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Technomania News App

A Project Report of Capstone Project – 2

Submitted by

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Of

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IN**

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Under the Supervision of

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SCHOOL OF COMPUTING AND SCIENCE AND ENGINEERING

BONAFIDE CERTIFICATE

Certified that this project report "Technomania News Application" is the bonafide work of "RITU KUMARI"(1613112038) who carried out the project work under the supervision.

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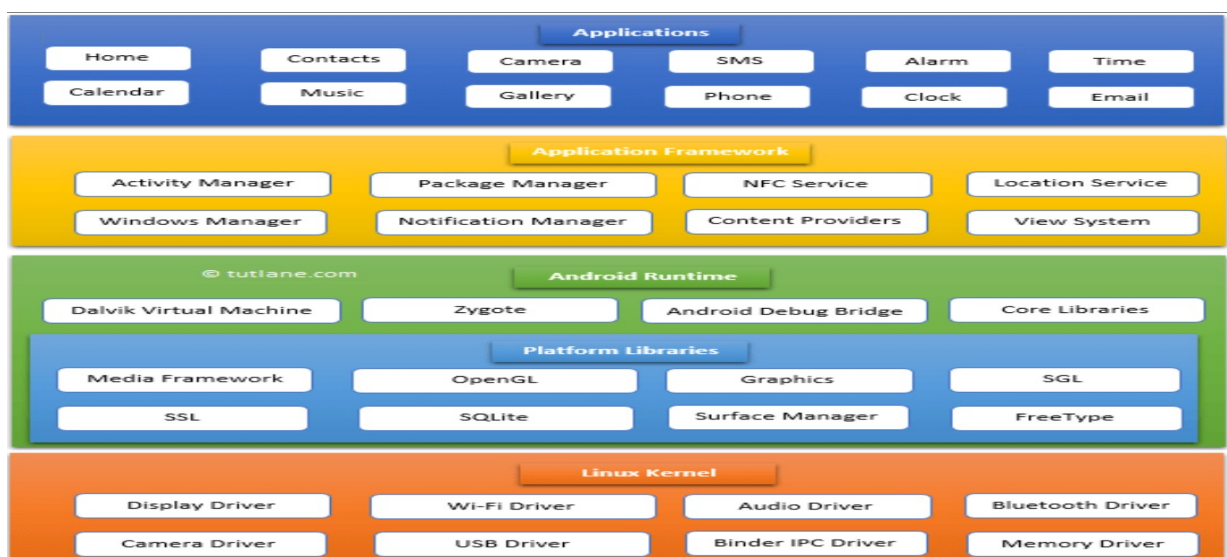
1. Title of the Project:

TECHNOMANIA

2. Abstract of the project:

The main objective of the project is to provide people a handy ^[1]android application through which people can access all types of news and information. Through this application, any user can gain technical knowledge of the world and its surrounding with just one click ahead. User does not have to visit multiple sites for different related information. All information is going to be in one place.

Many people generally get the redundancy in the information. Sometimes, people even spread fake news, which circulates and spread more like a disease of false information in WhatsApp and other social media. Various myths are also likely to spread as soon as possible which gives more harm than good to the people. This app while cross-checks the redundancy in the information along with the false and misleading information, which later results in panic in the people.^[2]



3. Introduction:

(i) Overall description:

In the current scenario, there is no single platform (in application) present right now which provides cybersecurity information, E-Sport information, Science and Technology Information, etc. in one place. Cybersecurity users have to visit different websites to gather the news related to the cyber world. Many people do not have the time to visit different sites to gather information. Ultimately, this would be a waste of time and effort. Visiting different websites, the user might get the redundancy in the information.^[3]

(ii) Purpose:

The purpose is to develop an android application, which will eliminate the problems faced in the current scenario. This application will provide all the information and news related to cybersecurity, E-sport, Science, and Technology or that are in trend at one place. So, it will save time and efforts of the users by making it more efficient. Using, this application will terminate the possibility of information redundancy.

(iii) Motivations and scope:

The Motivations and scope behind this project are to connect people through this ^[4]application and provide a medium to share their views on the topic/news/information. Then, People with the same interest can interact with each other. However, they can even share more information on the topic. Later on, we can publish this application on the Play Store.

How to publish an Android app on Google play store:

It is free to publish or submit android applications but first, you have to have a ^[5]**Developer Account** on

Google Play Store. Creating a 'Developer Account' is not free. One has to pay to create a 'Developer Account'. It costs \$25 to create that very account. After creating the account you can publish more than

one application if you need it. There are three steps before you begin publishing.

