Final Project – BBC News Reader - Report
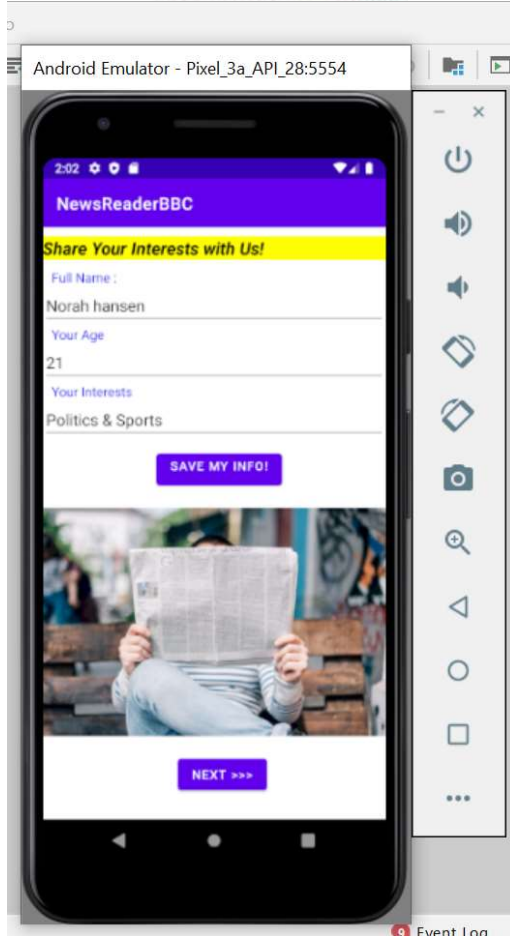
Submitted By:

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Course Name: 21W_CST2335_451 Mobile Graphical Interface Programming

I would like to take you on a guiding tour to check the features of my application, and how each single feature is being implemented by Java in the Android Studio.

The very first page is a page where the user shares his or her data (name, age and interests), these data are stored and retrieved via "shared Preferences". The data is being entered here, it will appear every time the app runs for the same user unless changed. It is also retrieved in the "My Info Page" later in the app.
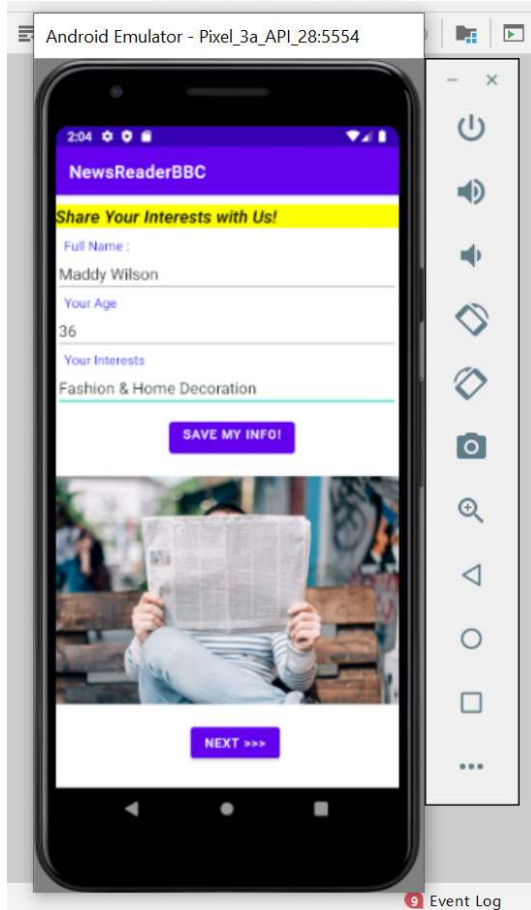
code for storing shared preferences.

```
SharedPreferences.Editor editor = sharedInterestsPreferences.edit();
editor.putString(sharedName, un);
editor.putString(sharedAge, ua);
editor.putString(sharedInterests, ui);
editor.commit();
```

code for retrieving shared preferences.

```
sharedInterestsPreferences = getSharedPreferences(prefSet,Context.MODE_PRIVATE);

    if (sharedInterestsPreferences.contains(sharedName))
    {
        userName.setText(sharedInterestsPreferences.getString(sharedName, ""));
    }
    if (sharedInterestsPreferences.contains(sharedAge))
    {
        age.setText(sharedInterestsPreferences.getString(sharedAge, ""));
    }
    if (sharedInterestsPreferences.contains(sharedInterests))
    {
        interests.setText(sharedInterestsPreferences.getString(sharedInterests,
""));
    }
```

I attempted to change the data here to check later how it is going to be retrieved using shared preferences.

Android Emulator - Pixel_3a_API_28:5554

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NewsReaderBBC

Be the First To Know!

Event Log
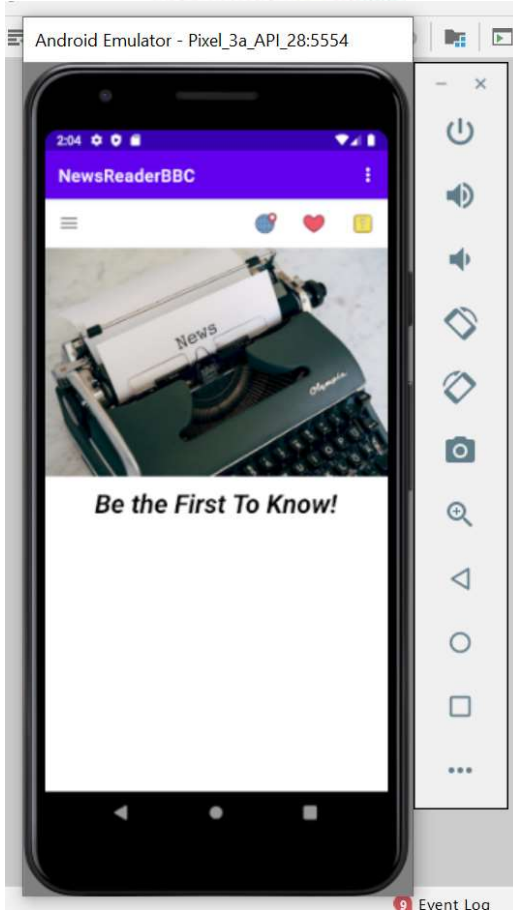
By pressing the "Next>>>" button in the first page of the application, the user is directed to this page where he or she can choose from a toolbar to

