 3: JSON Parsing, binding it with UI and Implementation of Loaders

- JSON Parsing and Binding it with UI to display news in MainActivity and NewsDetailActivity
- Implementation of Loaders
- Implementation of Settings PreferenceActivity

### Task 4: Database Implementation

- Creating Database and ContentProvider
- Handle Database operations with UI

## **Task 5: Implement Notifications and Firebase Analytics**

- Implementation of SyncAdapter or FirebaseJobDispatcher for regular API calls
- Experimenting with Alerts by implementing Notifications
- Implement Firebase Analytics

## **Task 6: Implement UI for Tablet**

- Implement a working UI for tablet

## **Task 7: Check for Errors**

- Manually Test and try to find possible errors

## **Task 8: Finish and Submit**

- Generate APK's and check all the rubric against project
  - Submit
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