These are-

- **Create a Google Play developer account.** (Registration fee **\$25**)
 1. Create a **Google Wallet Merchant Centre** account
 2. Download the app's **APK** file.

There are eight steps to submit and upload your app. These are-

1. **Login** to your **Google Play** account.
2. Click **All Applications** and then click **+ Add new application**.
3. Select your **Default language**, enter your app **Title**, and click **Upload APK**.
4. Click **Upload your first APK to Production**.
5. Click **Browse files**, and browse to yours.APK file.
6. Click the **Store Listing** tab.
7. Enter the following product details.
8. Click **+ Add Screenshots** to add screenshots of your app.

All is done! Enjoy.

4. Software Requirement Specification:

4.1 Hardware configuration:

Below mentioned are the minimum requirements by the phone:

CPU	Octa-core 1.3 GHz and above
RAM	2GB and Above
Display	1080*1920 Resolution,16:9 ratio and above
Internal memory	8 GB
Chipset	MediaTek/Snapdragon/Exynos
Size	4.0+ inches (401 PPI)
GPU	Adreno, Mali, Bionic

4.2 Software Requirements/ Technologies used:

Operating system	Android 6.0(Marshmallow) and above
Coding Language	Java, XML,kotlin
Java Platform	JRE1.8.0 amd64 and JDK 64-bit Server VM by Jet brains
IDE	Android Studio 3.5.2

4.3 Experimental Setup:

1. ^[6]Install the latest version of IDE ANDROID STUDIO in your System to set the environment for the project.
2. Configure the android studio by downloading the Intel HAXM installer.
3. Select the starting activity in the initial window of the IDE.
4. Configure the minimum requirement for the application.
5. We have to create an Android Virtual Device (AVD) to test and run the application on the virtual platform before deploying.
6. After completion, the debugging of the application is done before deploying.

5. Proposed Model:

Modules:

The proposed software will be having the following modules:

1. **RSS List:** ^[7]RSS stands for Really Simple Syndication. This list will provide the user with a way to get all the updates and content available on the website in the android application so that the user does not need to visit the different websites daily. This list is a collection of multiple RSS documents. We are going to collect these documents and show them to the user in our application.
2. **News Feed:** All the information related to the cyber world will be present in this module. The information here will be provided in the form of the **headlines** or **trending**. The user can scroll through the headlines and click on them to read the full article.
3. **API Key:** API News Is JSON API for live news and blog articles from the media.
4. **Settings:** In this module, the user can decide whether to show the notifications or not, show the notifications with the priority on the top of the notifications list.
5. **About:** In this module, the user can know the information related to this application like its VERSION, TERMS OF SERVICE, PRIVACY POLICY, LICENSES ETC.
6. **Activities:** This app will contain different activities like Scrolling activity and the navigation Drawer activity. The scrolling activity will contain all the

information headlines in a scrolling format. The navigation Drawer activity contains all the different modules like RSS list, Setting, About.

6. Implementation:

Step 1. Install And Configure your Android Studio with the new version, then afterward create a new android project, application name "News App" with minimum android and tablets API 4.0 jelly Bean configuration with configuring activity "main activity".

Step 2. Now configure Gradle Scripts in build.gradle for customizing dependencies then sync it, now in android manifest give the user permission for INTERNET.

Step 3. Now the main design process starts from res session accompany with drawable, layout, mipmap, and values (color). Change it according to your desire.

Step 4. Now create the package modules in java, afterward create the **News, Article** and **Source class** in that module package as mention in ^[8]News API

Step 5. Generate your News API key from www.newsapi.org, API News Is JSON API for live news and blog articles from the media.

Step 6. Create another package for API in the same java folder then, add a new **API client class** and **API interface** in it.

Step7. API Interface uses retrofit2 as HTTP Client. Retrofit is a REST Client for Java and Android. Its use is very easy.