1- check latest news and handle favourite articles
2- display favourites list
3- read some helping tips on how to use the app

```java
int id = item.getItemId();


if (id == R.id.choiceone) {
    Toast.makeText(IntroductoryActivity.this, "Check Latest News From BBC!",
Toast.LENGTH_LONG).show();
    Intent intent = new Intent(IntroductoryActivity.this,
HeadLinesActivity.class);
    startActivity(intent);
}
else if (id == R.id.choicetwo) {
    Toast.makeText(IntroductoryActivity.this, "Favourites List!",
Toast.LENGTH_LONG).show();
    Intent intent = new Intent(IntroductoryActivity.this,
MyFavouritesList.class);
    startActivity(intent);
    //return true;
}
else if (id == R.id.choicethree) {
    // Toast.makeText(IntroductoryActivity.this, "Help Option!",
Toast.LENGTH_LONG).show();
    Intent intent = new Intent(IntroductoryActivity.this, HelpActivity.class);
    startActivity(intent);
}
```
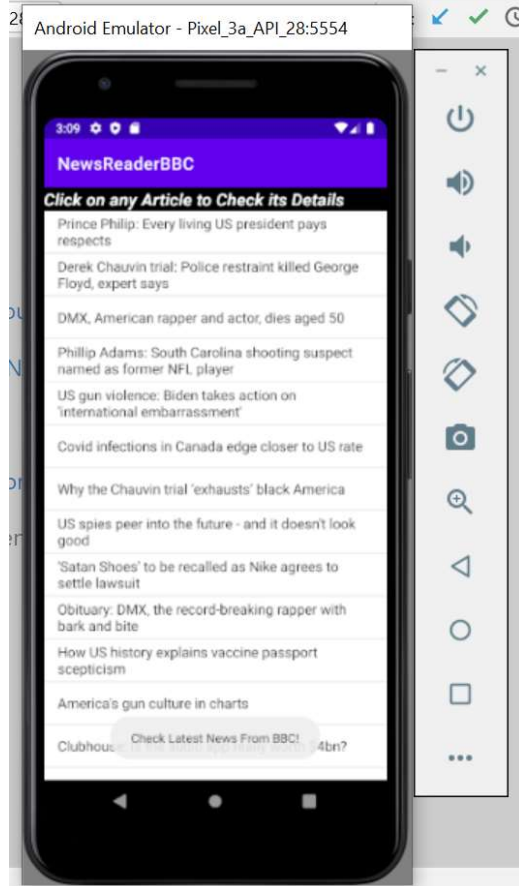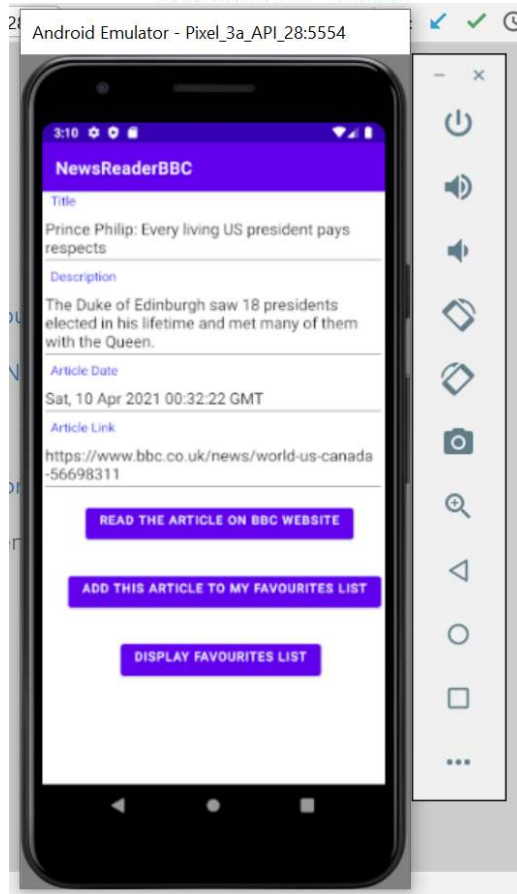
Choosing the first icon of the toolbar directs the user to a list view updated by the most recent news from the BBC RSS newsfeed.

```java
@Override
protected String doInBackground(Integer... integers) {
    try{
        URL rssLink = new
URL("https://feeds.bbci.co.uk/news/world/us_and_canada/rss.xml");
        XmlPullParserFactory factory = XmlPullParserFactory.newInstance();
        factory.setNamespaceAware(false);
        XmlPullParser xpp = factory.newPullParser();
        xpp.setInput(getInputStream(rssLink), "UTF_8");
        boolean foundUnit = false;
        int docIndices = xpp.getEventType();

        while (docIndices != XmlPullParser.END_DOCUMENT)
        {
            if (docIndices == XmlPullParser.START_TAG)
            {
                if (xpp.getName().equalsIgnoreCase("item"))
                {
                    foundUnit = true;
                }
                else if (xpp.getName().equalsIgnoreCase("title"))
                {
                    if (foundUnit)
                    {
                        /** Adding parsed titles to the headlines array
                         */
                        headlines.add(xpp.nextText());
                    }
                }
                else if (xpp.getName().equalsIgnoreCase("link"))
                {
                    if (foundUnit)
                    {
                        /** Adding parsed links to the hyperlinks array
                         */
                        hyperLinks.add(xpp.nextText());
                    }
                }
                else if (xpp.getName().equalsIgnoreCase("pubDate"))
                {
                    if (foundUnit)
```

NewsReaderBBC

Title

Prince Philip: Every living US president pays respects

Description

The Duke of Edinburgh saw 18 presidents elected in his lifetime and met many of them with the Queen.

