

MOBILE APPLICATION DEVELOPMENT

ITE(1016)

Project Title : Web Browser

FINAL PROJECT REVIEW 1,2,3 COMBINED

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PROJECT REVIEW 1 & 2

Combined

Drive link

<https://drive.google.com/file/d/15-ShpjGdgXho0gRy31uazC27NDMbFfKT/view>

Abstract

Module Specification

Wireframes

Code Execution 40%

Abstract :

We have made a web browser application which allows user to surf on variety of sites, fetch and view the content present on the web.

It also allows user to download content present on the web.

Here we have tried to make similar kind of app using java.

In our browser app, user can simply search for the URL in the search bar and can visit the site of his/her choice.

Also, on the home page, we have used Linear Layout to display the icon of some of the popular sites in a card View form so that user don't have to type the whole URL in the search bar.

He just have to tap on the card and then, he will be redirected to the corresponding site.

Module Specification:

Splash Screen

We made a splash screen which shows icon and text-Your Browser when the app starts.

Login Module

We have taken two user inputs username and password for login and checked with data inside firebase database.

Signup Module

We have taken three user inputs for signup – username, full name and password and stored in firebase database.

User Profile Module

We have shown basic details that user entered during signup by retrieving them from firebase database when the user logs in.

Main Browser Module

Main Browser having basic homepage made using card view and circle image view and url search options.

What we used from the course?

1. Module 2: Technologies

HTML5 and CSS concepts are used in this app and the code for it can be seen in the xml file.

2. Module 3: Introduction to android programming

Java is the main programming language used in developing this application. And the android studio software has been used to do so.

3. Module 4: Android software development

Here, we have effectively used java language so as to accommodate every features of this app.

4. Module 5: Android Framework

In this app we have created intent, an activity, circle image view(for circular view of icons), card view(for creating card for specific function) , list view, splash screen, and firebase(database to store the login details of users).

Java classes/Activity are:

Sign Up Activity

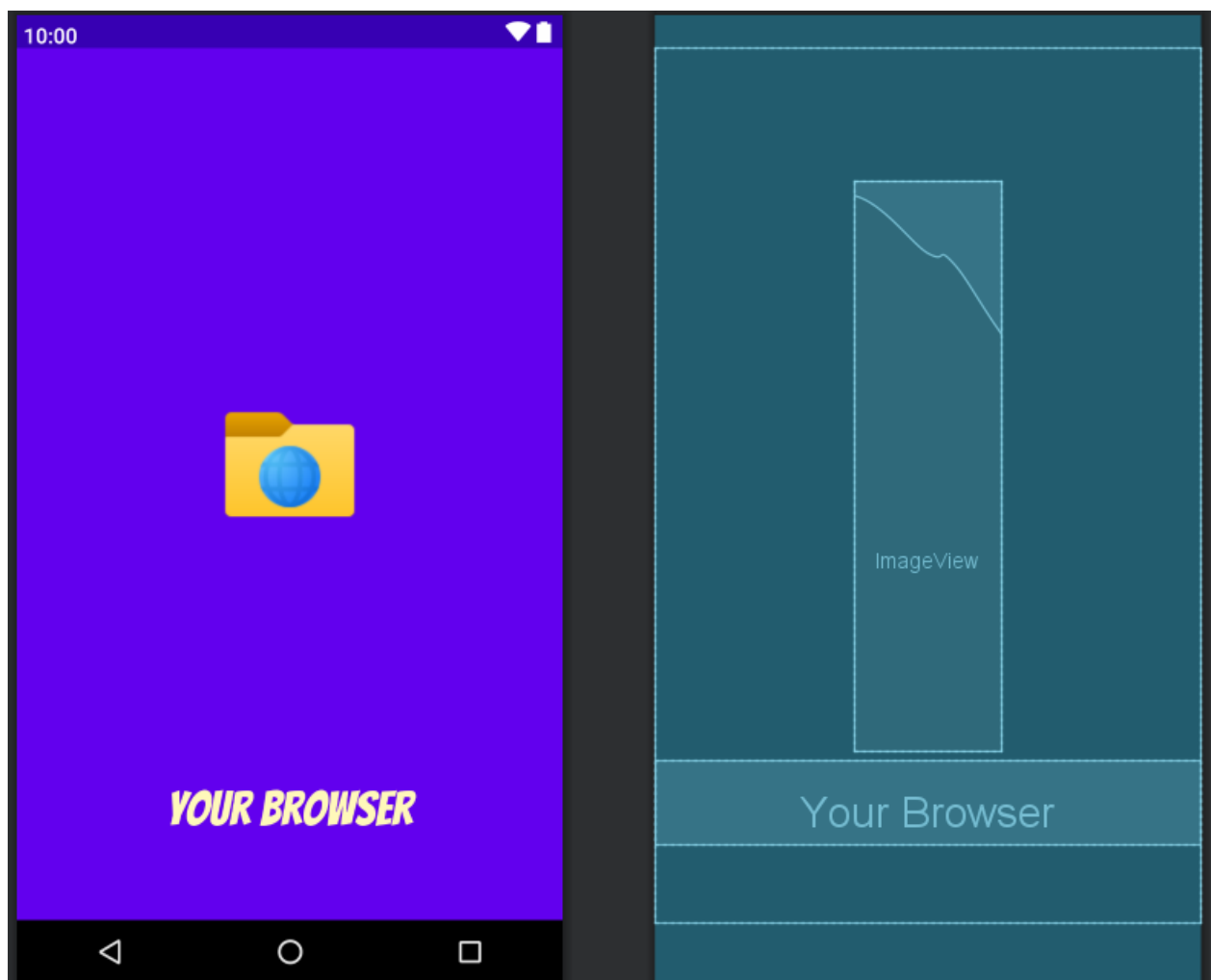
Login Activity

Main_Activity

Browse_Activity

Wireframes :

Wireframe for MainActivity(Splash Screen) :



Wireframe for SignUp Activity:

The image displays a wireframe for a mobile application's sign-up activity, presented in two parts: a visual representation of the app and a detailed view of its UI components.

Visual Representation (Left):

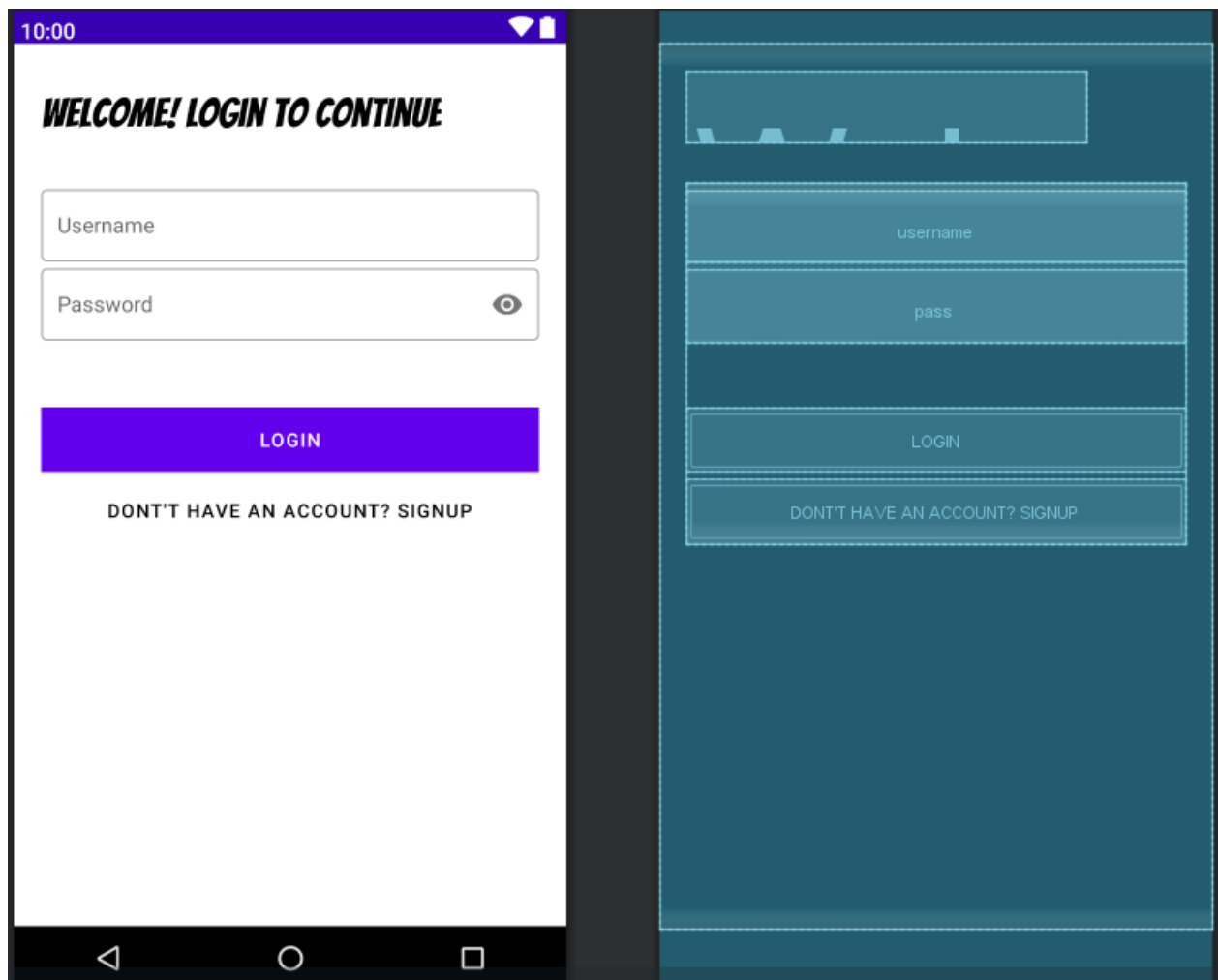
- Status Bar:** Shows the time 10:00 and battery status.
- Header:** A bold, italicized text **WELCOME! SIGN UP TO CONTINUE**.
- Form Fields:**
 - Enter Full Name:** A text input field.
 - Enter Username:** A text input field with a character count of 0/15.
 - Enter Password:** A text input field with a toggle icon (an eye) and a character count of 0.
- Buttons:**
 - SIGNUP:** A prominent blue button.
 - ALREADY HAVING AN ACCOUNT? LOGIN:** A smaller text link below the sign-up button.
- Navigation Bar:** Standard Android navigation icons (back, home, recent apps).

UI Component View (Right):

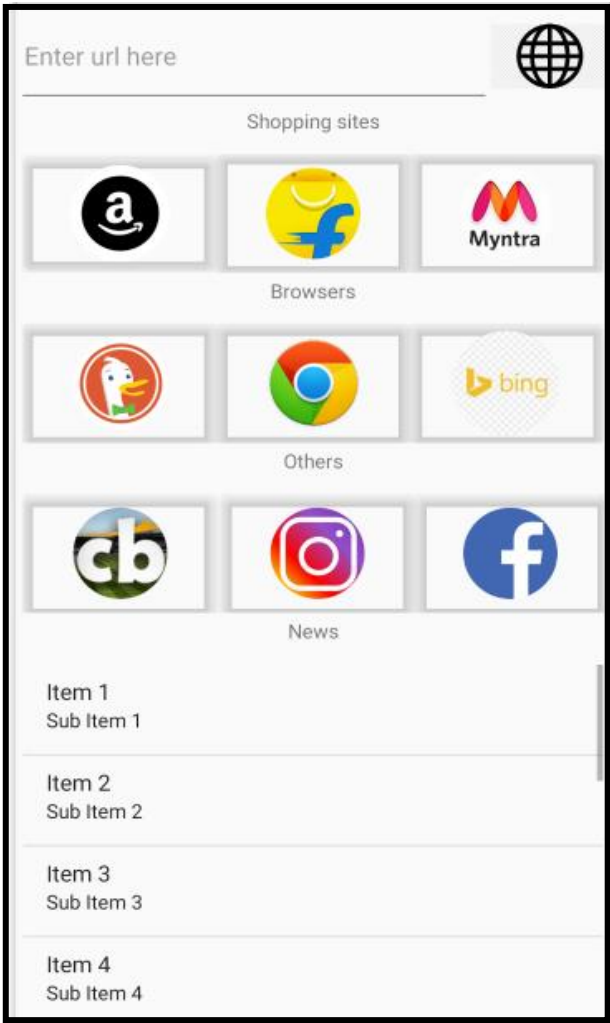
This view shows the underlying UI components for the sign-up activity, organized into a vertical stack:

- Header:** A blue header bar with a white title bar.
- Form Fields:** Three `TextInputEditText` components for the full name, username, and password.
- Buttons:** A blue `SIGNUP` button and a smaller `ALREADY HAVING AN ACCOUNT? LOGIN` button.