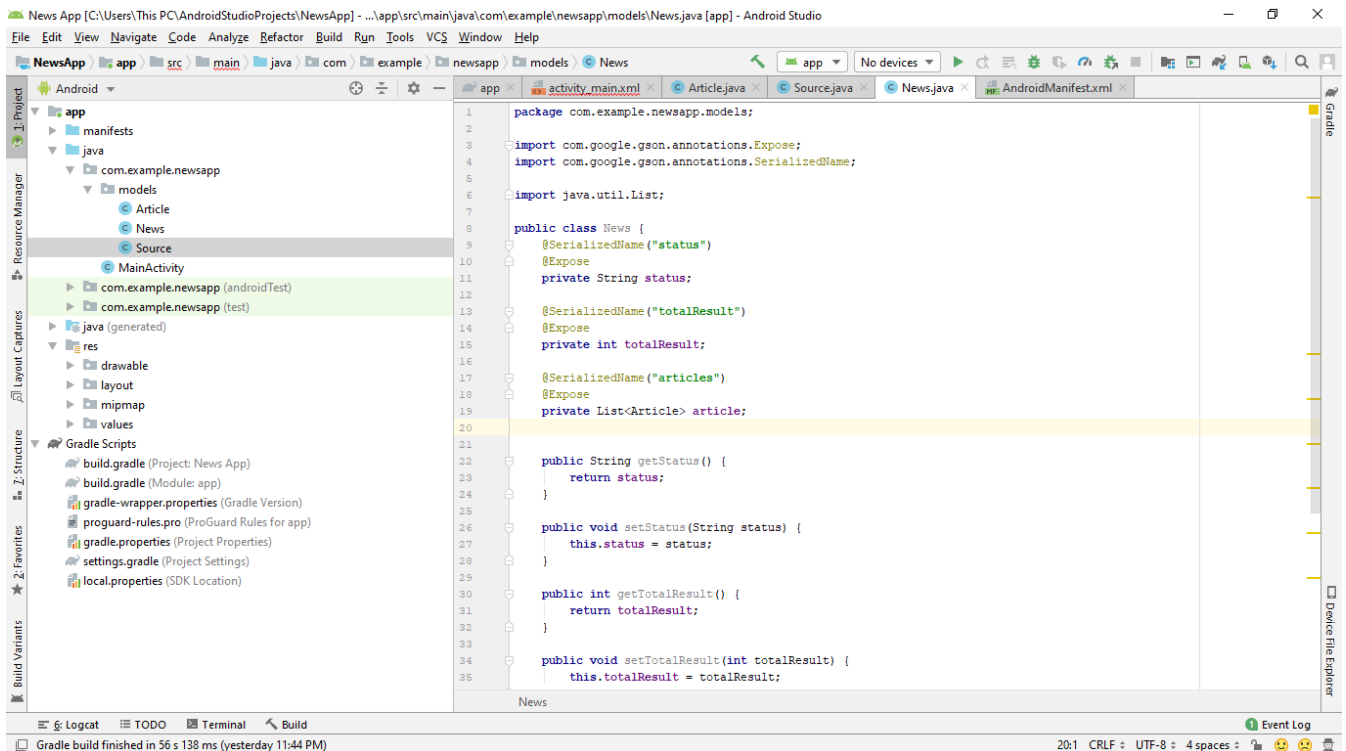
Step 8. Now the overall design process started by adding the new resource file name **item** in the layout folder.

Step 9. Configure your desire layout then, extend all the classes code in the **Adaptor class** And **util class**.

Step 10. Then add your Secret News API key in the **mainActivity** class.

Step 11. Run the program.

7. Output / Result / Screenshot



```
1 package com.example.newsapp.models;
2
3 import com.google.gson.annotations.Expose;
4 import com.google.gson.annotations.SerializedName;
5
6 import java.util.List;
7
8 public class News {
9     @SerializedName("status")
10    @Expose
11    private String status;
12
13    @SerializedName("totalResult")
14    @Expose
15    private int totalResult;
16
17    @SerializedName("articles")
18    @Expose
19    private List<Article> article;
20
21
22    public String getStatus() {
23        return status;
24    }
25
26    public void setStatus(String status) {
27        this.status = status;
28    }
29
30    public int getTotalResult() {
31        return totalResult;
32    }
33
34    public void setTotalResult(int totalResult) {
35        this.totalResult = totalResult;
36    }
37
38 }
```

News App [C:\Users\This PC\AndroidStudioProjects\NewsApp] - ...app\src\main\java\com\example\newsapp\models\Article.java [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

NewsApp > app > src > main > java > com > example > newsapp > models > Article

```

1 package com.example.newsapp.models;
2
3 import com.google.gson.annotations.Expose;
4 import com.google.gson.annotations.SerializedName;
5
6 public class Article {
7
8     @SerializedName("source")
9     @Expose
10    private String source;
11
12    @SerializedName("author")
13    @Expose
14    private String author;
15
16    @SerializedName("title")
17    @Expose
18    private String title;
19
20    @SerializedName("description")
21    @Expose
22    private String description;
23
24    @SerializedName("url")
25    @Expose
26    private String url;
27
28    @SerializedName("urlToImage")
29    @Expose
30    private String urlToImage;
31
32    @SerializedName("publishedAt")
33    @Expose
34    private String publishedAt;
35

