

## **KEEPING UP WITH THE LATEST HEADLINES**

### **ABSTRACT:**

As world's technology is rapidly growing, we have fast connection and network to instantly connect to another person. Day to day use in mobile, tablets and laptop is increasing, most of the people already have these facilities. In this fast and information-oriented world we need to stay updated with every incident and news too. This News app is android mobile application where user have access to latest news from 120+ newspapers from 50+ countries. The main focus of this application is to connect news articles from all around the world and deliver it to user as fast as possible in best visualize way.

### **INTRODUCTION**

Android provides simple application structure and requires Java and Mark-up languages knowledge to work with. Such as, an discrete movement delivers a solitary screen for a user interface and a service whole completes work in the contextual [1]. We can work on different module separately and can combine at the end, we can also add future modules easily afterwards. API (Application Programming Interface) which is an intermediate interface between different applications. It provides automation, immediacy, adaption and personalization. News API provides us the source of news articles from many different sources at one place and updates it. To expand the sources old fashioned Admin panel can be used where writers will fill the gap of API. In 2014, a design language has been created by google named Material Design which is based on "cards" uses grind based layouts, responsive animation, padding and depth effects like shadow to create an responsive, attractive and easy user interface. With the use of different libraries and material design it is possible to use attractive UI. There is a login signup screen. On the dashboard of the app, there will be 3 buttons. There will be a button for publishing your own news, for seeing the general news, and for seeing the news published in the app. In general news, this will fetch news from API and will show it in the app. This app will show the news category-wise. There are a lot of categories.

- The users can publish their own news or articles in the app itself very easily.
- He can also add photos to their articles to make them look more attractive.
- He can also see the articles of other people.

Native news apps are expensive and difficult to maintain. Native Publishers like BBC News or NY Times uses their own writers to manage articles and manage it. Many native newspaper are divided because of this which causes in lack of resources from one side. Android structure provides great capability with frameworks, libraries and APIs, with the help of it we can provide better user experience and combine this sources at one place while maintaining

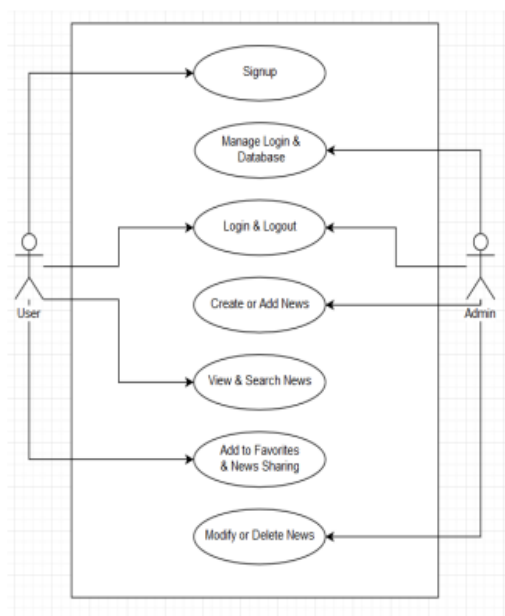
integrity of its owner. “Newsapi” provides API that returns JSON (JavaScript Object Notation) metadata for headlines and articles live all around the world at any time [2]. In this app we will be using this API for our better experience. Even after using this API it is possible that we can’t reach maximum output of resources for that we can use Admin panel where admin or writers can add news of their own, manage and delete it. This contain will have separate database and access bar which will be labelled as “local news”. A module can be implemented where user will have different local news based on his location.

### Scope

1. There is the main screen in this app.
2. Login and sign up are required in the app.
3. Users can see the real news with real-time updates.
4. The app will show category-wise news.
5. Auto update news because it fetch news from API
6. Users can see the news according to their interests.
7. Users can publish their own articles.
8. Users can add images to their articles.
9. Users can see the articles published by other users.

### SYSTEM MODEL

#### Use Case Diagram:



Use Case Diagrams referred as behaviour diagram which describes the commutation between actors or participations and set of actions. This is set of actions or use cases will be enclosed by system boundary and can also have relation with each other. Division among tupelos will be based on the information gain computed for each attribute.