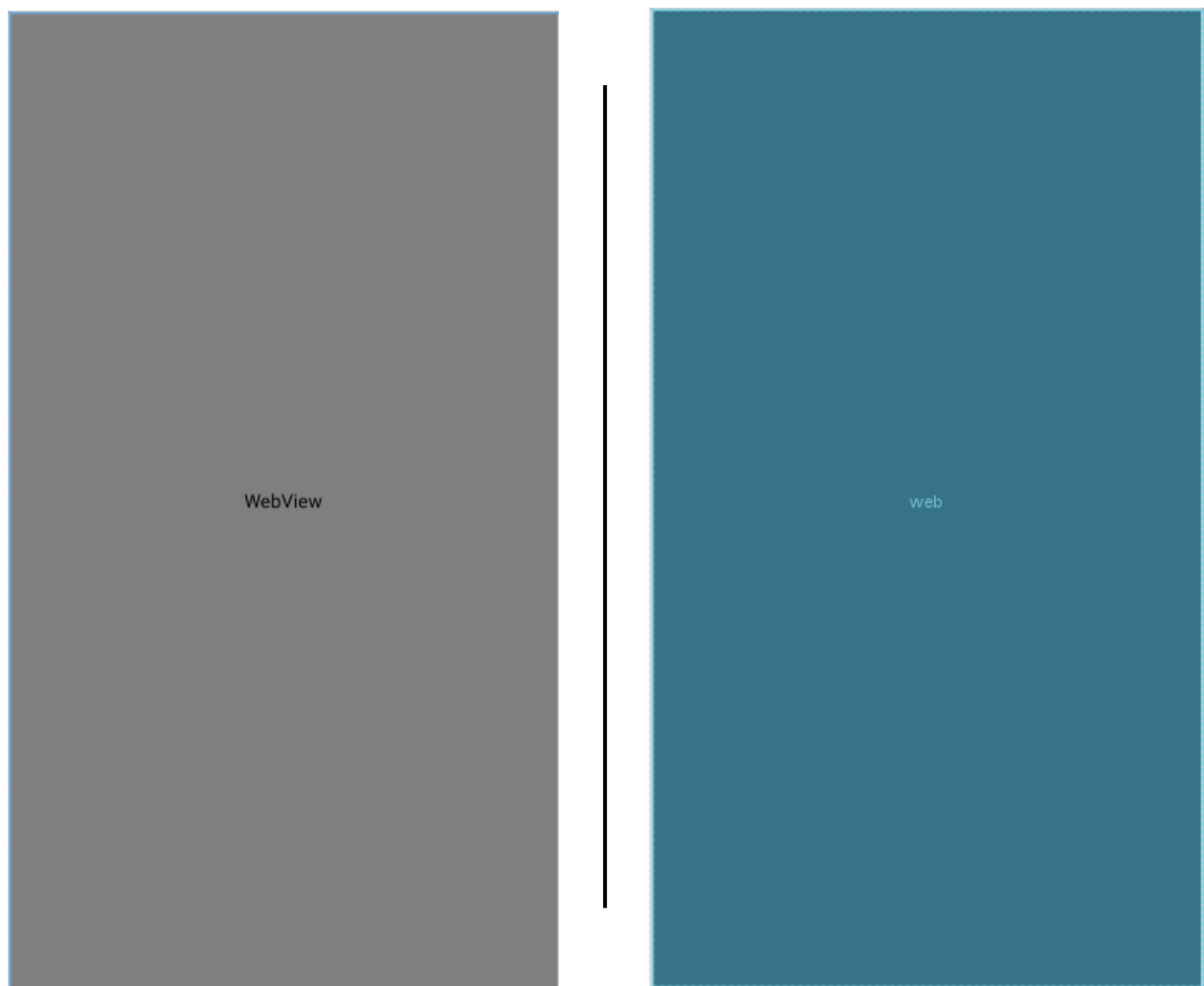
Wireframe for Login Activity:



Wireframe for Main Browse Activity:



Wireframe for browse activity :



As the browse activity has the web page to open in the whole screen, it has no other elements in the wireframe.

Project Execution for review 2 (40%):

Code :

MainBrowse.java file

```
package com.example.browser;

import androidx.appcompat.app.AppCompatActivity;
import de.hdodenhof.circleimageview.CircleImageView;
import android.content.Intent;
import android.os.AsyncTask;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.EditText;
import android.widget.ListView;
import android.widget.Toast;

import org.xmlpull.v1.XmlPullParser;
import org.xmlpull.v1.XmlPullParserException;
import org.xmlpull.v1.XmlPullParserFactory;

import java.io.IOException;
import java.io.InputStream;
import java.net.URL;
import java.nio.charset.MalformedInputException;
import java.util.ArrayList;
```

```

public class MainBrowse extends AppCompatActivity {

    EditText url;
    String str;
    ListView mylist;
    public ArrayList<String> titles;
    ArrayList<String> links;

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

        titles = new ArrayList<String>();
        links = new ArrayList<String>();
        mylist = (ListView) findViewById(R.id.list);

        mylist.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> adapterView, View
view, int i, long l) {
                str = links.get(i);
                Intent intent = new Intent(MainBrowse.this,
browse.class);

                intent.putExtra("str", str);
                startActivity(intent);
                setContentView(R.layout.activity_browse);
            }
        });
        //new ProcessInBack().execute();
    }
}

```

```
public void browse(View view) {

    url = findViewById(R.id.url);

    if (view.getId() == R.id.chrom) {
        str = "https://www.google.com/";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();

    } else if (view.getId() == R.id.cb) {
        str = "https://www.cricbuzz.com/";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();

    } else if (view.getId() == R.id.search) {
        str = url.getText().toString();

        if (str.startsWith("www")) {
            str = "https://" + str;
        }
        if (str.isEmpty()) {
            Toast.makeText(this, "Nothing is written as url",
Toast.LENGTH_LONG).show();
        }

        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else if (view.getId() == R.id.duck) {
        str = "https://www.duckduckgo.com";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else if (view.getId() == R.id.insta) {
        str = "https://www.instagram.com";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();

    } else if (view.getId() == R.id.amazon) {
        str = "https://www.amazon.com";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    }
}
```

```

        } else if (view.getId() == R.id.fb) {
            str = "https://www.facebook.com";
            Toast.makeText(this, str, Toast.LENGTH_LONG).show();
        } else if (view.getId() == R.id.bing) {
            str = "https://www.bing.com";
            Toast.makeText(this, str, Toast.LENGTH_LONG).show();
        } else if (view.getId() == R.id.myntra) {
            str = "https://www.myntra.com";
            Toast.makeText(this, str, Toast.LENGTH_LONG).show();
        } else if (view.getId() == R.id.flip) {
            str = "https://www.flipkart.com";
            Toast.makeText(this, str, Toast.LENGTH_LONG).show();
        } else {
            Toast.makeText(this, "something is wrong",
Toast.LENGTH_LONG).show();
        }
        Intent intent = new Intent(this, browse.class);
        intent.putExtra("str", str);
        startActivity(intent);
        setContentView(R.layout.activity_browse);
    }

}

/*
// getting feeds
public InputStream getInputStream(URL url) {
    try {
        return url.openConnection().getInputStream();
    } catch (IOException e) {
        return null;
    }
}
}

```

```

public class ProcessInBack extends AsyncTask<Integer, Void,
Exception> {

    Exception exp = null;

    @Override
    protected void onPreExecute() {
        super.onPreExecute();
    }

    @Override
    protected Exception doInBackground(Integer... integers) {

        try {
            URL url = new
URL("http://feeds.news24.com/articles/news24/TopStories/rss");

            XmlPullParserFactory factory =
XmlPullParserFactory.newInstance();
            factory.setNamespaceAware(false);
            XmlPullParser xpp = factory.newPullParser();
            xpp.setInput(getInputStream(url), "UTF_8");
            boolean insideitem = false;
            int event = xpp.getEventType();
            while (event != XmlPullParser.END_DOCUMENT) {
                if (event == XmlPullParser.START_TAG) {
                    if (xpp.getName().equalsIgnoreCase("item"))
{
                        insideitem = true;
                    } else if
(xpp.getName().equalsIgnoreCase("title")) {
                        if (insideitem) {
                            titles.add(xpp.nextText());
                        }
                    }
                }
            }
        }
    }
}

```

```

        } else if
(xpp.getName().equalsIgnoreCase("link")) {
            if (insideitem) {
                links.add(xpp.nextText());
            }
        } else if (event == XmlPullParser.END_TAG
&& xpp.getName().equalsIgnoreCase("item")) {
            insideitem = false;
        }
    }
}
event = xpp.next();
}
} catch (MalformedInputException e) {
    exp = e;
} catch (XmlPullParserException e) {
    exp = e;
} catch (IOException e) {
    exp = e;
}
}

return exp;
}

```

```

@Override
protected void onPostExecute(Exception s) {
    super.onPostExecute(s);
    ArrayAdapter<String> adapter = new
ArrayAdapter<>(MainBrowse.this, android.R.layout.simple_list_item_1,
titles);
    mylist.setAdapter(adapter);
}
}

```



```
}  
  
}  
  
*/
```

Activity_main_browse.xml file

```
<?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=".MainBrowse"  
    android:weightSum="10"  
    android:orientation="vertical">  
  
    <LinearLayout  
        android:layout_width="match_parent"  
        android:layout_height="0dp"  
        android:layout_weight="1"  
        android:weightSum="5"  
        android:orientation="horizontal">  
  
        <EditText  
            android:layout_width="0dp"  
            android:layout_height="match_parent"  
            android:id="@+id/url"  
            android:paddingHorizontal="5dp"  
            android:hint="Enter url here"  
            android:layout_weight="4"  
        />
```

```
<ImageView
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:id="@+id/search"
    android:onClick="browse"
    android:src="@drawable/log"/>
```

```
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="5"
    android:weightSum="12"
    android:orientation="vertical">
```

```
<androidx.appcompat.widget.AppCompatTextView
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:text="Shopping sites"
    android:layout_weight="1"
    android:textAlignment="center"
```

```
/>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="3"
    android:orientation="horizontal"
    android:weightSum="3"
    android:padding="3dp">
```

```
<ie.miao.yichong.diycardview.view.DIYRoundedCardView
    android:id="@+id/amazon"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_margin="3dp"
    android:layout_weight="1"
    app:cardElevation="5dp"
    android:onClick="browse"
    app:cardCornerRadius="5dp">
```

```
<de.hdodenhof.circleimageview.CircleImageView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_margin="5dp"
    android:src="@drawable/amazon"
/>
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
<ie.miao.yichong.diycardview.view.DIYRoundedCardView
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:onClick="browse"
    android:id="@+id/flip"
    app:cardCornerRadius="5dp"
    app:cardElevation="5dp">
```

```
<de.hdodenhof.circleimageview.CircleImageView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_margin="5dp"
    android:padding="5dp"
```

```
        android:src="@drawable/flip" />
```

```
</ie.miao.yichong.diyocardview.view.DIYRoundedCardView>
```

```
<ie.miao.yichong.diyocardview.view.DIYRoundedCardView
```

```
    android:layout_width="0dp"
```

```
    android:layout_height="match_parent"
```

```
    android:layout_weight="1"
```

```
    android:layout_marginHorizontal="3dp"
```

```
    android:id="@+id/mynta"
```

```
    android:onClick="browse"
```

```
    app:cardCornerRadius="5dp"
```

```
    app:cardElevation="5dp">
```

```
    <de.hdodenhof.circleimageview.CircleImageView
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="match_parent"
```

```
        android:layout_margin="5dp"
```

```
        android:padding="5dp"
```

```
        android:src="@drawable/mynta"
```

```
    />
```

```
</ie.miao.yichong.diyocardview.view.DIYRoundedCardView>
```

```
</LinearLayout>
```

```
<androidx.appcompat.widget.AppCompatTextView
```

```
    android:layout_width="match_parent"
```

```
        android:layout_height="0dp"
        android:layout_weight="1"
        android:text="Browsers"
        android:textAlignment="center"

    />
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="3"
    android:orientation="horizontal"
    android:weightSum="3"
    android:padding="3dp">
```

```
<ie.miao.yichong.diycardview.view.DIYRoundedCardView
    android:id="@+id/duck"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_marginHorizontal="3dp"

    android:layout_weight="1"
    android:onClick="browse"

    app:cardCornerRadius="5dp"
    app:cardElevation="5dp">
```

```
<de.hdodenhof.circleimageview.CircleImageView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_margin="5dp"
```

```
        android:padding="5dp"
        android:src="@drawable/duck"
```

```
    />
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
<ie.miao.yichong.diycardview.view.DIYRoundedCardView
    android:id="@+id/chrom"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:onClick="browse"
    app:cardCornerRadius="5dp"
    app:cardElevation="5dp">
```

```
    <de.hdodenhof.circleimageview.CircleImageView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_margin="5dp"
        android:padding="5dp"
        android:layout_marginHorizontal="3dp"

        android:src="@drawable/chrom"
```

```
    />
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
<ie.miao.yichong.diycardview.view.DIYRoundedCardView
    android:id="@+id/bing"
    android:layout_width="0dp"
```

```
android:layout_height="match_parent"
android:layout_weight="1"
android:onClick="browse"
android:layout_marginHorizontal="3dp"
```

```
app:cardCornerRadius="5dp"
app:cardElevation="5dp">
```

```
<de.hdodenhof.circleimageview.CircleImageView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_margin="5dp"
    android:src="@drawable/bing"
```

```
/>
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
</LinearLayout>
```

```
<androidx.appcompat.widget.AppCompatTextView
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:text="Others"
    android:textAlignment="center"
```

```
/>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="3"
    android:orientation="horizontal"
    android:padding="3dp"
    android:weightSum="3"
    >
```

```
<ie.miao.yichong.diycardview.view.DIYRoundedCardView
    android:id="@+id/cb"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_marginHorizontal="3dp"
    android:layout_weight="1"
    android:onClick="browse"

    app:cardCornerRadius="5dp"
    app:cardElevation="5dp">
```

```
<de.hdodenhof.circleimageview.CircleImageView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_margin="5dp"
    android:padding="5dp"
    android:src="@drawable/cb"
```

```
/>
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```



