

CS310 / Spring 2019-20 – Homework 3

Objective

The first phase of the application is complete and the client approved your mock-up screens. The second phase will proceed on binding your screens (activities) to the news agency's restful web service. The information about the web service is at the at of this document.

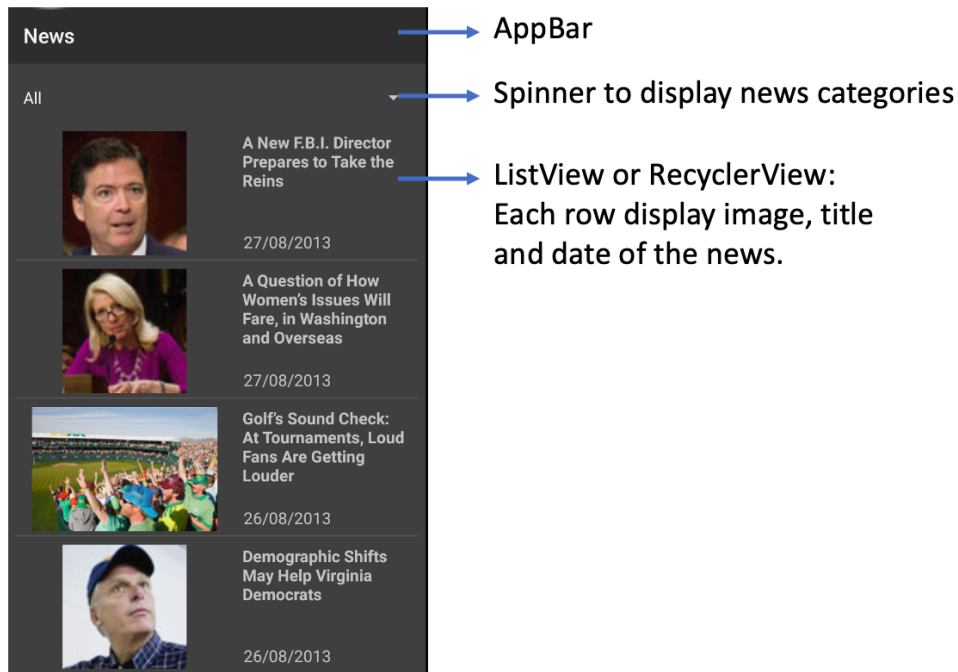
Split the Task:

- You may begin with the NewsStarterExample application provided, and by using the NewsItem and CommentsItem classes you may create a first version, just with all the requires User Interface codes without using the web service.
- Then you may proceed with just binding your User Interface to the data from the webservice.

Requirements

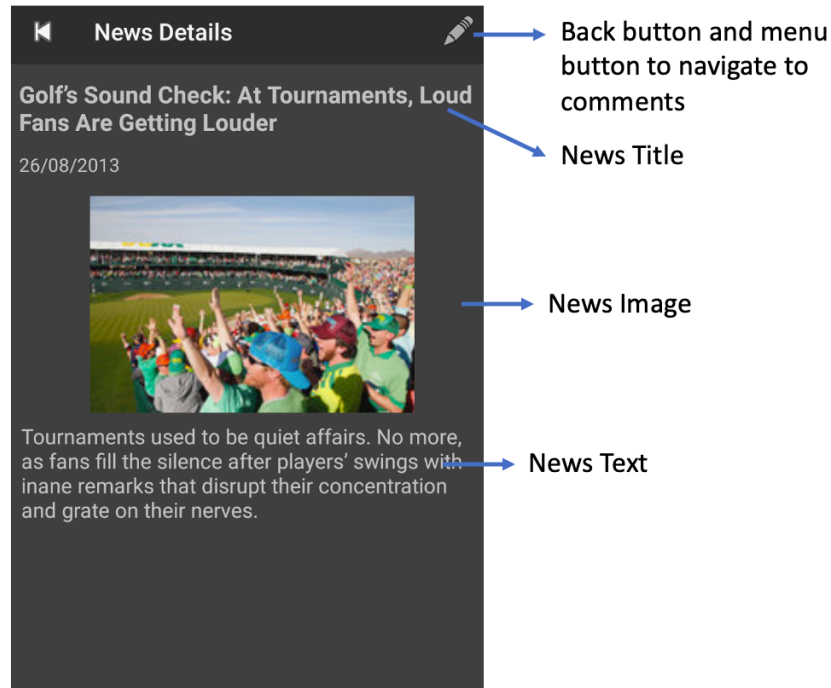
Main Activity (35 pts.)