## MODULES

### User Interface:

One of the factors in successful news app development is visualization of news and its feature with user. For the development of an android app material design is very useful and provides smooth experience with custom layout, views and animations. For this news app user should be able to select from different categories, countries and newspaper. Short News as list view with header, little description and image before showing full article can be helpful to user to determine what type of news they are looking for. View Holder can be used for this list view for better and fast experience. Library like Picasso can be used for better image handling. This User interface will be connected to API and Admin Panel database which will give full article in form of web view of that article. Because of this structure the integrity of writer of that article will not be in harm.

### API:

News API has been used for collecting different news sources at one spot. On sending request it will give response in JSON format which contains source id, title, description, image URL, article URL, author, time etc. We need to handle and parse this JSON into string format which is our required format.

### Admin Panel:

This module of app controls the User and Writers logins from database. Writers can add news, update and delete from its database as per required. Writers will only has access to admin panel while Main Admin will has access to database as well. Main Admin can add Users, Writers, and News. He can also approve, update and delete it. Using this approach we can create network in local areas connect by writers and local admins which will provide news at local level and we can also implement location feature which will update local news of different location or city.

## AVAILABLE FEATURES

### Global Support:

Different type of newspaper will be available from all around the world in different languages with this user will be able to get news from all around the world. Short News: News will be displayed in short format with title, image and little description in list view. It will help

user to access required news faster. Search Option: User will be able to search from not only one source but many different sources available within API. Favourites / Offline Reading: News can be added as favourites which will automatically will be saved for offline reading. Sharing: User will be able to share news easily on social media.

CODE:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".WebActivity">

    <!-- webview to display web pages
         as part of the activity -->
    <WebView
        android:id="@+id/webview"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>

</LinearLayout>

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.webkit.WebView;

public class WebActivity extends AppCompatActivity {
    // setting the TAG for debugging purposes
    private static String TAG="WebActivity";

    // declaring the webview
    private WebView myWebView;

    // declaring the url string variable
    private String url;
```

@Override

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_web);  
  
    // assigning the views to id's  
    myWebView = (WebView) findViewById(R.id.webview);  
  
    Intent intent = getIntent();  
  
    // checking if there is an intent  
    if(intent!=null){  
        // retrieving the url in the intent  
        url = intent.getStringExtra("url_key");  
  
        // loading and displaying a  
        // web page in the activity  
        myWebView.loadUrl(url);  
    }  
  
}
```

@Override

```
protected void onRestart() {  
    super.onRestart();  
    finish();  
}  
}
```

<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout

xmlns:android="<http://schemas.android.com/apk/res/android>"

xmlns:app="<http://schemas.android.com/apk/res-auto>"

xmlns:tools="<http://schemas.android.com/tools>"

```
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">
```

```
<!-- A RecyclerView to efficiently
      display a list of articles -->
<androidx.recyclerview.widget.RecyclerView
    android:id="@+id/recyclerview_id"
    android:layout_width="match_parent"
    android:layout_height="match_parent">
</androidx.recyclerview.widget.RecyclerView>
```

```
<!-- loading spinner to be displayed
      while the library fetches news -->
<ProgressBar
    android:id="@+id/progressbar_id"
    android:layout_width="wrap_content"
    android:indeterminateTint="#0F9D58"
    android:layout_centerHorizontal="true"
    android:layout_centerVertical="true"
    android:layout_height="wrap_content">
</ProgressBar>
```

```
</RelativeLayout>
```

### **NewsArticle.java**

```
public class NewsArticle {
```

```
    // the properties/attributes
    // of the ArticleModel
    String author;
    String title;
    String description;
    String url;
```

```
String urlToImage;
String publishedAt;
String content;

// ArticleModel empty constructor
public NewsArticle() {
}

// get method : returns the name of the author
public String getAuthor() {
    return author;
}

// set method : sets the author
public void setAuthor(String author) {
    this.author = author;
}

// get method : returns the title of the article
public String getTitle() {
    return title;
}

// set method : sets the title
public void setTitle(String title) {
    this.title = title;
}

// get method : returns the description of the article
public String getDescription() {
    return description;
}

// set method : sets the description
```



```
public void setDescription(String description) {  
    this.description = description;  
}
```