```
<ie.miao.yichong.diyocardview.view.DIYRoundedCardView
    android:id="@+id/insta"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:onClick="browse"
    android:layout_marginHorizontal="3dp"

    app:cardCornerRadius="5dp"
    app:cardElevation="5dp">
```

```
<de.hdodenhof.circleimageview.CircleImageView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_margin="5dp"
    android:padding="5dp"
    android:src="@drawable/insta"
```

```
/>
```

```
</ie.miao.yichong.diyocardview.view.DIYRoundedCardView>
```

```
<ie.miao.yichong.diyocardview.view.DIYRoundedCardView
    android:id="@+id/fb"
    android:layout_width="0dp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:onClick="browse"

    app:cardCornerRadius="5dp"
    app:cardElevation="5dp">
```

```
<de.hdodenhof.circleimageview.CircleImageView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
```

```
        android:layout_margin="5dp"
        android:padding="5dp"
        android:src="@drawable/fbpng"
```

```
        android:layout_marginHorizontal="3dp"
```

```
    />
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
</LinearLayout>
```

```
</LinearLayout>
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="0dp"
```

```
    android:layout_weight="4"
```

```
    android:orientation="vertical"
```

```
>
```

```
<androidx.appcompat.widget.AppCompatTextView
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="30dp"
```

```
    android:text="News"
```

```
    android:textAlignment="center"
```

```
    />
```

```
<ListView
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="match_parent"
```

```
    android:id="@+id/list"
```

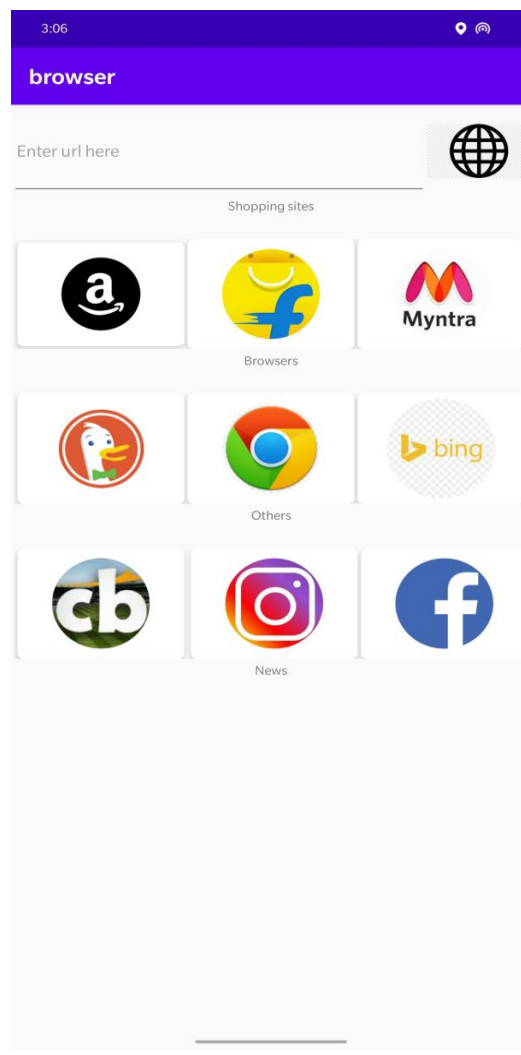
```
    android:layout_margin="4dp"/>
```

```
</LinearLayout>
```

</LinearLayout>

OUTPUT

Homepage for the app (MainBrowse Activity) :



Browse.java file

```
package com.example.browser;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.webkit.WebSettings;
import android.webkit.WebView;
import android.webkit.WebViewClient;

public class browse extends AppCompatActivity {

    WebView web;
    String s;

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

        s = getIntent().getExtras().getString("str");

        web = (WebView) findViewById(R.id.web);
        WebSettings webSettings = web.getSettings();
        webSettings.setJavaScriptEnabled(true);
        web.loadUrl(s);
        web.setWebViewClient(new WebViewClient());
    }
}
```

```

    }

    @Override
    public void onBackPressed() {

        if (web.canGoBack()) {
            web.goBack();
        }
        else{
            Intent i = new Intent(this,MainBrowse.class);
            startActivity(i);
            setContentView(R.layout.activity_main_browse);

        }
    }
}

```

Browse.xml file

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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=".browse">

```

```

    <WebView
        android:id="@+id/web"

```

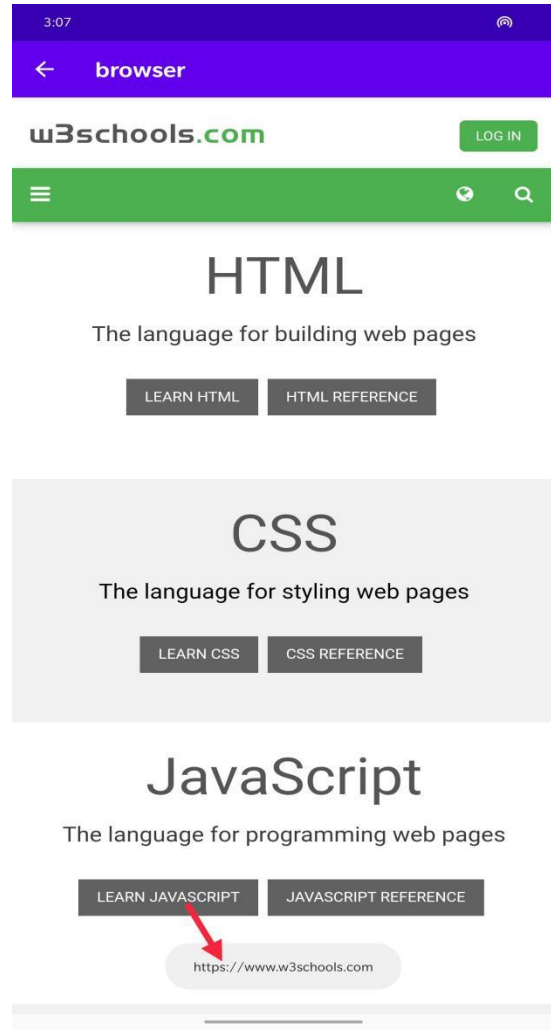
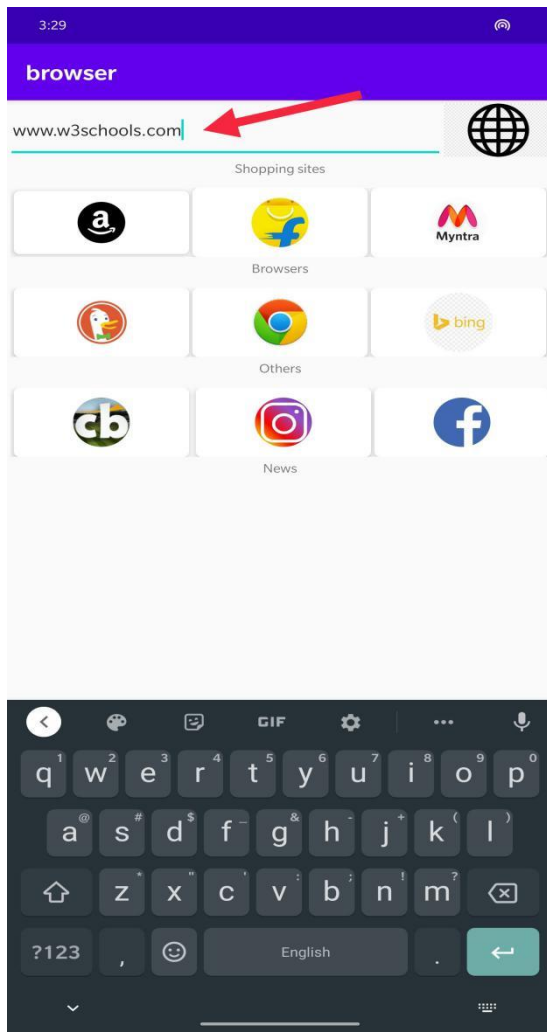
```
android:layout_width="match_parent"  
android:layout_height="match_parent"  
app:layout_constraintBottom_toBottomOf="parent"  
tools:layout_editor_absoluteX="16dp">
```

```
</WebView>
```