```

Article

Logcat TODO Terminal Build

Gradle build finished in 56 s 138 ms (yesterday 11:44 PM) 35:1 CRLF UTF-8 4 spaces

News App [C:\Users\This PC\AndroidStudioProjects\NewsApp] - ...app\src\main\java\com\example\newsapp\models\Source.java [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

NewsApp > app > src > main > java > com > example > newsapp > models > Source

```

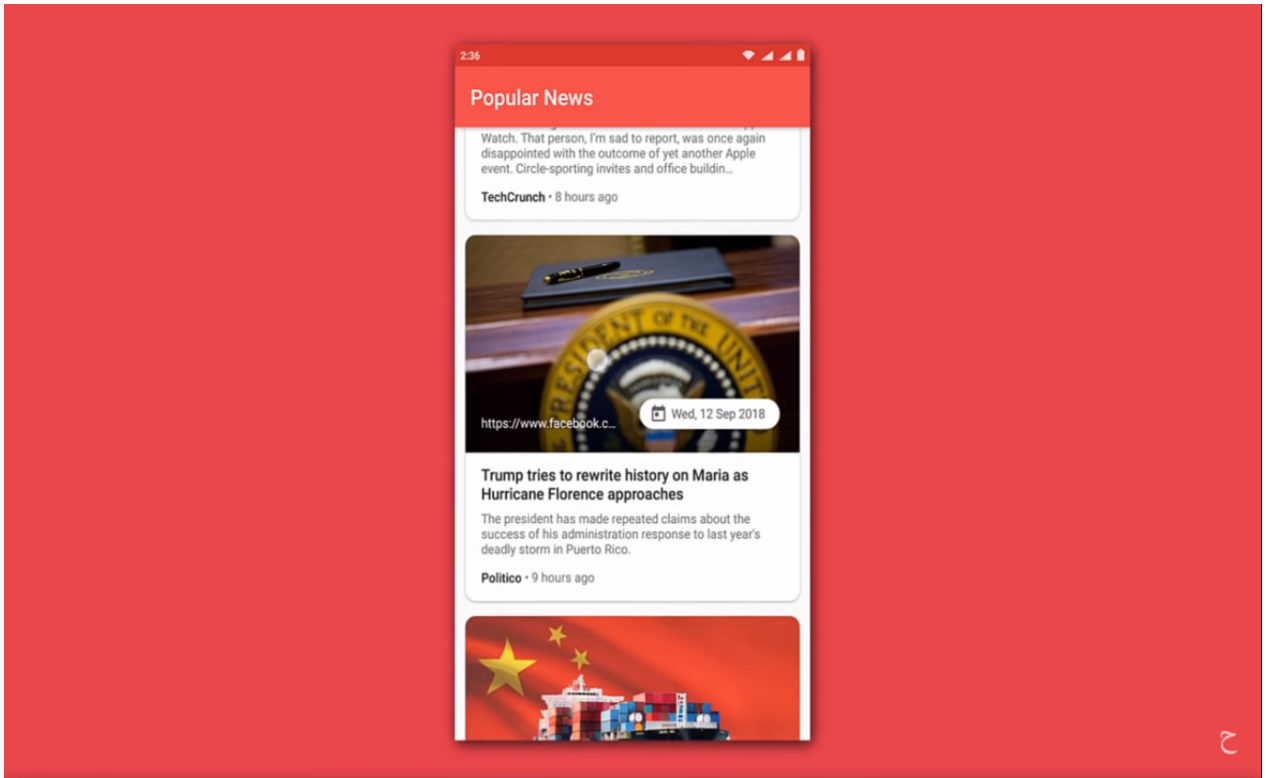
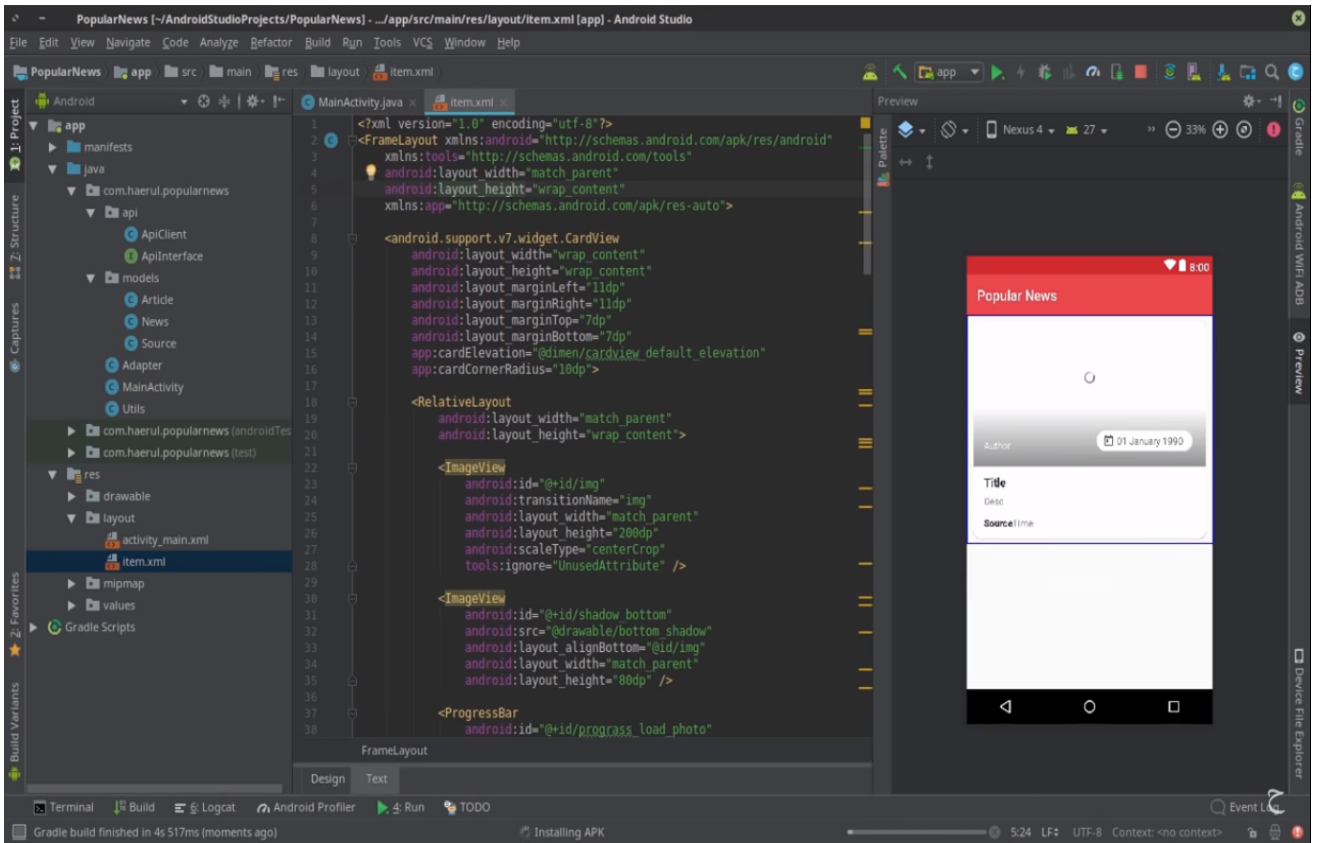
1 package com.example.newsapp.models;
2
3 import com.google.gson.annotations.Expose;
4 import com.google.gson.annotations.SerializedName;
5
6 public class Source {
7
8     @SerializedName("id")
9     @Expose