// get method : returns url of the article

```
public String getUrl() {  
    return url;  
}
```

// set method : sets the url of the article

```
public void setUrl(String url) {  
    this.url = url;  
}
```

// get method : returns the urlToImage of the article

```
public String getUrlToImage() {  
    return urlToImage;  
}
```

// set method : sets the UrlToImage

```
public void setUrlToImage(String urlToImage) {  
    this.urlToImage = urlToImage;  
}
```

// get method : returns the date

```
public String getPublishedAt() {  
    return publishedAt;  
}
```

// set method : sets the date

```
public void setPublishedAt(String publishedAt) {  
    this.publishedAt = publishedAt;  
}
```

```
// get method : returns the content of the article
```

```
public String getContent() {  
    return content;  
}
```

```
// set method : sets the title
```

```
public void setContent(String content) {  
    this.content = content;  
}
```

```
}
```

### **ArticleAdapter.java**

```
import android.content.Context;
```

```
import android.content.Intent;
```

```
import android.view.LayoutInflater;
```

```
import android.view.View;
```

```
import android.view.ViewGroup;
```

```
import android.widget.TextView;
```

```
import androidx.annotation.NonNull;
```

```
import androidx.recyclerview.widget.RecyclerView;
```

```
import com.androidnetworking.widget.ANImageView;
```

```
import java.util.ArrayList;
```

```
public class ArticleAdapter extends RecyclerView.Adapter<ArticleAdapter.ViewHolder> {
```

```
    // setting the TAG for debugging purposes
```

```
    private static String TAG="ArticleAdapter";
```

```
    private ArrayList<NewsArticle> mArrayList;
```

```
    private Context mContext;
```

```
    public ArticleAdapter(Context context,ArrayList<NewsArticle> list){
```

```
        // initializing the constructor
```

```
        this.mContext=context;
```

```
        this.mArrayList=list;
```

```
}
```

@NonNull

@Override

```
public ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {  
    // inflating the layout with the article view (R.layout.article_item)  
    View view=LayoutInflater.from(mContext).inflate(R.layout.article_item,parent,false);  
    return new ViewHolder(view);  
}
```

@Override

```
public void onBindViewHolder(@NonNull ViewHolder holder, int position) {  
    // the parameter position is the index of the current article  
    // getting the current article from the ArrayList using the position  
    NewsArticle currentArticle=mArrayList.get(position);  
  
    // setting the text of textViews  
    holder.title.setText(currentArticle.getTitle());  
    holder.description.setText(currentArticle.getDescription());  
  
    // subString(0,10) trims the date to make it short  
    holder.contributordate.setText(currentArticle.getAuthor()+  
        " | "+currentArticle.getPublishedAt().substring(0,10));  
  
    // Loading image from network into  
    // Fast Android Networking View ANImageView  
    holder.image.setDefaultImageResId(R.drawable.ic_launcher_background);  
    holder.image.setErrorImageResId(R.drawable.ic_launcher_foreground);  
    holder.image.setImageUrl(currentArticle.getUrlToImage());  
  
    // setting the content Description on the Image  
    holder.image.setContentDescription(currentArticle.getContent());  
  
    // handling click event of the article  
    holder.itemView.setOnClickListener(new View.OnClickListener() {
```

```

@Override

public void onClick(View view) {
    // an intent to the WebActivity that display web pages
    Intent intent = new Intent(mContext, WebActivity.class);
    intent.setFlags(Intent.FLAG_ACTIVITY_NEW_TASK);
    intent.putExtra("url_key",currentArticle.getUrl());

    // starting an Activity to display the page of the article
    mContext.startActivity(intent);
}

});

}

@Override

public int getItemCount() {
    return mArrayList.size();
}

public class ViewHolder extends RecyclerView.ViewHolder{

    // declaring the views
    private TextView title,description,contributordate;
    private ANImageView image;

    public ViewHolder(@NonNull View itemView) {
        super(itemView);
        // assigning views to their ids
        title=itemView.findViewById(R.id.title_id);
        description=itemView.findViewById(R.id.description_id);
        image=itemView.findViewById(R.id.image_id);
        contributordate=itemView.findViewById(R.id.contributordate_id);
    }
}