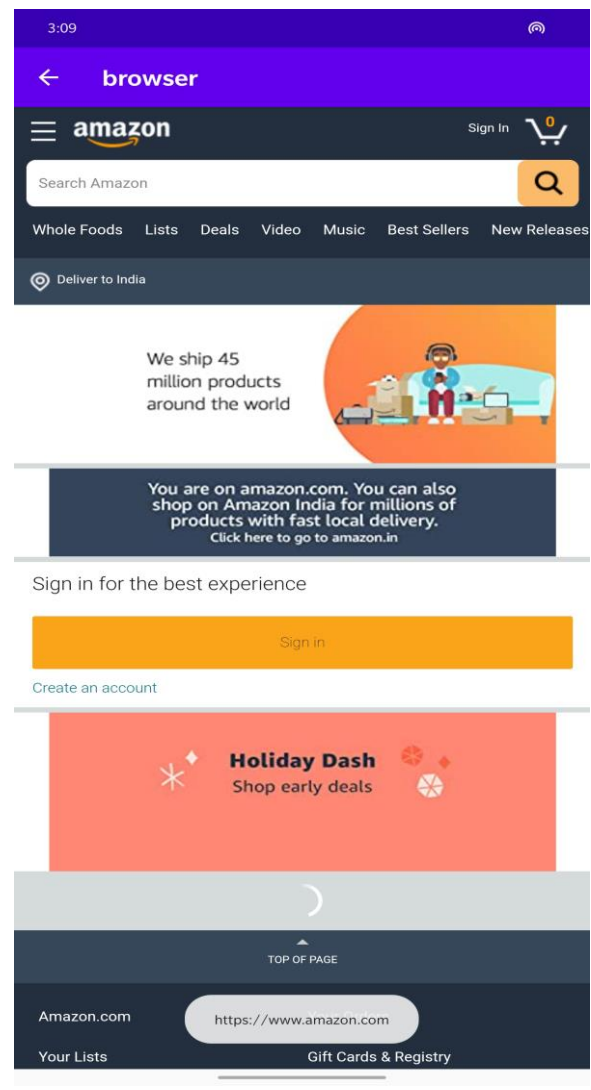
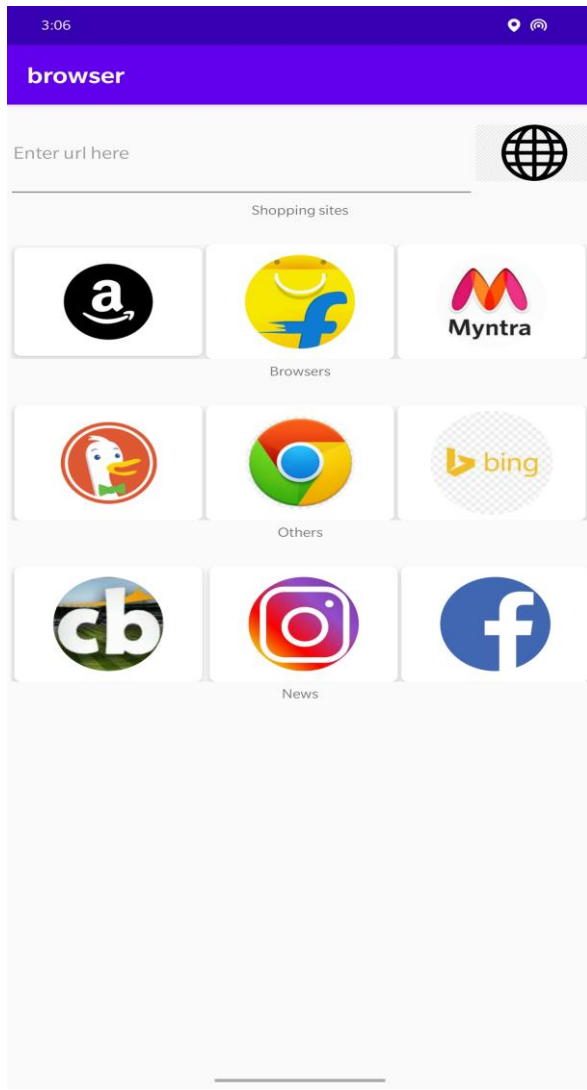
```
</androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT

After entering URL value = 'www.w3schools.com' in the main activity, we are redirected to web page corresponding to the URL. Also after the webpage opening, we get a toast showing the URL of the current site.



Upon clicking the card with amazon logo from the main activity we are redirected to browse activity with URL “www.amazon.com”.

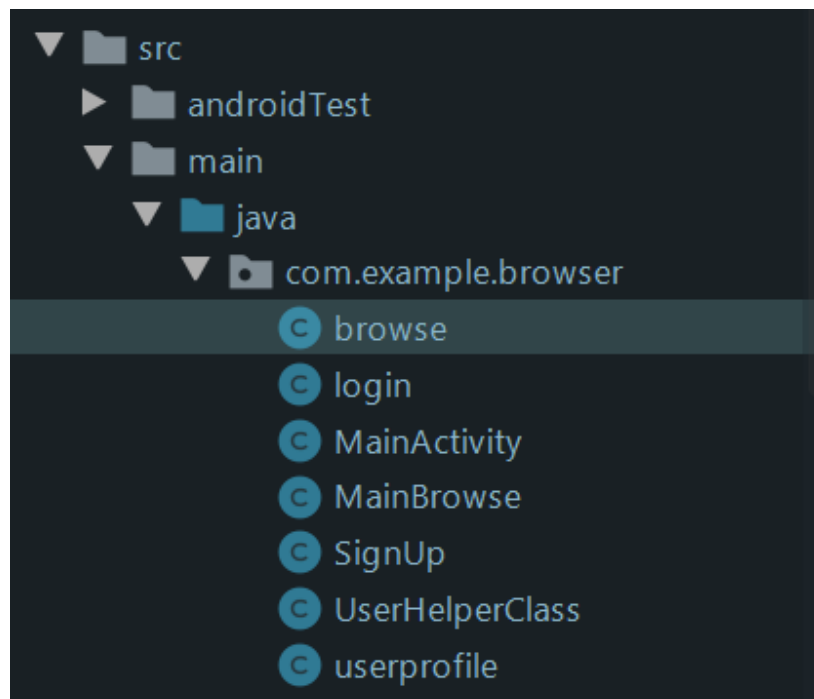


PROJECT REVIEW 3

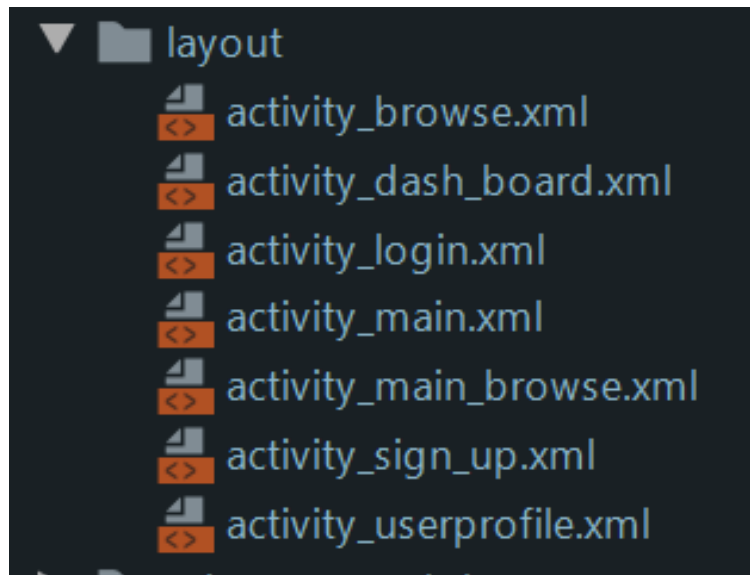
Drive link mailed.

FULL PROJECT EXECUTION

All classes made in project



All xml files



All dependencies used

1.Constraint Layout for constraint layout

```
implementation 'androidx.constraintlayout:constraintlayout:2.0.4'
```

2.Material for material design in UI

```
implementation 'com.google.android.material:material:1.2.1'
```

3.Firebase for database

```
implementation 'com.google.firebase:firebase-database:19.5.1'  
implementation  
'com.google.firebase:firebase-crashlytics:17.2.2'  
implementation 'com.google.firebase:firebase-analytics:18.0.0'
```

4.Circle Image view for circular image view inside card view

```
implementation 'de.hdodenhof:circleimageview:3.1.0'
```

5.Rounded card view for round card view in UI

```
implementation  
'com.github.mycwap:selectableroundedcardview:0.1.4-alpha'
```

MainActivity.java file

```
package com.example.browser;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.os.Handler;  
import android.view.WindowManager;  
  
public class MainActivity extends AppCompatActivity {  
    private static int SPLASH_SCREEN =3000;  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
  
        getWindow().setFlags(WindowManager.LayoutParams.FLAG_FULLSCREEN, W  
indowManager.LayoutParams.FLAG_FULLSCREEN);  
        setContentView(R.layout.activity_main);  
    }  
}
```

```

        new Handler().postDelayed(new Runnable(){
            @Override
            public void run() {
                Intent intent = new Intent(MainActivity.this,
login.class);
                startActivity(intent);
                finish();
            }
        }, SPLASH_SCREEN);
    }
}

```

activity_main.xml file

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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"
android:background="#6200EE">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginStart="150dp"
        android:layout_marginTop="100dp"
        android:layout_marginEnd="150dp"
        android:layout_marginBottom="130dp"
        android:src="@drawable/sicon"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

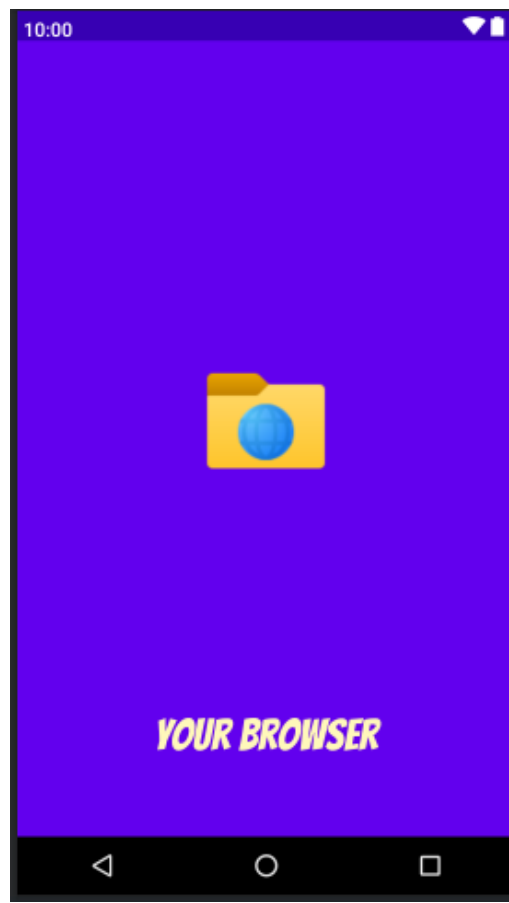
    <TextView
        android:id="@+id/textView3"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="5dp"

```

```
android:layout_marginBottom="56dp"  
android:fontFamily="@font/bangers"  
android:text="Your Browser"  
android:textAlignment="center"  
android:textColor="#FFF8BA"  
android:textColorHighlight="#9EECFE"  
android:textSize="36sp"  
app:layout_constraintBottom_toBottomOf="parent"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toBottomOf="@+id/imageView" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT



Login.java file

```
package com.example.browser;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import com.google.android.material.textfield.TextInputLayout;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.Query;
import com.google.firebase.database.ValueEventListener;

public class login extends AppCompatActivity {

    TextInputLayout username,password;
    Button callSignUp;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);

        callSignUp=findViewById(R.id.sign_up_screen);
        username=findViewById(R.id.username);
        password=findViewById(R.id.password);
        callSignUp.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View view)
            {
                Intent intent=new Intent(login.this,SignUp.class);
                startActivity(intent);
            }
        });
    }
}
```

```
}
```

```
private Boolean validateUser() {
```

```
    String val = username.getEditText().getText().toString();
```

```
    if(val.isEmpty())
```

```
{
```

```
        username.setError("Field Empty");
```

```
        return false;
```

```
}
```

```
    else{
```

```
        username.setError(null);
```

```
        username.setErrorEnabled(false);
```

```
        return true;
```

```
    }
```

```
}
```

```
private Boolean validatePass() {
```

```
    String val =password.getEditText().getText().toString();
```

```
    if(val.isEmpty())
```

```
{
```

```
        username.setError("Field Empty");
```

```
        return false;
```

```
}
```

```
    else{
```

```
        username.setError(null);
```

```
        username.setErrorEnabled(false);
```

```
        return true;
```

```
    }
```

```
}
```

```
public void loginUser(View view)
```

```
{
```

```
    if(!validateUser() || !validatePass())
```

```
{
```

```
        return;
```

```
}
```

```

        else{
            isUser();
        }
    }

    private void isUser()
    {
        String userEnteredUsername=
username.getEditText().getText().toString().trim();
        String userEnteredPassword=
password.getEditText().getText().toString().trim();

        DatabaseReference reference=
FirebaseDatabase.getInstance().getReference("users");

        Query
checkUser=reference.orderByChild("username").equalTo(userEnteredU
sername);

        checkUser.addListenerForSingleValueEvent(new
ValueEventListener() {
            @Override
            public void onDataChange(@NonNull DataSnapshot
snapshot) {

                if(snapshot.exists())
                {
                    username.setError(null);
                    username.setErrorEnabled(false);

                    String passwordFromDB=
snapshot.child(userEnteredUsername).child("pass").getValue(String
.class);

                    if(passwordFromDB.equals(userEnteredPassword))
                    {
                        password.setError(null);
                        password.setErrorEnabled(false);

                        String nameFromDB=
snapshot.child(userEnteredUsername).child("name").getValue(String
.class);

                        String usernameFromDB=
snapshot.child(userEnteredUsername).child("username").getValue(St

```



```

ring.class);

        Intent intent =new
Intent(getApplicationContext(),userprofile.class);

        intent.putExtra("name",nameFromDB);

intent.putExtra("username",usernameFromDB);
intent.putExtra("password",passwordFromDB);

        startActivity(intent);

    }

    else{
        password.setError("Wrong Password");
        password.requestFocus();
    }

    else{
        username.setError("No such User");
        username.requestFocus();
    }
}

@Override
public void onCancelled(@NonNull DatabaseError error) {

}

});
}

}

```

Login.xml file

```
<?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=".login"
    android:orientation="vertical"
    android:background="@color/white"
    android:padding="20dp">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Welcome! Login to Continue"
        android:textSize="30sp"
        android:textColor="@color/black"
        android:fontFamily="@font/bangers"/>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:layout_marginBottom="20dp"
        android:orientation="vertical"
        >

        <com.google.android.material.textfield.TextInputLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:id="@+id/username"
            android:hint="Username"

            style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"
            >
```

```
>
```

```
<com.google.android.material.textfield.TextInputEditText  
    android:id="@id/username"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"/>
```

```
</com.google.android.material.textfield.TextInputLayout>
```

```
<com.google.android.material.textfield.TextInputLayout  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:id="@+id/password"  
    android:hint="Password"  
    app:passwordToggleEnabled="true"
```

```
    style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox"
```

```
>
```

```
<com.google.android.material.textfield.TextInputEditText  
    android:id="@+id/pass"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:inputType="textPassword"/>
```

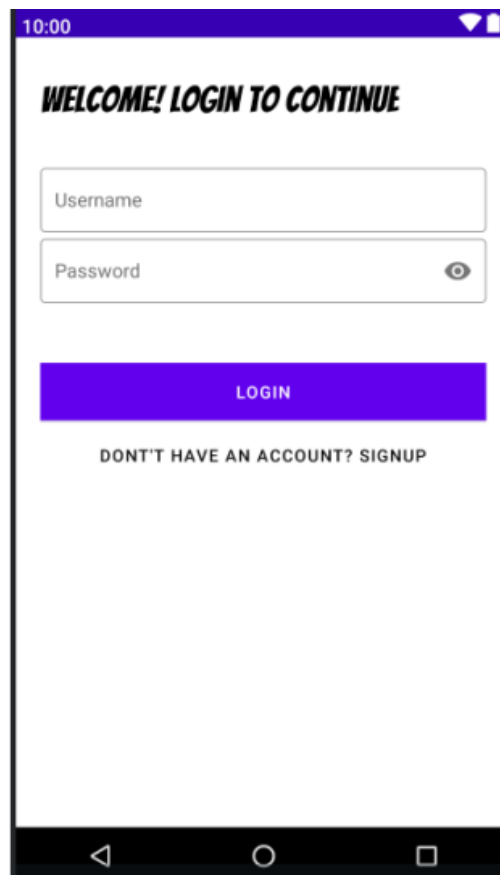
```
</com.google.android.material.textfield.TextInputLayout>
```