- When starts, display a Progress Dialog while downloading the news data from “[Get All News](#)” service. The service will return you news items with their image links, you will need to download the news images separately using these links. **(15 pts.)**
- When a category is selected using the Spinner at the top of the screen, filter the news data using “[Get News By Category Id](#)” service. Display a progress dialog while downloading data. **(10 pts.)**
- You can get a list of categories using [Get All News Categories](#) service.
- Display an **image**, **title** and **date** of each news item in RecyclerView **(10 pts.)**



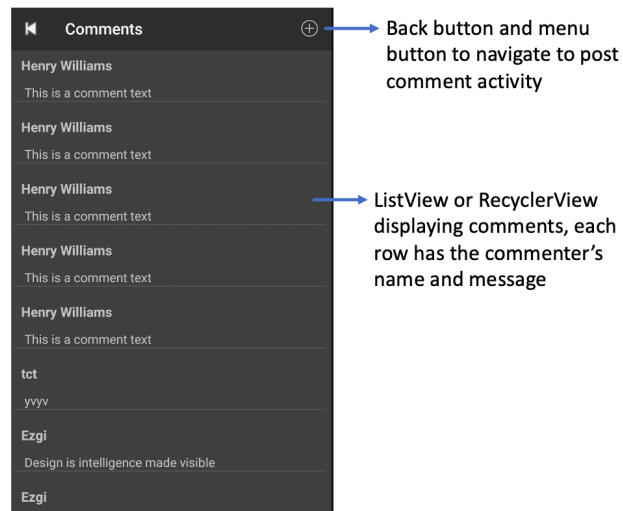
News Details Activity (20 pts.)

- When a news item is selected from the MainActivity, app navigates to News Details Activity displaying the details of the news. **(5 pts.)**
- You can pass the selected news info here using an Intent object from MainActivity or pass the news id and get use of the “[Get News By Id](#)” service. You will need to download the image separately using the “imagelink” fields returned by the service.
- AppBar display Back Button to navigate to the MainActivity and a menu button to navigate to Comments activity. **(5 pts)**
- Display the image, title, date and text of the news, the screen must be scrollable. **(10 pts.)**



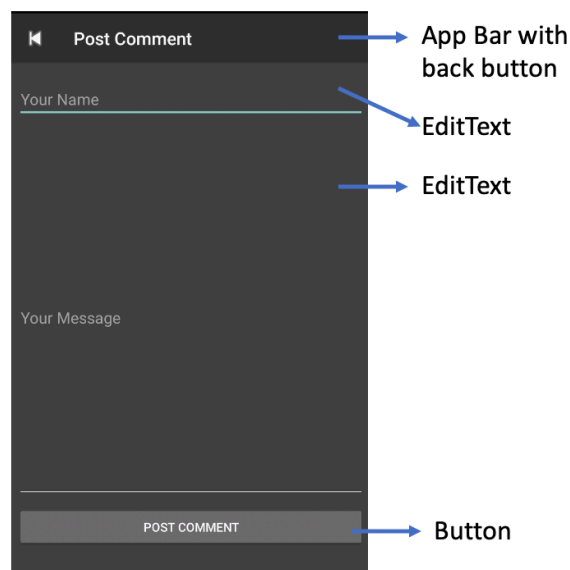
Comments Activity (25 pts.)

- When the “View Comments” button clicked from News Details Activity, this activity is displayed. You can pass the news id from the previous activity and get use of the “[Get Comments By News Id](#)” service. **(10 pts.)**
- Display a progress dialog while downloading data.
- Display a RecyclerView containing comments, display name of the comment owner and their message in each row. **(10 pts)**
- AppBar contains Back button and a button to navigate to Post Comment activity. **(5 pts.)**