```

```
}
```

## **MainActivity.java**

```
import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.ProgressBar;
import com.androidnetworking.AndroidNetworking;
import com.androidnetworking.common.Priority;
import com.androidnetworking.error.ANError;
import com.androidnetworking.interfaces.JSONObjectRequestListener;
import com.jacksonandroidnetworking.JacksonParserFactory;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {

    // TODO : set the API_KEY variable to your api key
    private static String API_KEY="";

    // setting the TAG for debugging purposes
    private static String TAG="MainActivity";

    // declaring the views
    private ProgressBar mProgressBar;
    private RecyclerView mRecyclerView;
```

```

// declaring an ArrayList of articles
private ArrayList<NewsArticle> mArticleList;

private ArticleAdapter mArticleAdapter;

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    // initializing the Fast Android Networking Library
    AndroidNetworking.initialize(getApplicationContext());

    // setting the JacksonParserFactory
    AndroidNetworking.setParserFactory(new JacksonParserFactory());

    // assigning views to their ids
    mProgressBar=(ProgressBar)findViewById(R.id.progressbar_id);
    mRecyclerView=(RecyclerView)findViewById(R.id.recyclerview_id);

    // setting the recyclerview layout manager
    mRecyclerView.setLayoutManager(new LinearLayoutManager(this));

    // initializing the ArrayList of articles
    mArticleList=new ArrayList<>();

    // calling get_news_from_api()
    get_news_from_api();
}

public void get_news_from_api(){
    // clearing the articles list before adding news ones
    mArticleList.clear();
}

```

```

// Making a GET Request using Fast
// Android Networking Library
// the request returns a JSONObject containing
// news articles from the news api
// or it will return an error
AndroidNetworking.get("https://newsapi.org/v2/top-headlines")
    .addQueryParameter("country", "in")
    .addQueryParameter("apiKey", API_KEY)
    .addHeaders("token", "1234")
    .setTag("test")
    .setPriority(Priority.LOW)
    .build()
    .getAsJSONObject(new JSONObjectRequestListener(){
        @Override
        public void onResponse(JSONObject response) {
            // disabling the progress bar
            mProgressBar.setVisibility(View.GONE);

            // handling the response
            try {

                // storing the response in a JSONArray
                JSONArray articles=response.getJSONArray("articles");

                // looping through all the articles
                // to access them individually
                for (int j=0;j<articles.length();j++)
                {
                    // accessing each article object in the JSONArray
                    JSONObject article=articles.getJSONObject(j);

                    // initializing an empty ArticleModel
                    NewsArticle currentArticle=new NewsArticle();

```

```

        // storing values of the article object properties
        String author=article.getString("author");
        String title=article.getString("title");
        String description=article.getString("description");
        String url=article.getString("url");
        String urlToImage=article.getString("urlToImage");
        String publishedAt=article.getString("publishedAt");
        String content=article.getString("content");

        // setting the values of the ArticleModel
        // using the set methods
        currentArticle.setAuthor(author);
        currentArticle.setTitle(title);
        currentArticle.setDescription(description);
        currentArticle.setUrl(url);
        currentArticle.setUrlToImage(urlToImage);
        currentArticle.setPublishedAt(publishedAt);
        currentArticle.setContent(content);

        // adding an article to the articles List
        mArticleList.add(currentArticle);
    }

    // setting the adapter
    mArticleAdapter=new
ArticleAdapter(getApplicationContext(),mArticleList);
    mRecyclerView.setAdapter(mArticleAdapter);

} catch (JSONException e) {
    e.printStackTrace();
    // logging the JSONException LogCat
    Log.d(TAG,"Error : "+e.getMessage());
}

```




```
    }  
    @Override  
    public void onError(ANError error) {  
        // logging the error detail and response to LogCat  
        Log.d(TAG,"Error detail : "+error.getErrorDetail());  
        Log.d(TAG,"Error response : "+error.getResponse());  
    }  
});  
}  
}
```

OUTPUT:

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## GFG | News Atlas



van just south of the Canadian border on Wednesday. Shand was driving and was with two undocumented Indian nationals.