```
<Button  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:layout_marginTop="50dp"  
    android:layout_marginBottom="5dp"  
    android:background="#000"  
    android:onClick="loginUser"  
    android:text="Login"  
    android:textColor="#fff" />
```

```
<Button  
    android:id="@+id/sign_up_screen"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:background="#00000000"
```

```
        android:elevation="0dp"  
        android:text="Dont't have an account? SignUp"  
        android:textColor="#000"  
    />  
</LinearLayout>  
</LinearLayout>
```

OUTPUT



Signup.java file

```
package com.example.browser;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import com.google.android.material.textfield.TextInputLayout;
import com.google.firebase.FirebaseApp;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;

public class SignUp extends AppCompatActivity {

    TextInputLayout name,username,pass;
    Button regBtn,regToLogin;
    FirebaseDatabase rootNode;
    DatabaseReference reference;
    Button callLogin;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_sign_up);
        FirebaseApp.initializeApp(this);

        name=findViewById(R.id.name);
        username=findViewById(R.id.username);
        pass=findViewById(R.id.password);
        regBtn=findViewById(R.id.regbtn);

        regBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                rootNode=FirebaseDatabase.getInstance();
                reference=rootNode.getReference("users");
```

```

        //get all values
        String
fname=name.getText().toString();
        String
uname=username.getText().toString();
        String
upass=pass.getText().toString();

        UserHelperClass helperClass=new
UserHelperClass(fname,uname,upass);
        reference.child(uname).setValue(helperClass);
    }
});

callLogin=findViewById(R.id.login_screen);

callLogin.setOnClickListener(new View.OnClickListener()
{
    @Override
    public void onClick(View view)
    {
        Intent intent=new Intent(SignUp.this,login.class);
        startActivity(intent);
    }
});
}
}

```

Signup.xml file

```
<?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=".SignUp"
    android:orientation="vertical"
    android:background="@color/white"
    android:padding="20dp"
    >
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Welcome! Sign Up to Continue"
        android:textSize="30sp"
        android:fontFamily="@font/bangers"
        android:textColor="@color/black"
    />
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:layout_marginTop="20dp">

        <com.google.android.material.textfield.TextInputLayout
            android:id="@+id/name"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:hint="Enter Full Name"
```

```
style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox">
```

```
<com.google.android.material.textfield.TextInputEditText  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:inputType="text"/>
```

```
</com.google.android.material.textfield.TextInputLayout>
```

```
<com.google.android.material.textfield.TextInputLayout  
    android:id="@+id/username"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:hint="Enter Username"  
    app:counterEnabled="true"  
    app:counterMaxLength="15"
```

```
style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox">
```

```
<com.google.android.material.textfield.TextInputEditText  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:inputType="text"/>
```

```
</com.google.android.material.textfield.TextInputLayout>
```

```
<com.google.android.material.textfield.TextInputLayout  
    android:id="@+id/password"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:hint="Enter Password"  
    app:counterEnabled="true"  
    app:passwordToggleEnabled="true"
```

```
style="@style/Widget.MaterialComponents.TextInputLayout.OutlinedBox">
```



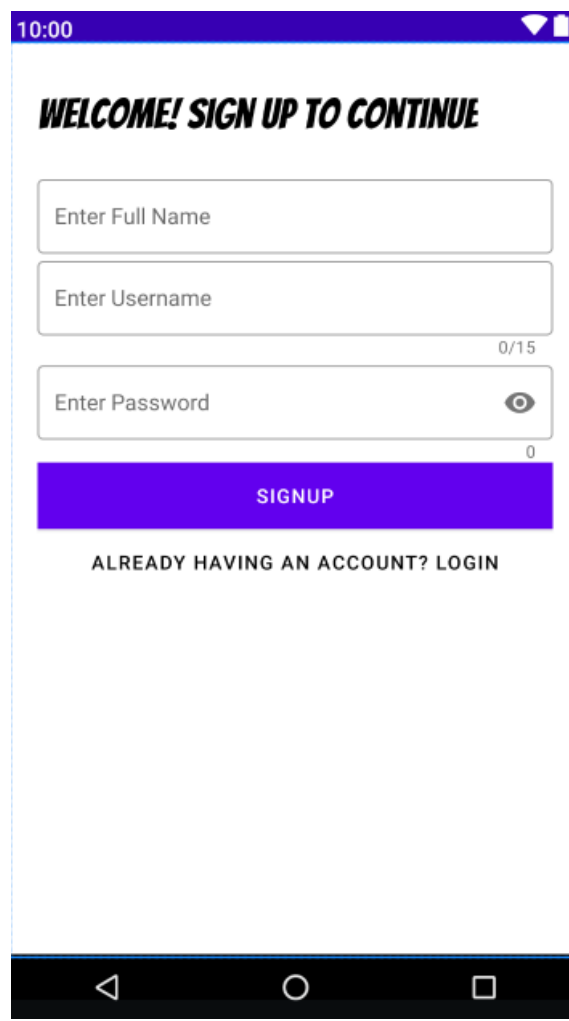
```
<com.google.android.material.textfield.TextInputEditText
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:inputType="textPassword"/>

</com.google.android.material.textfield.TextInputLayout>

</LinearLayout>

<Button
    android:id="@+id/regbtn"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="SignUp"
    android:background="#000"
    android:textColor="@color/white"
/>
<Button
    android:id="@+id/login_screen"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Already having an account? Login"
    android:textColor="#000"
    android:background="#00000000"
/>
</LinearLayout>
```

OUPTUT



A screenshot of a mobile application's signup screen. The screen is framed by a black border. At the top, a purple status bar shows the time '10:00' and signal/battery icons. Below this, the text '**WELCOME! SIGN UP TO CONTINUE**' is displayed in a bold, italicized, black font. The form consists of three white input fields with rounded corners and thin grey borders. The first field is labeled 'Enter Full Name'. The second field is labeled 'Enter Username' and has a '0/15' character count indicator to its right. The third field is labeled 'Enter Password' and has a toggle eye icon to its right. Below the password field is a small '0' character count indicator. A solid purple button with the text 'SIGNUP' in white is positioned below the input fields. Underneath the button, the text 'ALREADY HAVING AN ACCOUNT? LOGIN' is displayed in a smaller, black font. At the bottom of the screen is a black navigation bar with three white icons: a back arrow, a circle, and a square.

10:00

WELCOME! SIGN UP TO CONTINUE

Enter Full Name

Enter Username 0/15

Enter Password 0

SIGNUP

ALREADY HAVING AN ACCOUNT? LOGIN

userprofile.java file

```
package com.example.browser;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

import com.google.android.material.textfield.TextInputLayout;

public class userprofile extends AppCompatActivity {

    TextInputLayout fullname ,username,password;
    TextView fullnameLabel,usernameLabel;
    Button browse;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_userprofile);

        fullname=findViewById(R.id.full_name_profile);
        username=findViewById(R.id.username_profile);
        password=findViewById(R.id.password);
        fullnameLabel=findViewById(R.id.full_name_label);
        usernameLabel=findViewById(R.id.username_label);
        browse=findViewById(R.id.browse);
        showAllUserData();
        browse.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View view)
            {
                Intent intent = new Intent(userprofile.this,
MainBrowse.class);
                startActivity(intent);
                setContentView(R.layout.activity_main_browse);
            }
        });
    }
}
```

```

    }

    private void showAllUserData() {

        Intent intent = getIntent();
        String user_name=intent.getStringExtra("name");
        String user_username=intent.getStringExtra("username");
        String user_password=intent.getStringExtra("password");

        fullnameLabel.setText(user_name);
        usernameLabel.setText(user_username);
        fullname.getText().setText(user_name);
        username.getText().setText(user_username);
        password.getText().setText(user_password);

    }
}

```

userprofile.xml file

```

<?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=".userprofile"
    android:orientation="vertical">

    <RelativeLayout
        android:layout_width="match_parent"
        android:layout_height="300dp"
        android:padding="20dp"
        android:background="@color/purple_500">

        <TextView
            android:id="@+id/full_name_label"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Aayush Chodvadiya"
            android:textSize="20sp"

```

```

        android:fontFamily="@font/bangers"
        android:layout_centerVertical="true"
        android:layout_marginStart="10dp"
        android:includeFontPadding="false"
        android:textColor="@color/white"
    />
    <TextView
        android:id="@+id/username_label"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="10dp"
        android:layout_marginTop="150dp"
        android:text="auc16"
        android:textSize="14sp"
        android:textColor="@color/white"
        android:includeFontPadding="false"
    />
</RelativeLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:padding="20dp"
    android:orientation="vertical"
>
    <com.google.android.material.textfield.TextInputLayout
        android:id="@+id/full_name_profile"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Full name"
        android:layout_marginBottom="10dp">

        <com.google.android.material.textfield.TextInputEditText
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Aayush Chodvadiya"
        />

    </com.google.android.material.textfield.TextInputLayout>

    <com.google.android.material.textfield.TextInputLayout
        android:id="@+id/username_profile"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="User name"
        android:layout_marginBottom="10dp">

```

```
<com.google.android.material.textfield.TextInputEditText
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="auc16"
/>

</com.google.android.material.textfield.TextInputLayout>

<com.google.android.material.textfield.TextInputLayout
    android:id="@+id/password"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="password"
    android:layout_marginBottom="10dp">

<com.google.android.material.textfield.TextInputEditText
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="****"
/>

</com.google.android.material.textfield.TextInputLayout>

<Button
    android:id="@+id/browse"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Browse"
    android:background="#000"
    android:textColor="#fff"/>

</LinearLayout>

</LinearLayout>
```

OUTPUT

10:00

AAYUSH CHODVADIYA
auc16

Full name
Aayush Chodvadiya

User name
auc16

password

BROWSE

UserHelper.java class

```
package com.example.browser;

public class UserHelperClass {
    String name,username,pass;

    public UserHelperClass() {
    }

    public UserHelperClass(String name, String username, String
pass) {
        this.name = name;
        this.username = username;
        this.pass = pass;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String getUsername() {
        return username;
    }

    public void setUsername(String username) {
        this.username = username;
    }

    public String getPass() {
        return pass;
    }

    public void setPass(String pass) {
        this.pass = pass;
    }
}
```


MainBrowse.java file

```
package com.example.browser;

import androidx.appcompat.app.AppCompatActivity;
import de.hdodenhof.circleimageview.CircleImageView;
import android.content.Intent;
import android.os.AsyncTask;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.EditText;
import android.widget.ListView;
import android.widget.Toast;

import org.xmlpull.v1.XmlPullParser;
import org.xmlpull.v1.XmlPullParserException;
import org.xmlpull.v1.XmlPullParserFactory;

import java.io.IOException;
import java.io.InputStream;
import java.net.URL;
import java.nio.charset.MalformedInputException;
import java.util.ArrayList;

public class MainBrowse extends AppCompatActivity {

    EditText url;
    String str;
    ListView mylist;
    public ArrayList<String> titles;
    ArrayList<String> links;

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

        titles = new ArrayList<String>();
        links = new ArrayList<String>();
        mylist = (ListView) findViewById(R.id.list);

        mylist.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
```

```

        @Override
        public void onItemClick(AdapterView<?> adapterView,
View view, int i, long l) {
            str = links.get(i);
            Intent intent = new Intent(MainBrowse.this,
browse.class);
            intent.putExtra("str", str);
            startActivity(intent);
            setContentView(R.layout.activity_browse);
        }
    });
    //new ProcessInBack().execute();

}

public void browse(View view) {

    url = findViewById(R.id.url);

    if (view.getId() == R.id.chrom) {
        str = "https://www.google.com/";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else if (view.getId() == R.id.cb) {
        str = "https://www.cricbuzz.com/";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else if (view.getId() == R.id.search) {
        str = url.getText().toString();

        if (str.startsWith("www")) {
            str = "https://" + str;
        }
        if (str.isEmpty()) {
            Toast.makeText(this, "Nothing is written as url",
Toast.LENGTH_LONG).show();
        }

        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else if (view.getId() == R.id.duck) {
        str = "https://www.duckduckgo.com";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else if (view.getId() == R.id.insta) {
        str = "https://www.instagram.com";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    }
}

```