Article Date

Sat, 10 Apr 2021 00:32:22 GMT

Article Link

https://www.bbc.co.uk/news/world-us-canada -56698311

READ THE ARTICLE ON BBC WEBSITE

ADD THIS ARTICLE TO MY FAVOURITES LIST

DISPLAY FAVOURITES LIST

Clicking on specific article directs the user to the next activity that displays all the details of the chosen article and some options of how to handle favourites list.

```java
Bundle extras = getIntent().getExtras();
if (extras != null) {
    String valueFromHyperlink = extras.getString("urlkey");
    String valueFromHeadline = extras.getString("titlekey");
    String valueFromDates = extras.getString("datekey");
    String valueFromDescription = extras.getString("descriptionkey");
    EditText link_edit = (EditText) findViewById(R.id.text_link);
    link_edit.setText(valueFromHyperlink);
    EditText title_edit = (EditText) findViewById(R.id.text_title);
    title_edit.setText(valueFromHeadline);
    EditText date_edit = (EditText) findViewById(R.id.text_date);
    date_edit.setText(valueFromDates);
    EditText description_edit = (EditText) findViewById(R.id.text_description);
    description_edit.setText(valueFromDescription);
}
```

These details where passed by the previous activity (HeadLinesActivity) using the intent arrangement along with the put Extra.

```java
Intent i = new Intent(HeadLinesActivity.this, FavouritesControlActivity.class);

    /** Passing the chosen article details to the next activity
     */
i.putExtra("urlkey",newLink.toString());
i.putExtra("titlekey",singleArticleTitle);
    i.putExtra("datekey",singleArticleDate);
    i.putExtra("descriptionkey",singleArticleDescription);
    startActivity(i);
```
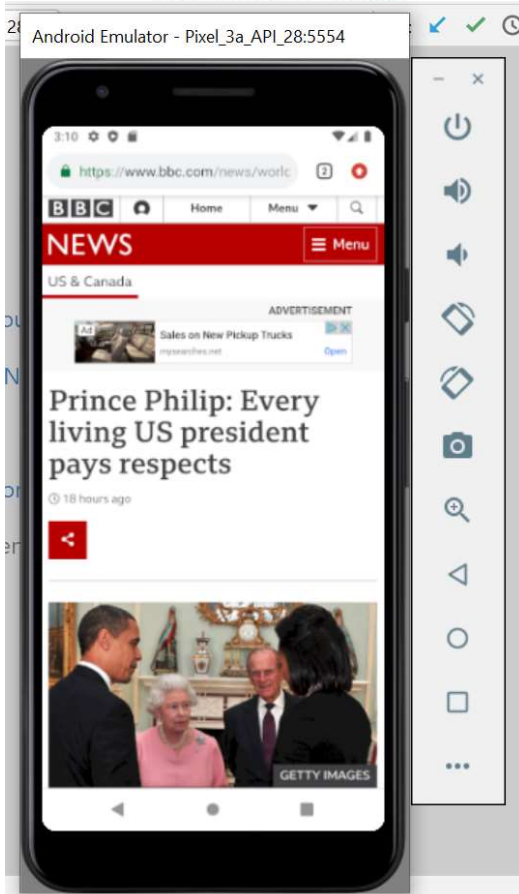
If the user chooses to press the button that says "read the article on BBC website", the application directs him to the URL opened on BBC website.

```
Bundle extras = getIntent().getExtras();
if (extras != null) {
    String value = extras.getString("urlkey");
    Intent i = new Intent(Intent.ACTION_VIEW);
    i.setData(Uri.parse(value));
    startActivity(i);
}
```
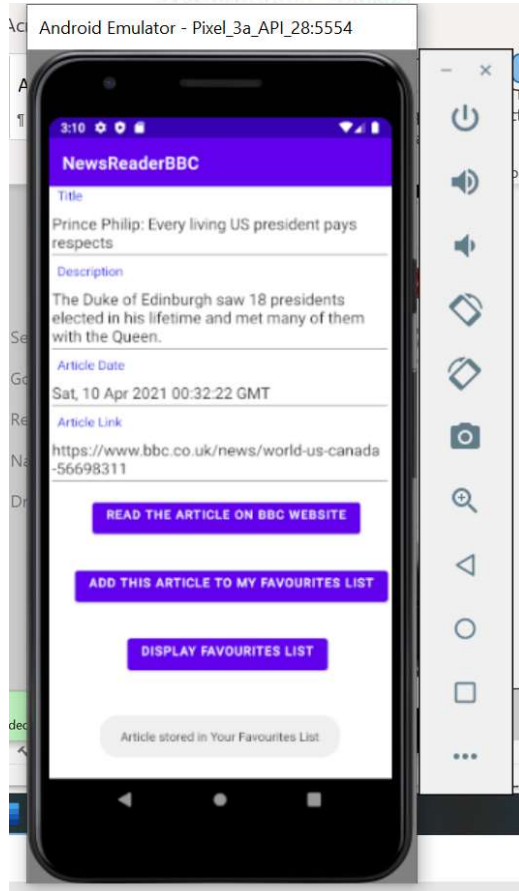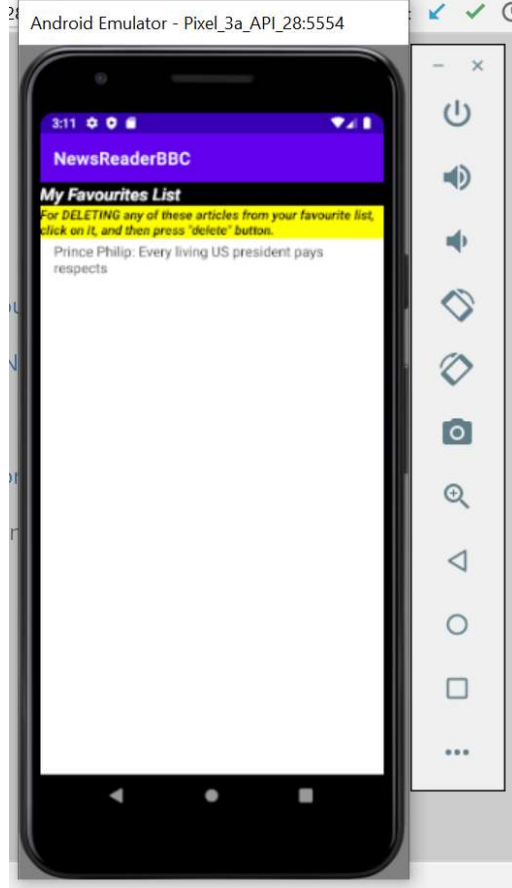
If the user presses the button that says "Add this article to favourites list", the application will add the article to the favourite list and display a toast to confirm the storage procedure achieved.

```java
/** this method is invoked by the add article to favourite list button.
 */
public void addToFavourites(View v) {
    Bundle extras = getIntent().getExtras();
    if (extras != null) {
        String value = extras.getString("titlekey");

        /** the method itself calls the addData method which is embedded in the
MyDBhelper
         * java class that adds data to the sqlite database .
         */
        boolean enterMSG = dataBase.addData(value);
        if(enterMSG==true){
            Toast.makeText(this, "Article stored in Your Favourites List",
Toast.LENGTH_LONG).show();
        }else{
            Toast.makeText(this, "Error", Toast.LENGTH_LONG).show();
        }
    }
```
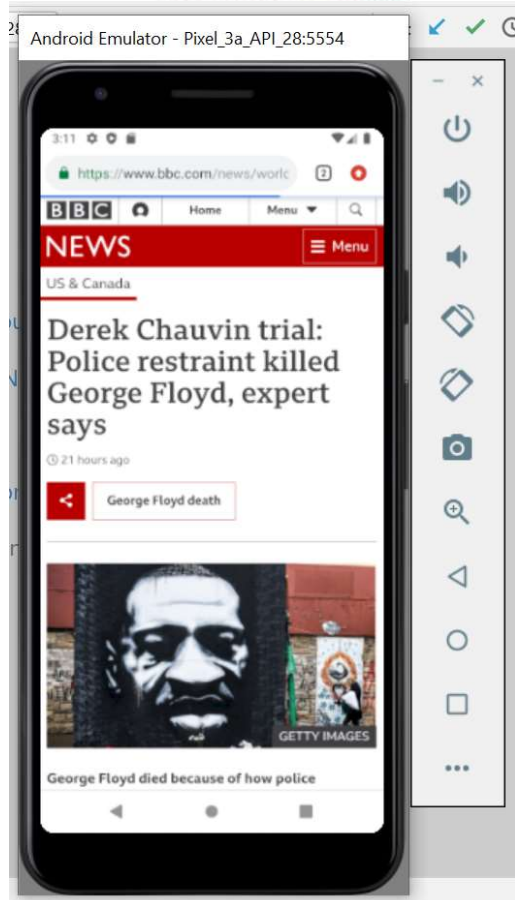
BC - Android Studio