Express News Service | 2022-01-21



**Horoscope Today, 22 January 2022: Check astrological prediction for Aries...**

Horoscope(Old) News: Read your horoscope predictions to know what the stars have in store for you today: Aries Today, you may be busy with kids, you may plan to invest in .


Samir Jain | 2022-01-21



**Did Priyanka Chopra subtly REVEAL truth about 'expecting' with Nick Jona...**

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Saloni Arora | 2022-01-21



**Countdown begins for Supertech towers: Anatomy of an implosion - Hin...**

While there are a few different techniques for demolition, the technique of "implosion" is most used and best suited for demolition of such tall structures in a densely populated area. | Latest News India

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**James Webb Space Telescope: Mirror deployment process completed - The ...**

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Science Desk | 2022-01-21

**Microsoft Surface Pro 8, Pro 7+ India Sale set on 15th February - Techstory**

The Microsoft Surface Pro 8, Pro 7+ India Sale is scheduled for February 15th.

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≡ **The Indian EXPRESS**

Home / World / Two children among Indian family of four found frozen to death near US-Canada border

# Two children among Indian family of four found frozen to death near US-Canada border

By: **Express News Service** | New Delhi, New York, Toronto |

Updated: January 22, 2022 3:45:45 am



Canada/US border, Jan. 19, 2022. (Source: Royal Canadian Mounted Police)

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● According to court documents, a US Border Patrol in North Dakota stopped a passenger van just south of the Canadian border on Wednesday. Shand was driving and was with two undocumented Indian nationals

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SUBTLY REVEAL TRUTH ABOUT 'EXPECTING' WITH NICK JONAS  
LONG BEFORE THE BABY ANNOUNCEMENT?

## Did Priyanka Chopra subtly REVEAL truth about 'expecting' with Nick Jonas long before the baby announcement?

by **Saloni Arora** | Updated on Jan 22, 2022 02:57 AM  
IST | 24.1K





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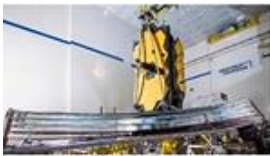
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### towers: Anatomy of an Implosion - Fin...

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IPL 2022: Ahmedabad franchise picked Hardik Pandya as their captain for the new season while also roping in Afghanistan spinner Hardik Pandya and India opener Shubman Gill.

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### IND vs SA: Twitter Reacts As South Africa Secure ODI Series With Victory ...

The South Africans continued their momentum after the Test win and secured the ODI series with one more left to play.

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### Karnataka lifts weekend curfew: Here are the modified Covid-19 guidelines - ...

Chief Minister Basavaraj Bommai took the decision after holding a meeting with members of the Technical Advisory Committee ministers

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≡ **The Indian EXPRESS**

Home / Cities / Bangalore / Karnataka lifts weekend curfew: Here are the modified Covid-19 guidelines

# Karnataka lifts weekend curfew: Here are the modified Covid-19 guidelines

By: **Express News Service** | Bengaluru |

Updated: January 21, 2022 10:28:41 pm



Bommai said that vigil is being maintained on hospitalisation of children.

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*Chief Minister Basavaraj Bommai took the decision after holding a meeting with members of the Technical Advisory Committee, ministers and senior officials.*

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## **CONCLUSIONS**

User was allowed to use this application in his smartphone and screenshots were taken as a result for this study. First User need to Sign Up in order to access the application which provides security for this application. Also predicted user error handling with pop-up messaging was done before this experiment like entering invalid data in fields, not selecting a field before clicking on action button etc. The result will be shown in form of screen shots below.

## **FUTURE WORK**

Location feature with automation can be implemented which means as user move from one city to other local news will change as per it. Offline Reading can be improve will more efficient way on full articles. Data quality check needed. If API can't reach to certain article source it gives null value which can cause problem in JSON parsing.