```

    } else if (view.getId() == R.id.amazon) {
        str = "https://www.amazon.com";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else if (view.getId() == R.id.fb) {
        str = "https://www.facebook.com";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else if (view.getId() == R.id.bing) {
        str = "https://www.bing.com";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else if (view.getId() == R.id.myntra) {
        str = "https://www.myntra.com";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else if (view.getId() == R.id.flip) {
        str = "https://www.flipkart.com";
        Toast.makeText(this, str, Toast.LENGTH_LONG).show();
    } else {
        Toast.makeText(this, "something is wrong",
Toast.LENGTH_LONG).show();
    }
    Intent intent = new Intent(this, browse.class);
    intent.putExtra("str", str);
    startActivity(intent);
    setContentView(R.layout.activity_browse);
}
}

```

```

/*
// getting feeds
public InputStream getInputStream(URL url) {
    try {
        return url.openConnection().getInputStream();
    } catch (IOException e) {
        return null;
    }
}

```

```

    public class ProcessInBack extends AsyncTask<Integer, Void,
Exception> {

        Exception exp = null;

        @Override
        protected void onPreExecute() {
            super.onPreExecute();
        }
    }

```

```

@Override
protected Exception doInBackground(Integer... integers) {

    try {
        URL url = new
URL("http://feeds.news24.com/articles/news24/TopStories/rss");

        XmlPullParserFactory factory =
XmlPullParserFactory.newInstance();
        factory.setNamespaceAware(false);
        XmlPullParser xpp = factory.newPullParser();
        xpp.setInput(getInputStream(url), "UTF_8");
        boolean insideitem = false;
        int event = xpp.getEventType();
        while (event != XmlPullParser.END_DOCUMENT) {
            if (event == XmlPullParser.START_TAG) {
                if
(xpp.getName().equalsIgnoreCase("item")) {
                    insideitem = true;
                } else if
(xpp.getName().equalsIgnoreCase("title")) {
                    if (insideitem) {
                        titles.add(xpp.nextText());
                    }
                } else if
(xpp.getName().equalsIgnoreCase("link")) {
                    if (insideitem) {
                        links.add(xpp.nextText());
                    }
                } else if (event == XmlPullParser.END_TAG &&
xpp.getName().equalsIgnoreCase("item")) {
                    insideitem = false;
                }
            }

            event = xpp.next();
        }
    } catch (MalformedURLException e) {
        exp = e;
    } catch (XmlPullParserException e) {
        exp = e;
    } catch (IOException e) {
        exp = e;
    }
}

```

```

        return exp;
    }

    @Override
    protected void onPostExecute(Exception s) {
        super.onPostExecute(s);
        ArrayAdapter<String> adapter = new
ArrayAdapter<>(MainBrowse.this,
android.R.layout.simple_list_item_1, titles);
        mylist.setAdapter(adapter);
    }
}
}
*/

```

Activity main browse.xml file

```

<?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=".MainBrowse"
android:weightSum="10"
android:orientation="vertical">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:layout_weight="1"
        android:weightSum="5"
        android:orientation="horizontal">

        <EditText
            android:layout_width="0dp"
            android:layout_height="match_parent"

```

```
        android:id="@+id/url"
        android:paddingHorizontal="5dp"
        android:hint="Enter url here"
        android:layout_weight="4"
    />
    <ImageView
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:id="@+id/search"
        android:onClick="browse"
        android:src="@drawable/log"/>
```

```
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="5"
    android:weightSum="12"
    android:orientation="vertical">
```

```
    <androidx.appcompat.widget.AppCompatTextView
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:text="Shopping sites"
        android:layout_weight="1"
        android:textAlignment="center"

    />
```

```
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:layout_weight="3"
        android:orientation="horizontal"
        android:weightSum="3"
        android:padding="3dp">
```

```
        <ie.miao.yichong.diycardview.view.DIYRoundedCardView
            android:id="@+id/amazon"
            android:layout_width="0dp"
            android:layout_height="match_parent"
```

```
        android:layout_margin="3dp"
        android:layout_weight="1"
        app:cardElevation="5dp"
        android:onClick="browse"
        app:cardCornerRadius="5dp">
```

```
        <de.hdodenhof.circleimageview.CircleImageView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_margin="5dp"
            android:src="@drawable/amazon"
        />
```

```
</ie.miao.yichong.diyocardview.view.DIYRoundedCardView>
```

```
        <ie.miao.yichong.diyocardview.view.DIYRoundedCardView
            android:layout_width="0dp"
            android:layout_height="match_parent"
            android:layout_weight="1"
            android:onClick="browse"
            android:id="@+id/flip"
            app:cardCornerRadius="5dp"
            app:cardElevation="5dp">
```

```
        <de.hdodenhof.circleimageview.CircleImageView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_margin="5dp"
            android:padding="5dp"

            android:src="@drawable/flip" />
```

```
</ie.miao.yichong.diyocardview.view.DIYRoundedCardView>
```

```
        <ie.miao.yichong.diyocardview.view.DIYRoundedCardView
            android:layout_width="0dp"
            android:layout_height="match_parent"
            android:layout_weight="1"
            android:layout_marginHorizontal="3dp"
```

```
            android:id="@+id/myntra"
            android:onClick="browse"
            app:cardCornerRadius="5dp"
            app:cardElevation="5dp">
```

```
        <de.hdodenhof.circleimageview.CircleImageView
```

```
        android:layout_width="match_parent"  
        android:layout_height="match_parent"  
        android:layout_margin="5dp"  
        android:padding="5dp"  
        android:src="@drawable/mynta"
```

```
    />
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
</LinearLayout>
```

```
<androidx.appcompat.widget.AppCompatTextView  
    android:layout_width="match_parent"  
    android:layout_height="0dp"  
    android:layout_weight="1"  
    android:text="Browsers"  
    android:textAlignment="center"
```

```
    />
```

```
<LinearLayout  
    android:layout_width="match_parent"  
    android:layout_height="0dp"  
    android:layout_weight="3"  
    android:orientation="horizontal"  
    android:weightSum="3"  
    android:padding="3dp">
```

```
<ie.miao.yichong.diycardview.view.DIYRoundedCardView  
    android:id="@+id/duck"  
    android:layout_width="0dp"  
    android:layout_height="match_parent"  
    android:layout_marginHorizontal="3dp"  
  
    android:layout_weight="1"  
    android:onClick="browse"
```



```
app:cardCornerRadius="5dp"  
app:cardElevation="5dp">
```

```
<de.hdodenhof.circleimageview.CircleImageView  
    android:layout_width="match_parent"  
    android:layout_height="match_parent"  
    android:layout_margin="5dp"  
    android:padding="5dp"  
    android:src="@drawable/duck"
```

```
/>
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
<ie.miao.yichong.diycardview.view.DIYRoundedCardView  
    android:id="@+id/chrom"  
    android:layout_width="0dp"  
    android:layout_height="match_parent"  
    android:layout_weight="1"  
    android:onClick="browse"  
    app:cardCornerRadius="5dp"  
    app:cardElevation="5dp">
```

```
<de.hdodenhof.circleimageview.CircleImageView  
    android:layout_width="match_parent"  
    android:layout_height="match_parent"  
    android:layout_margin="5dp"  
    android:padding="5dp"  
    android:layout_marginHorizontal="3dp"
```

```
    android:src="@drawable/chrom"
```

```
/>
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
<ie.miao.yichong.diycardview.view.DIYRoundedCardView  
    android:id="@+id/bing"  
    android:layout_width="0dp"  
    android:layout_height="match_parent"  
    android:layout_weight="1"  
    android:onClick="browse"
```

```

        android:layout_marginHorizontal="3dp"

        app:cardCornerRadius="5dp"
        app:cardElevation="5dp">

        <de.hdodenhof.circleimageview.CircleImageView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_margin="5dp"
            android:src="@drawable/bing"

            />

</ie.miao.yichong.diycardview.view.DIYRoundedCardView>

</LinearLayout>

<androidx.appcompat.widget.AppCompatTextView
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:text="Others"
    android:textAlignment="center"

    />

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="3"
    android:orientation="horizontal"
    android:padding="3dp"
    android:weightSum="3"
    >

    <ie.miao.yichong.diycardview.view.DIYRoundedCardView
        android:id="@+id/cb"
        android:layout_width="0dp"

```

```
        android:layout_height="match_parent"
        android:layout_marginHorizontal="3dp"
        android:layout_weight="1"
        android:onClick="browse"

        app:cardCornerRadius="5dp"
        app:cardElevation="5dp">

        <de.hdodenhof.circleimageview.CircleImageView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_margin="5dp"
            android:padding="5dp"
            android:src="@drawable/cb"

            />
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
    <ie.miao.yichong.diycardview.view.DIYRoundedCardView
        android:id="@+id/insta"
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:onClick="browse"
        android:layout_marginHorizontal="3dp"

        app:cardCornerRadius="5dp"
        app:cardElevation="5dp">

        <de.hdodenhof.circleimageview.CircleImageView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_margin="5dp"
            android:padding="5dp"
            android:src="@drawable/insta"

            />
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
    <ie.miao.yichong.diycardview.view.DIYRoundedCardView
        android:id="@+id/fb"
```

```
        android:layout_width="0dp"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:onClick="browse"

        app:cardCornerRadius="5dp"
        app:cardElevation="5dp">

        <de.hdodenhof.circleimageview.CircleImageView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_margin="5dp"
            android:padding="5dp"
            android:src="@drawable/fbpng"

            android:layout_marginHorizontal="3dp"

        />
```

```
</ie.miao.yichong.diycardview.view.DIYRoundedCardView>
```

```
</LinearLayout>
```

```
</LinearLayout>
```

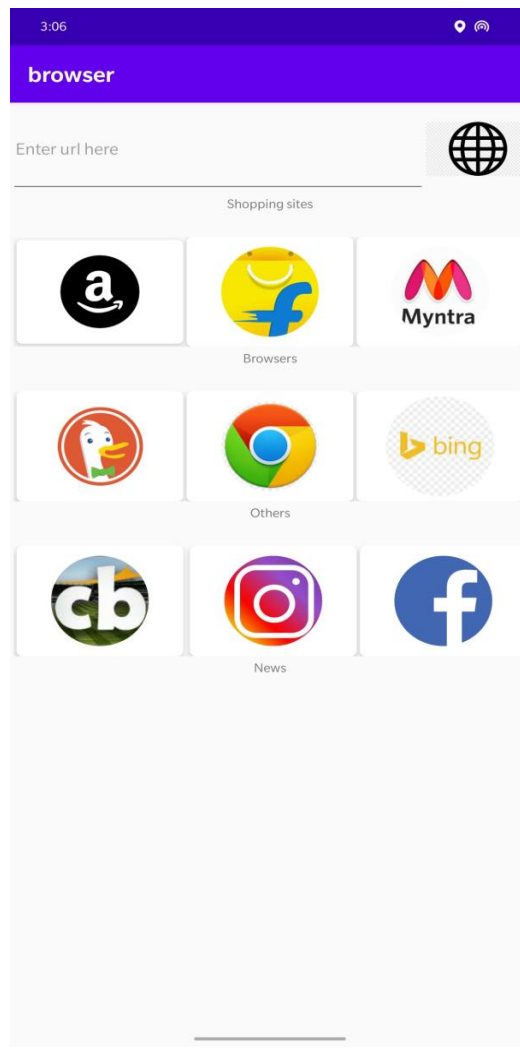
```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="4"
    android:orientation="vertical"
    >
    <androidx.appcompat.widget.AppCompatTextView
        android:layout_width="match_parent"
        android:layout_height="30dp"
        android:text="News"
        android:textAlignment="center"

        />
    <ListView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/list"
        android:layout_margin="4dp"/>
</LinearLayout>
```

```
</LinearLayout>
```

OUTPUT

Homepage for the app (MainBrowse Activity) :



Browse.java file

```
package com.example.browser;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.webkit.WebSettings;
import android.webkit.WebView;
import android.webkit.WebViewClient;

public class browse extends AppCompatActivity {

    WebView web;
    String s;

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

        s = getIntent().getExtras().getString("str");

        web = (WebView) findViewById(R.id.web);
        WebSettings webSettings = web.getSettings();
        webSettings.setJavaScriptEnabled(true);
        web.loadUrl(s);
        web.setWebViewClient(new WebViewClient());
    }