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NewsReaderBBC

My Favourites List

For DELETING any of these articles from your favourite list, click on it, and then press 'delete' button.

Prince Philip: Every living US president pays respects

If the user presses the "Display favourites List" button , the favourite list is being displayed.

```java
/** this method loads data from the sqlite
 * database and updates the favourites listview accordingly.
 */
public void displayFav(View view) {
    Bundle extras = getIntent().getExtras();
    if (extras != null) {
        String valueFromFavChoice = extras.getString("titlekey");
        Intent i = new Intent(FavouritesControlActivity.this,
FavouritesDisplayList.class);
        i.putExtra("titlekey", valueFromFavChoice);
        startActivity(i);
    }
```
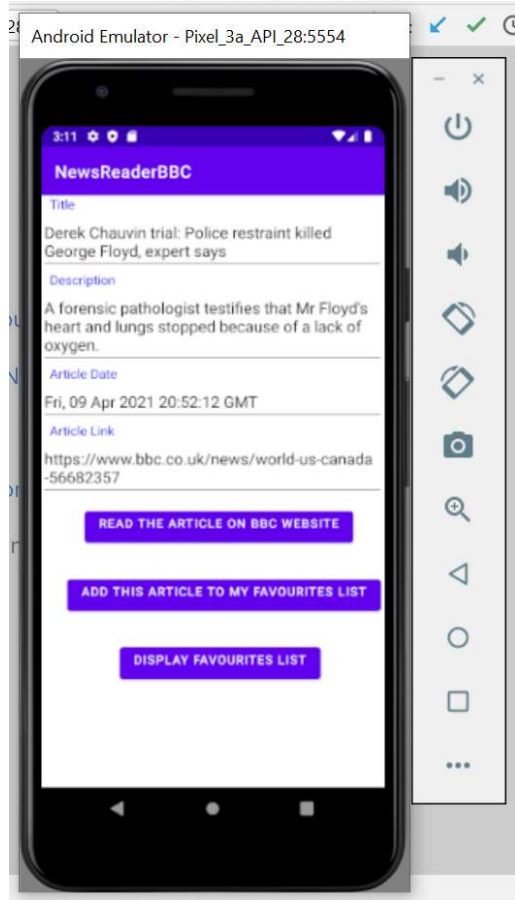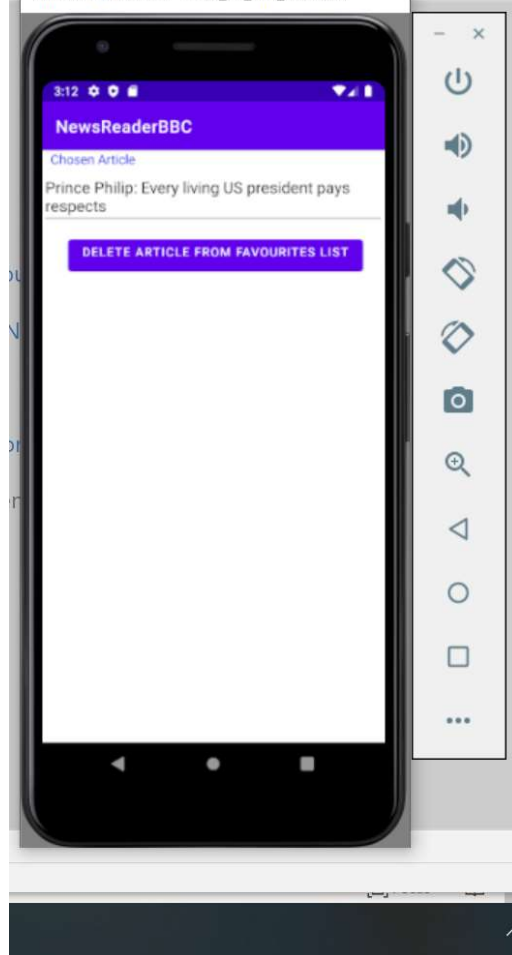
I chose a second article to add to the favourites list.