10    private String id;
11
12    @SerializedName("name")
13    @Expose
14    private String name;
15
16
17    public String getId() {
18        return id;
19    }
20
21    public void setId(String id) {
22        this.id = id;
23    }
24
25    public String getName() {
26        return name;
27    }
28
29    public void setName(String name) {
30        this.name = name;
31    }
32
33

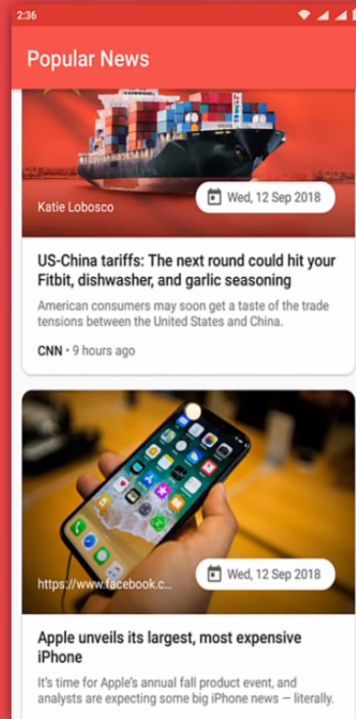
```

Source

Logcat TODO Terminal Build

Gradle build finished in 56 s 138 ms (yesterday 11:44 PM) 15:1 CRLF UTF-8 4 spaces





8. References:

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7. <https://rss.app/>

8. <https://newsapi.org/>