    @Override
    public void onBackPressed() {

        if (web.canGoBack()) {
            web.goBack();
        }
        else{

```

```
        Intent i = new Intent(this, MainBrowse.class);
        startActivity(i);
        setContentView(R.layout.activity_main_browse);
    }
}
```

Browse.xml file

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    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=".browse">

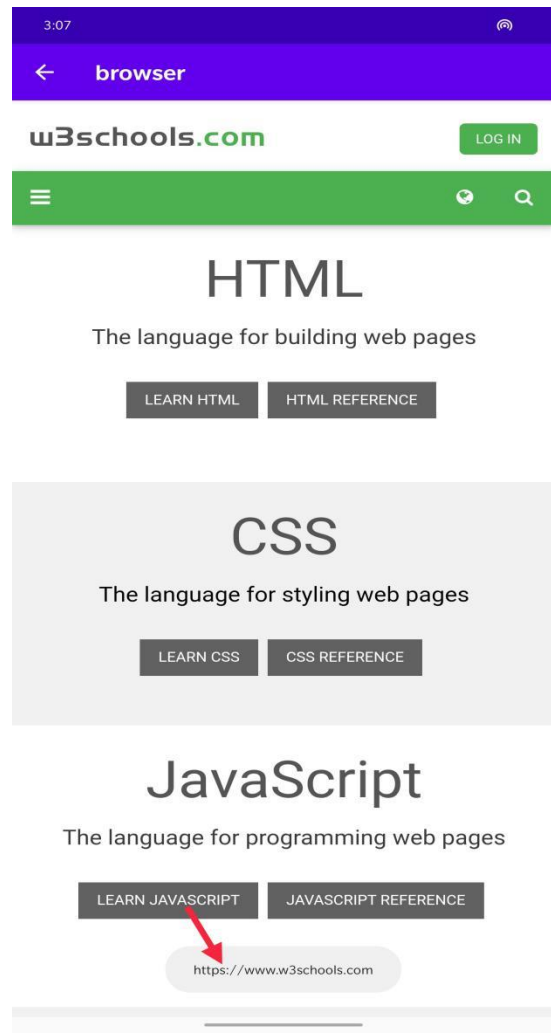
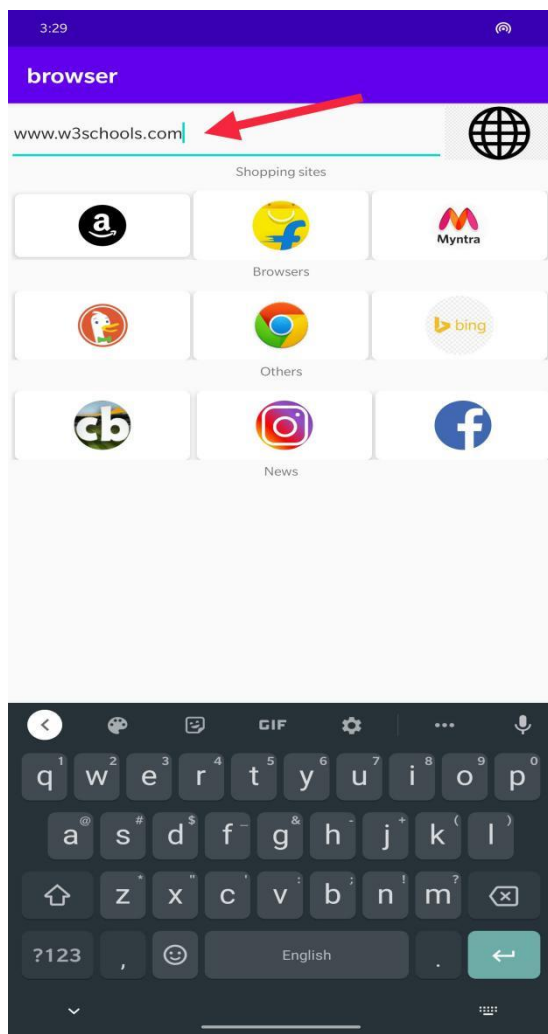
    <WebView
        android:id="@+id/web"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:layout_constraintBottom_toBottomOf="parent"
        tools:layout_editor_absoluteX="16dp">

    </WebView>

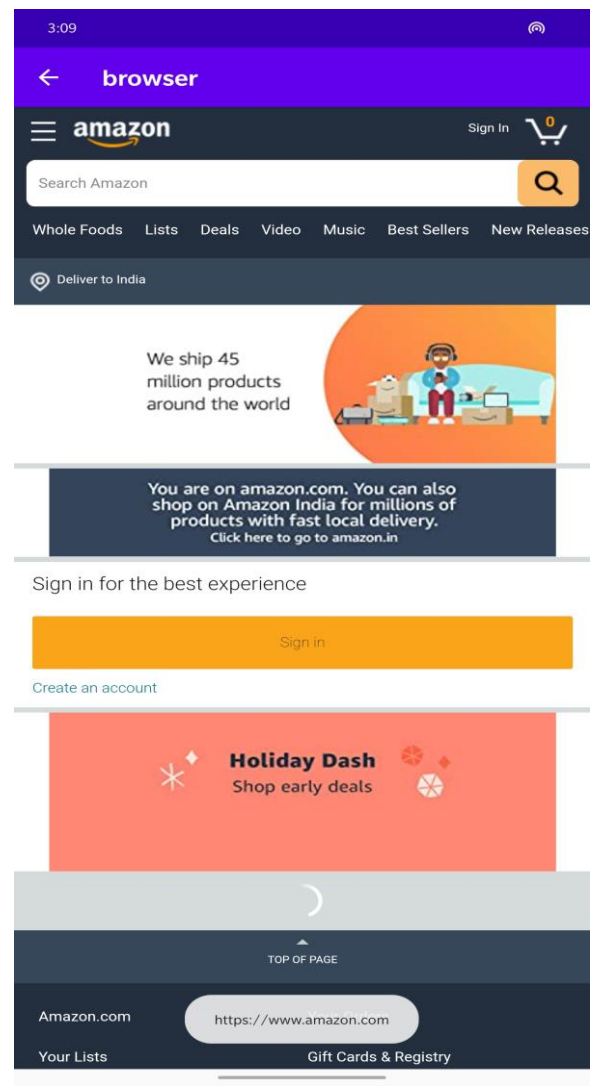
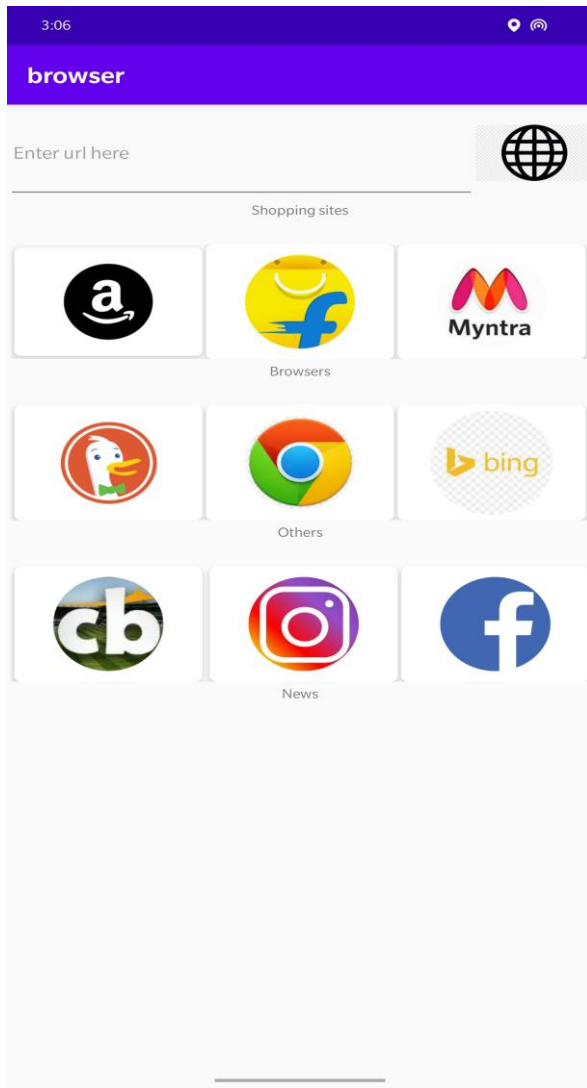
</androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT

After entering URL value = 'www.w3schools.com' in the main activity, we are redirected to web page corresponding to the URL. Also after the webpage opening, we get a toast showing the URL of the current site.

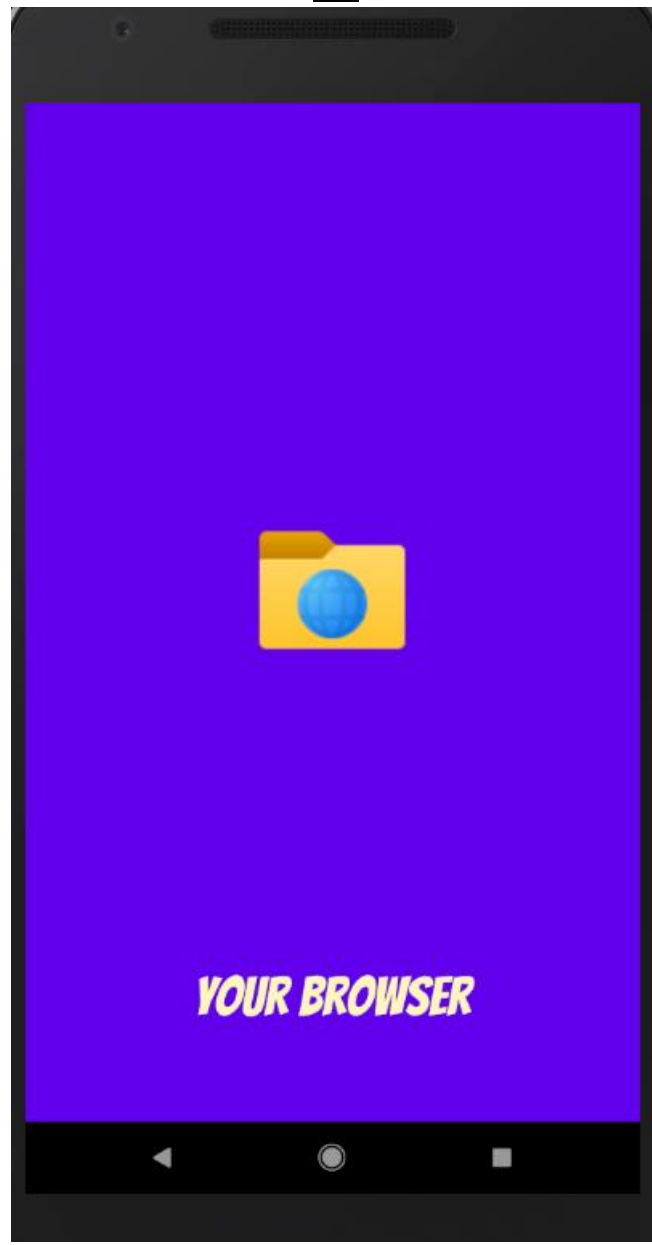


Upon clicking the card with amazon logo from the main activity we are redirected to browse activity with URL “www.amazon.com”.

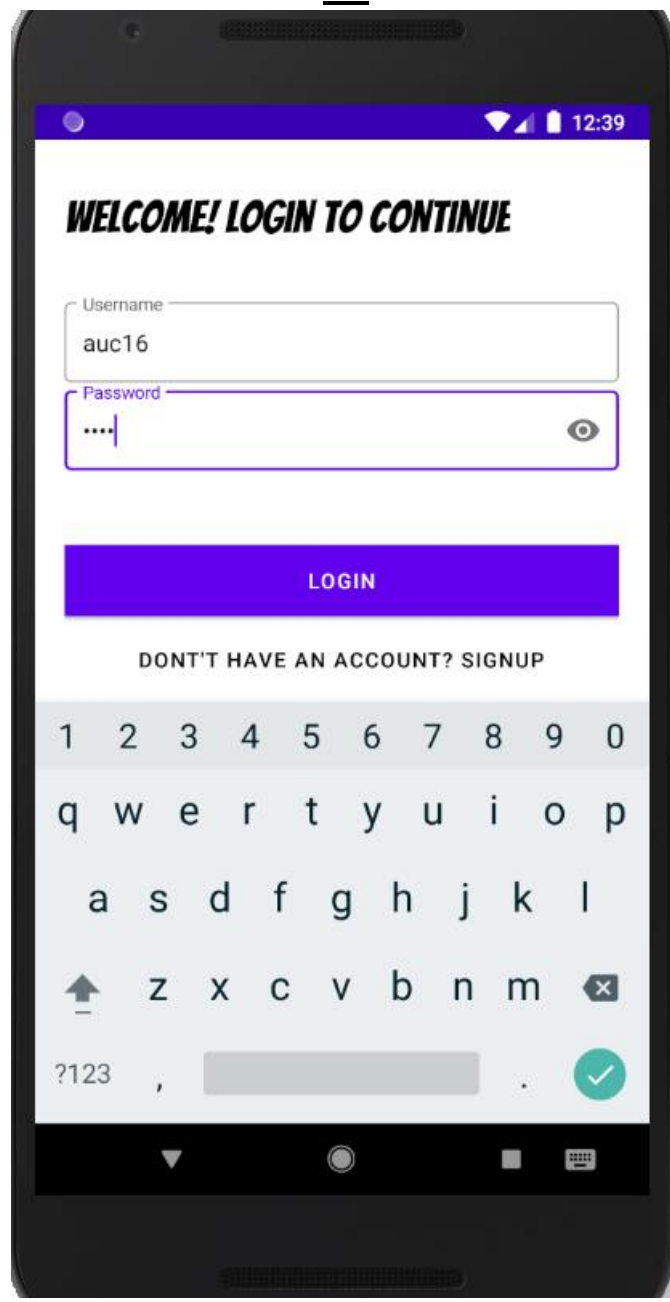


Final Output on 100% Execution

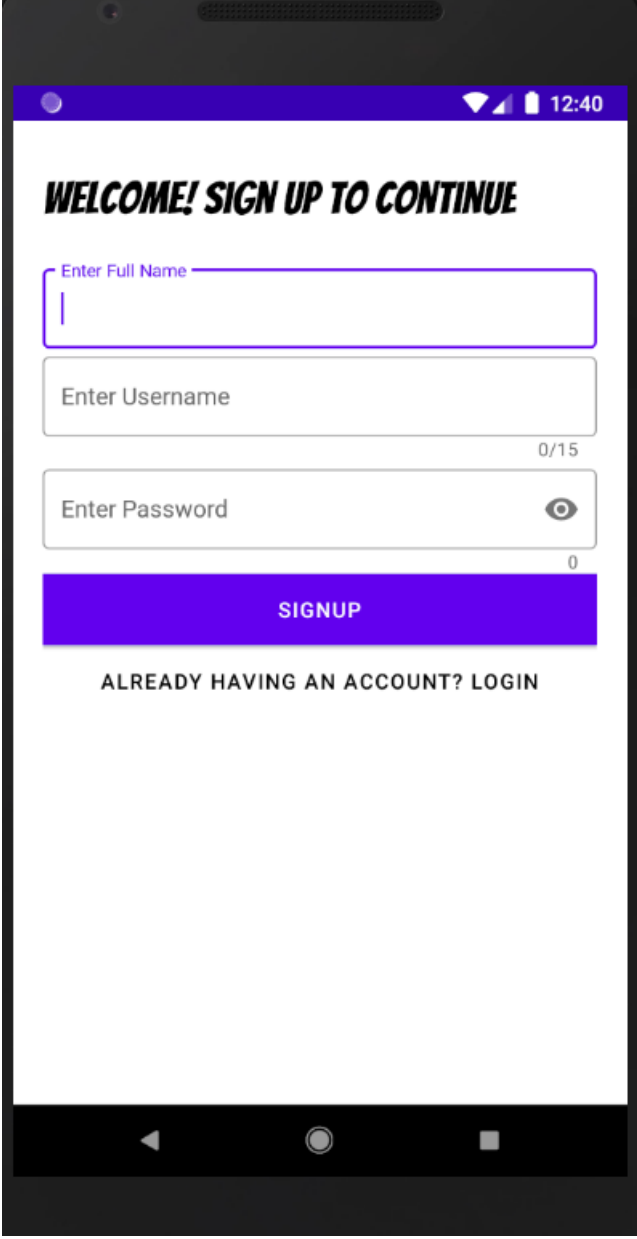
1.



2.



3.

A mobile application interface for a signup screen. At the top, a status bar shows a blue background with white icons for signal, battery, and time (12:40). Below this, a white header area contains the text "WELCOME! SIGN UP TO CONTINUE" in bold, italicized black font. The main content area