Reading second article on BBC website.

NewsReaderBBC

My Favourites List

For DELETING any of these articles from your favourite list, click on it, and then press "delete" button.

Prince Philip: Every living US president pays respects

Derek Chauvin trial: Police restraint killed George Floyd, expert says
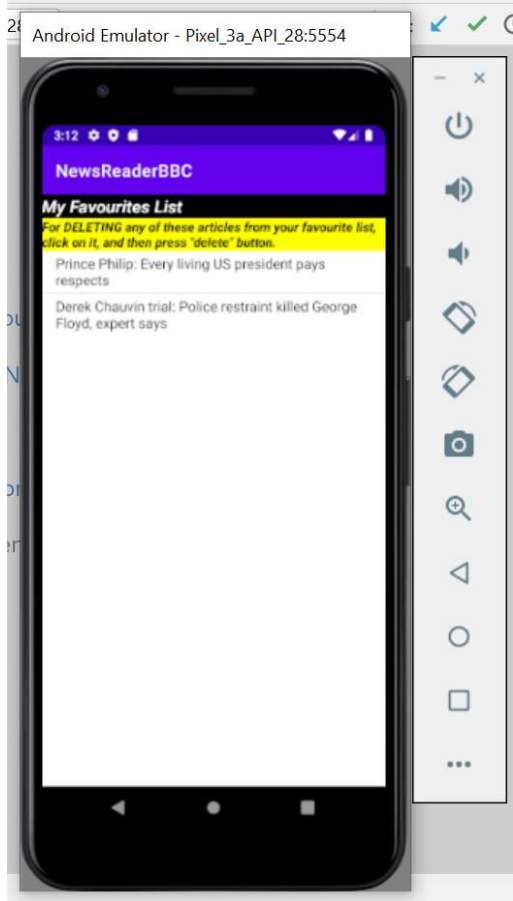
To delete any article from the favourites list, the user has to click the article first.