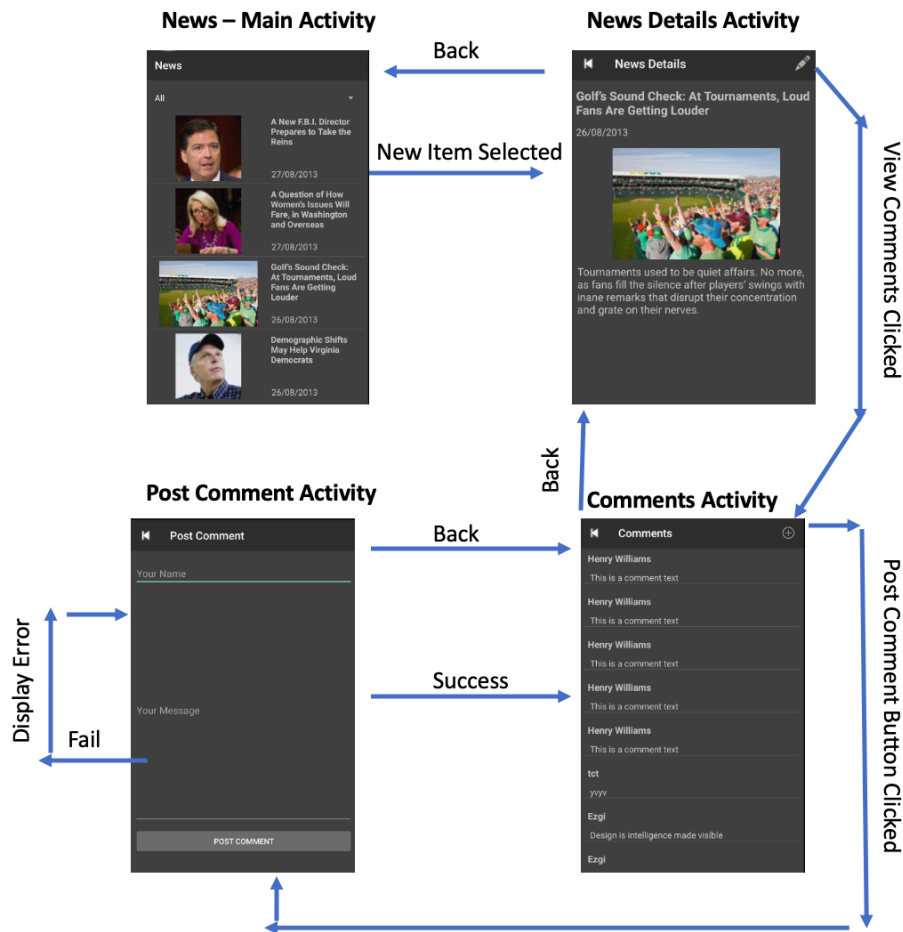


Post Comment Activity (20 pts.)

- AppBar displays a Back button to navigate to Comments activity.
- Screen contains an EditText field for comment owner's name, a multiline EditText for comment owner's message and a button for posting action.
- When the Post Comment button is pressed, get use of the "[Post Comment](#)" service to post the comment to the web service. Display a progress dialog while uploading the data. **(10 pts.)**
- If any errors is returned from the web service, display it with an Alert Dialog.
- If the post operation completes successfully, display the previous "Comments" activity refreshing it with the last comment posted. **(10 pts.)**



Application Schema



Additional Notes

- As long as the application functions as described above, it is free to use fragments, styles, any kind of icons (or just text), alternative back and home navigation functionality, or any other components.

The News Service

- The news agency provides you a Restful web service, the details are below.
- All requests returns a JSON response with the following fields:
 - serviceMessageCode : if "0", request failed. If "1" request is successful
 - serviceMessageText: "SUCCESS" for successful calls, "FAIL" for failed calls and exception message for exceptions.
 - items: List of items returned, null if not valid
- In the service addresses, parts stated between curly parantheses ("{}") are the fields those must be provided by the service consumer.

Get All News Categories

Address:

<http://94.138.207.51:8080/NewsApp/service/news/getallnewscategories>

Returns: The news categories in items field. All items contain id and name fields. You can use it to check out filtering by category id using “Get News By Category Id” service.

Get All News

Address:

<http://94.138.207.51:8080/NewsApp/service/news/getall>

Returns: The news items in “items” field. All items contain id, title, text, date (timestamp), categoryName and image fields.

Get News By Category Id

Address:

<http://94.138.207.51:8080/NewsApp/service/news/getbycategoryid/{category id}>

Returns: The news items in “items” field by the specified category. All items contain id, title, text, date (timestamp), categoryName and image fields.

Get News By Id

Address:

<http://94.138.207.51:8080/NewsApp/service/news/getnewsbyid/{news id}>

Returns: A single news item in the items field of a specific id. The item in the items list contains id, title, text, date (timestamp), categoryName and image fields.

Get Comments By News Id

Address:

<http://94.138.207.51:8080/NewsApp/service/news/getcommentsbynewsid/{news id}>

Returns: All comments of the specified news id in items field. All items contain id, news_id, text and name fields. Name field is of the comment owner’s.

Post Comment

Address:

<http://94.138.207.51:8080/NewsApp/service/news/savecomment>

Requires POST method, accepts JSON with the following format:

```
{
  "name": "Henry Williams",
  "text": "This is a comment text",
  "news_id": "49"
}
```

name: Name of the comment owner

text: The comment text

newsid: id of the news the comment is posted to, must be a valid news id for a successful post, JSON type is string.

All fields are required, if there is a missing field or an error you will get “0” in the serviceMessageCode. If a successful post occurs, you will get “1” in the serviceMessageCode field.

Have Fun!