If the user then presses the delete button, the application will delete the article from the favourite articles sqlite database.

```java
/** the deleteArticle method is being invoked by the press of the delete button.
 */
public void deleteArticle(View view) {
    Bundle extras = getIntent().getExtras();
    String valueFromHeadline = extras.getString("ChosenTitle");
    /** this method consequently calls the other deleteName method that is embedded on the
     * MyDBhelper java class.
     */
    dataBase.deleteName(valueFromHeadline);
/** toast to assure deletion.
 */
    Toast.makeText(deleteItemActivity.this, "Article removed from your Favourites!",
Toast.LENGTH_LONG).show();

    }
```
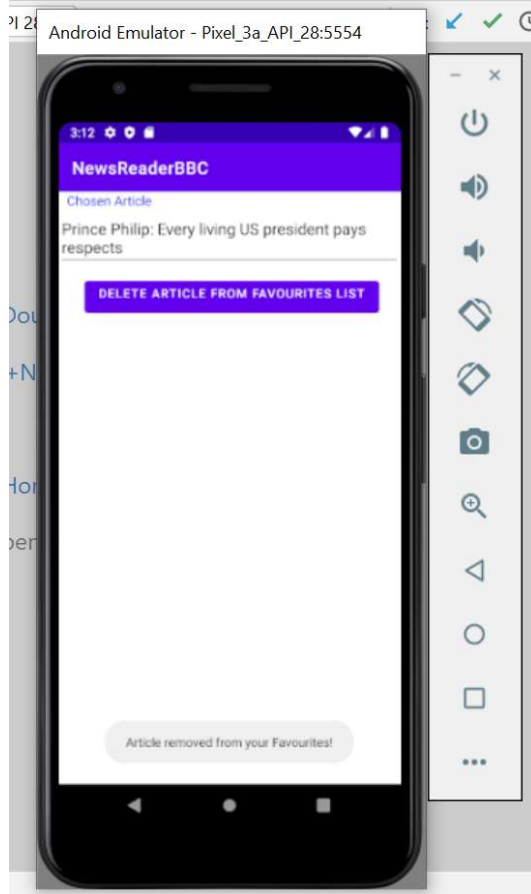
Toast confirming item is deleted.
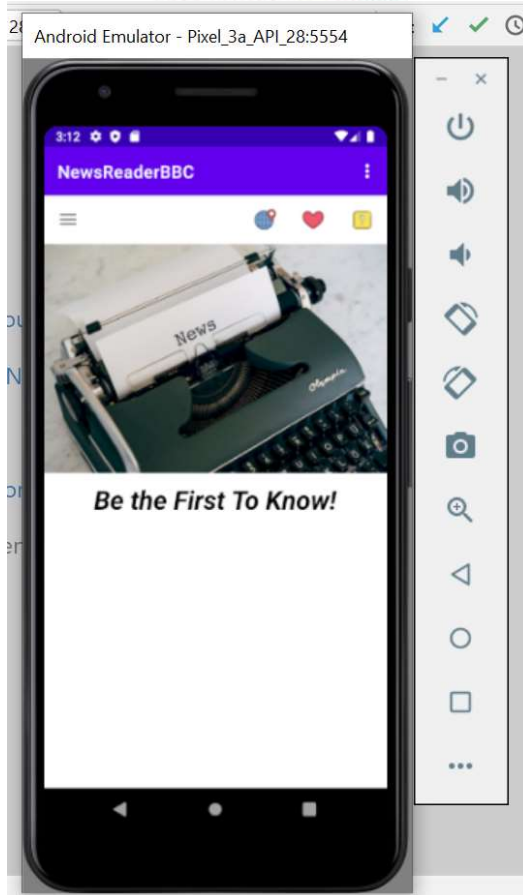
Back to the page with navigation, the toolbar has a second icon with the shape of red heart, pressing that icon directs the application to display the favourites list.

```java
else if (id == R.id.choicetwo) {
    Toast.makeText(IntroductoryActivity.this, "Favourites List!",
Toast.LENGTH_LONG).show();
    Intent intent = new Intent(IntroductoryActivity.this, MyFavouritesList.class);
    startActivity(intent);

}
```
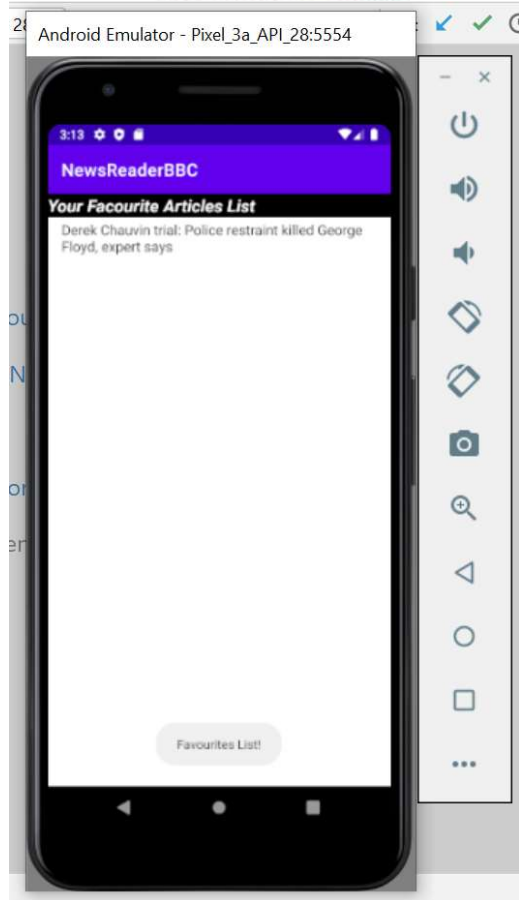
Favourites list displayed.
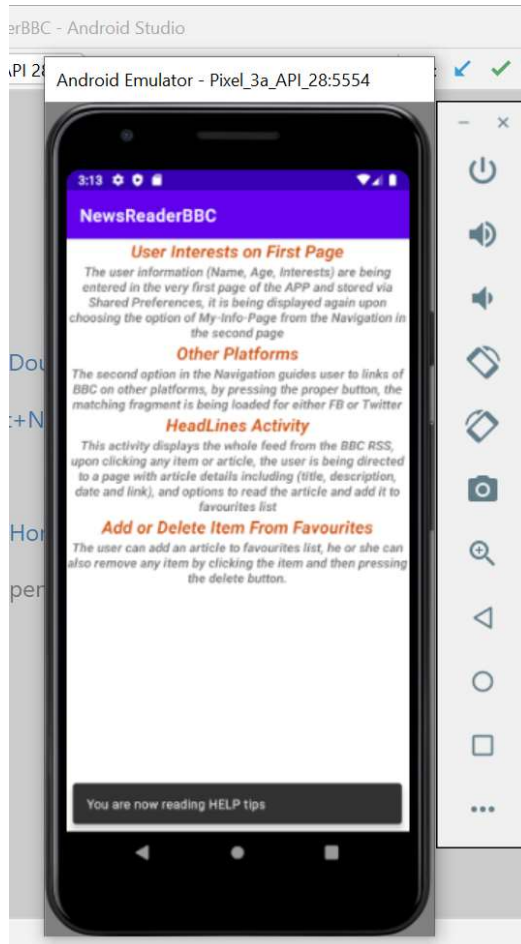
The third icon in the toolbar (yellow icon with question mark) directs user to activity with some helping tips mentioned on how to use the application.

A snackbar is used here.

```java
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_help);
    /** Snackbar is implemented here
     */
    Snackbar snackbar = Snackbar.make(findViewById(android.R.id.content), "You are now
reading HELP tips", Snackbar.LENGTH_LONG);
    snackbar.show();
}
```
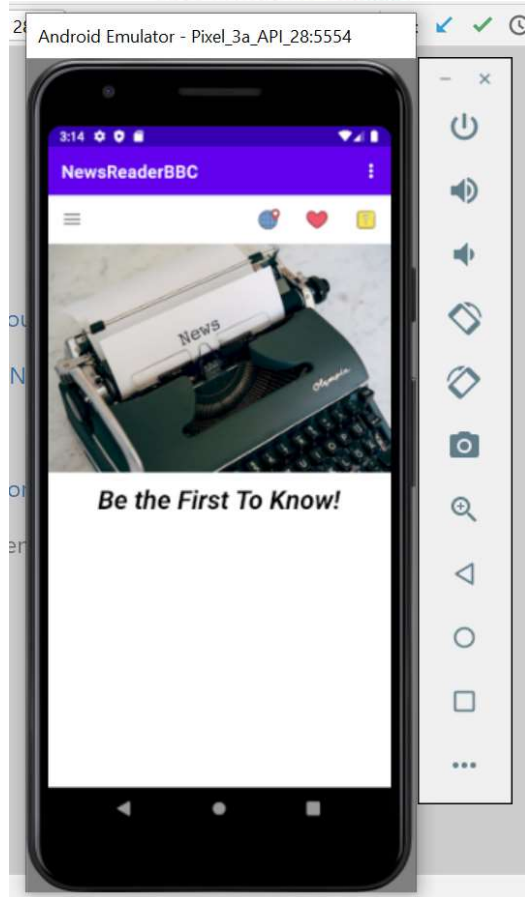
Back to navigation page.
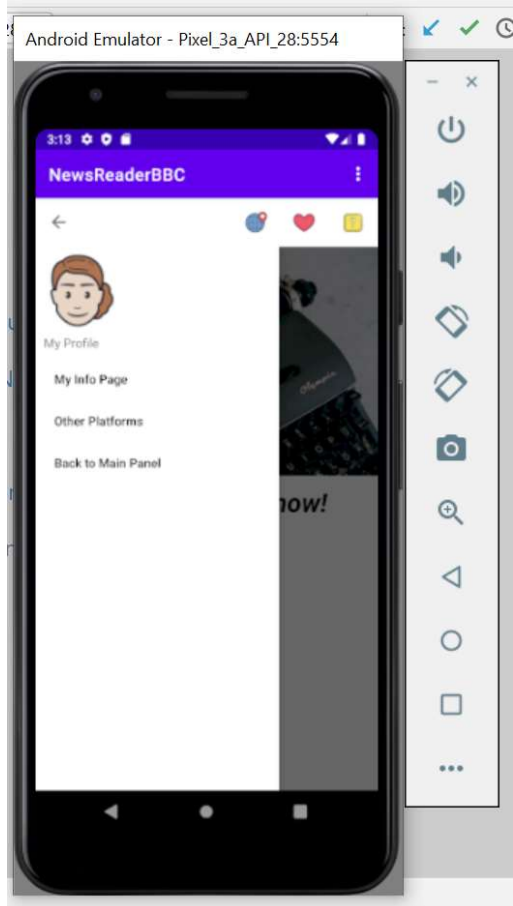
First navigation option is the "my info page"
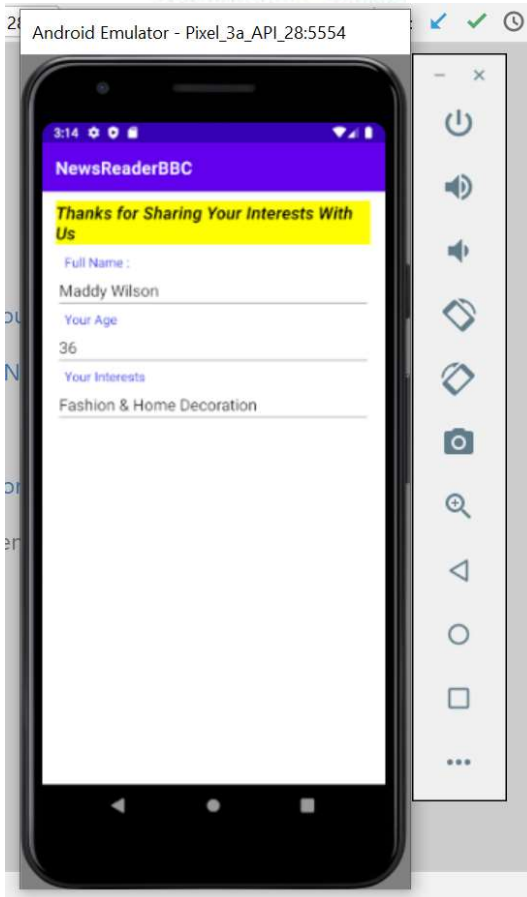
In this page, data that was entered in the very first page is retrieved using shared preferences.

```java
userName = (EditText) findViewById(R.id.text_name);
age = (EditText) findViewById(R.id.text_age);
interests = (EditText) findViewById(R.id.text_interest);
sharedInterestsPreferences = getSharedPreferences(prefSet,
        Context.MODE_PRIVATE);

if (sharedInterestsPreferences.contains(sharedName)) {
    userName.setText(sharedInterestsPreferences.getString(sharedName, ""));
}
if (sharedInterestsPreferences.contains(sharedAge)) {
    age.setText(sharedInterestsPreferences.getString(sharedAge, ""));
}
if (sharedInterestsPreferences.contains(sharedInterests)) {
    interests.setText(sharedInterestsPreferences.getString(sharedInterests, ""));
}
```
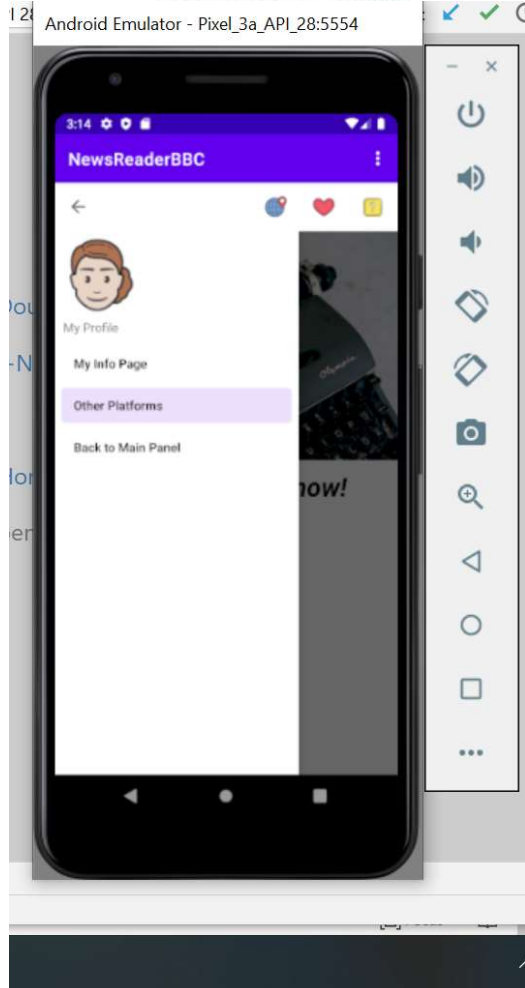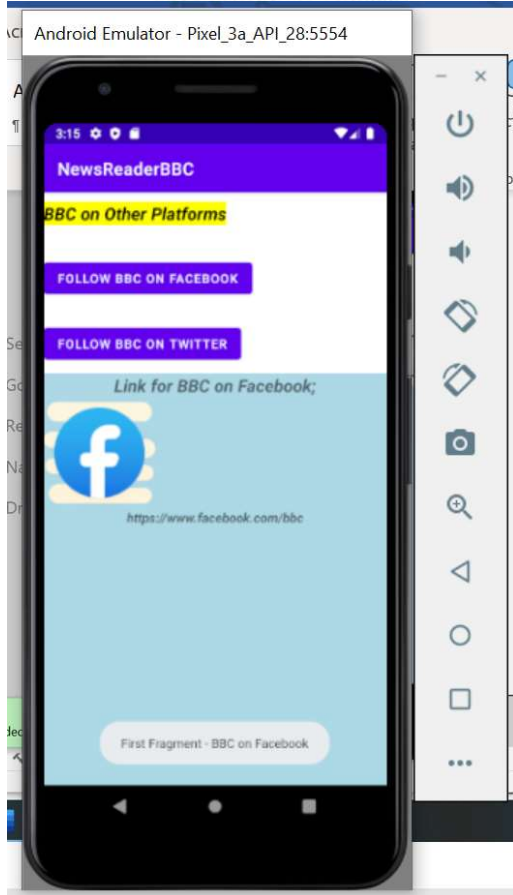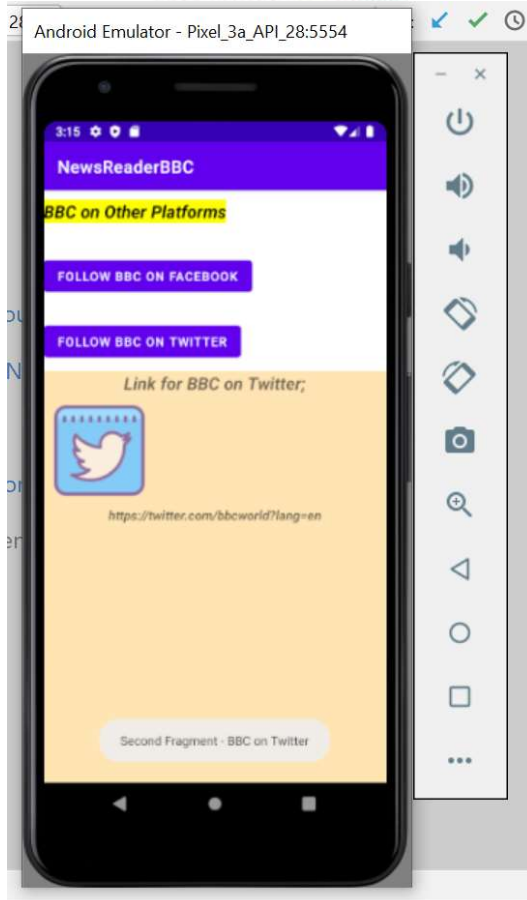
Second navigation option is "other platforms".
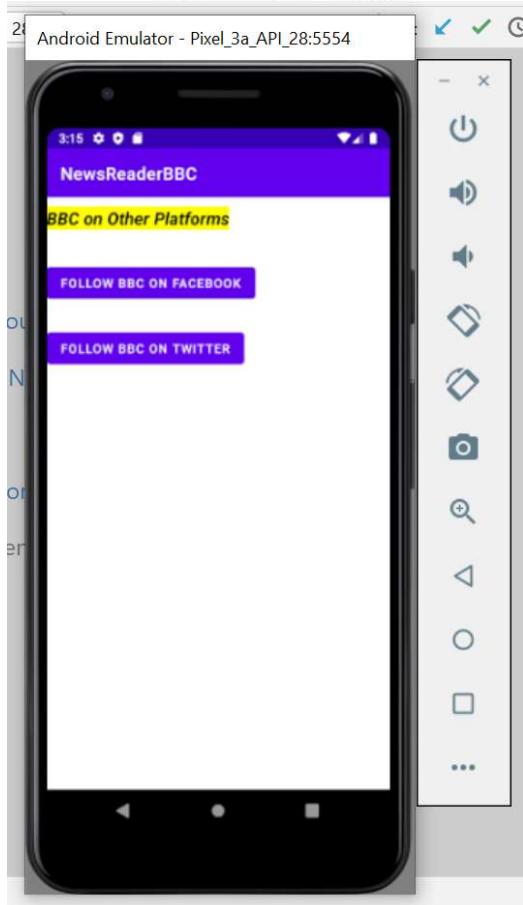
This activity has two buttons each displays link for following up with BBC on different platforms, by updating a frame layout with the specific fragment that is chosen.

Facebook fragment is chosen to be loaded.

```java
/** Method for loading Facebook Fragment using Fragment Manager.
 */
private void loadFragmentfb(Fragment fragment) {
    FragmentManager fm = getFragmentManager();
    FragmentTransaction fragmentTransaction = fm.beginTransaction();
    fragmentTransaction.replace(R.id.frameLayout, fragment);
    fragmentTransaction.commit();
}
```

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BBC on Other Platforms

FOLLOW BBC ON FACEBOOK

FOLLOW BBC ON TWITTER

Link for BBC on Twitter;

https://twitter.com/bbcworld?lang=en

Second Fragment - BBC on Twitter

Twitter fragment is chosen to be loaded.

```java
private void loadFragmenttw(Fragment fragment) {
    FragmentManager fm = getFragmentManager();
    FragmentTransaction fragmentTransaction = fm.beginTransaction();
    fragmentTransaction.replace(R.id.frameLayout, fragment);
    fragmentTransaction.commit();
}
```