is white and contains three input fields: "Enter Full Name" (with a blue border and a vertical cursor), "Enter Username" (with a light gray border and a character count of 0/15), and "Enter Password" (with a light gray border, a character count of 0, and an eye icon for toggling visibility). Below the input fields is a blue button with the text "SIGNUP" in white. At the bottom of the form area is a link that says "ALREADY HAVING AN ACCOUNT? LOGIN". The entire screen is framed by a dark gray border representing the phone's bezel. At the very bottom, there is a black bar with three white icons: a back arrow, a home circle, and a recent apps square.

WELCOME! SIGN UP TO CONTINUE

Enter Full Name

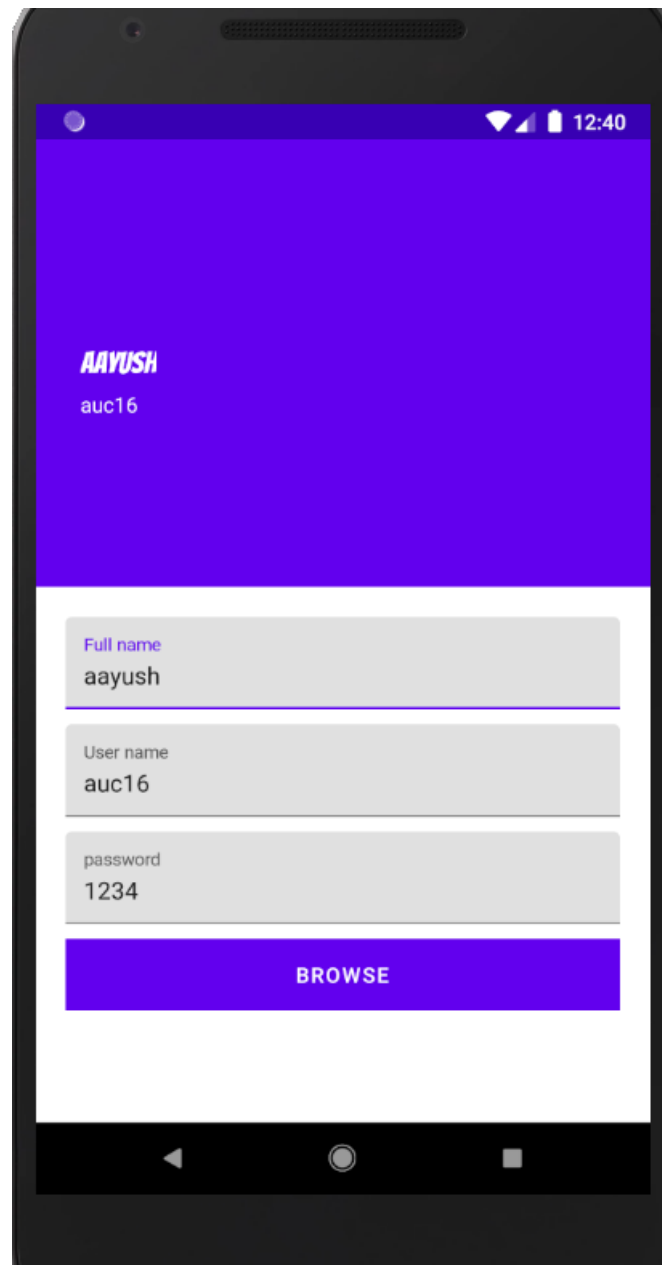
Enter Username 0/15

Enter Password 0

SIGNUP

ALREADY HAVING AN ACCOUNT? LOGIN

4.



A mobile application login screen displayed on a smartphone. The screen has a white background. At the top, there is a blue header bar with the text "AAVUSH" in white, bold, uppercase letters, and "auc16" in white, lowercase letters below it. Below the header, there are three input fields with light gray borders and labels above them: "Full name" with the value "aayush", "User name" with the value "auc16", and "password" with the value "1234". Below these fields is a blue button with the text "BROWSE" in white, uppercase letters. The smartphone's status bar at the top shows the time "12:40" and various icons. The bottom of the screen shows the Android navigation bar.

AAVUSH
auc16

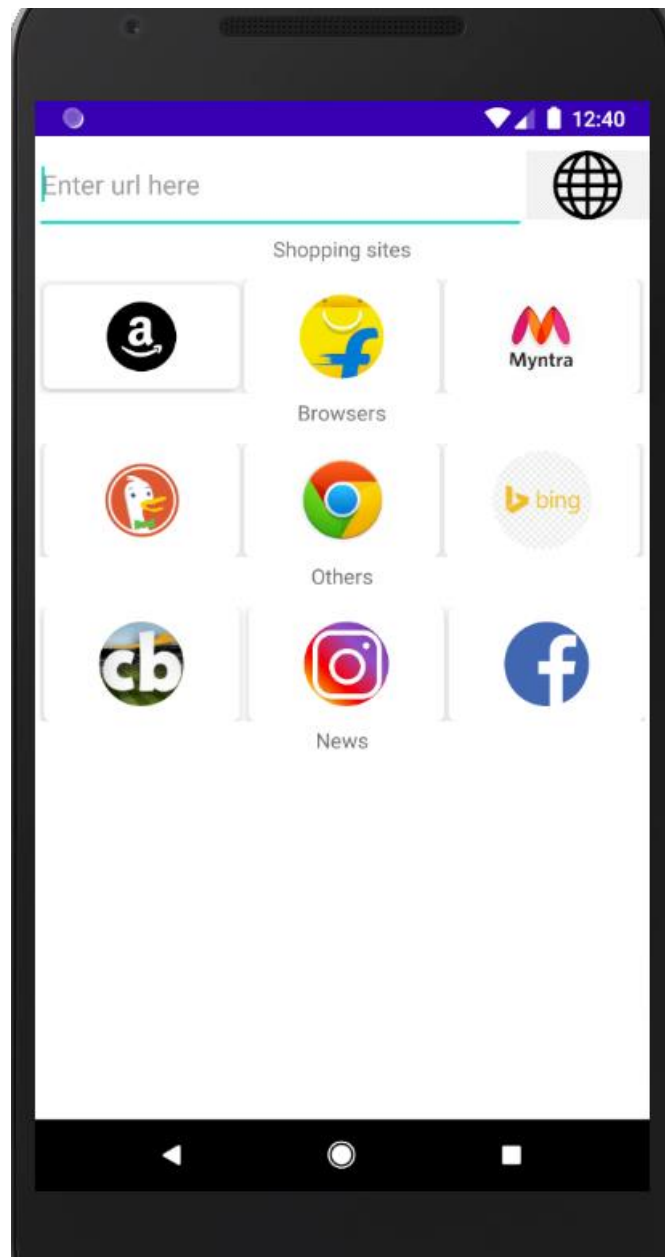
Full name
aayush

User name
auc16

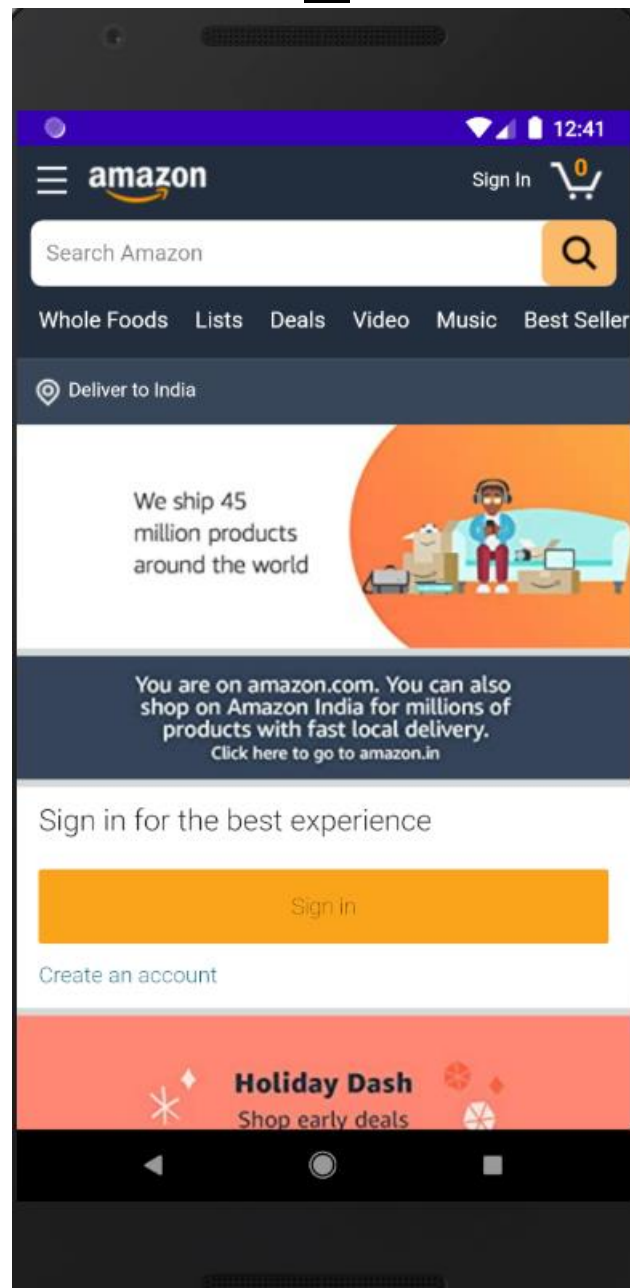
password
1234

BROWSE

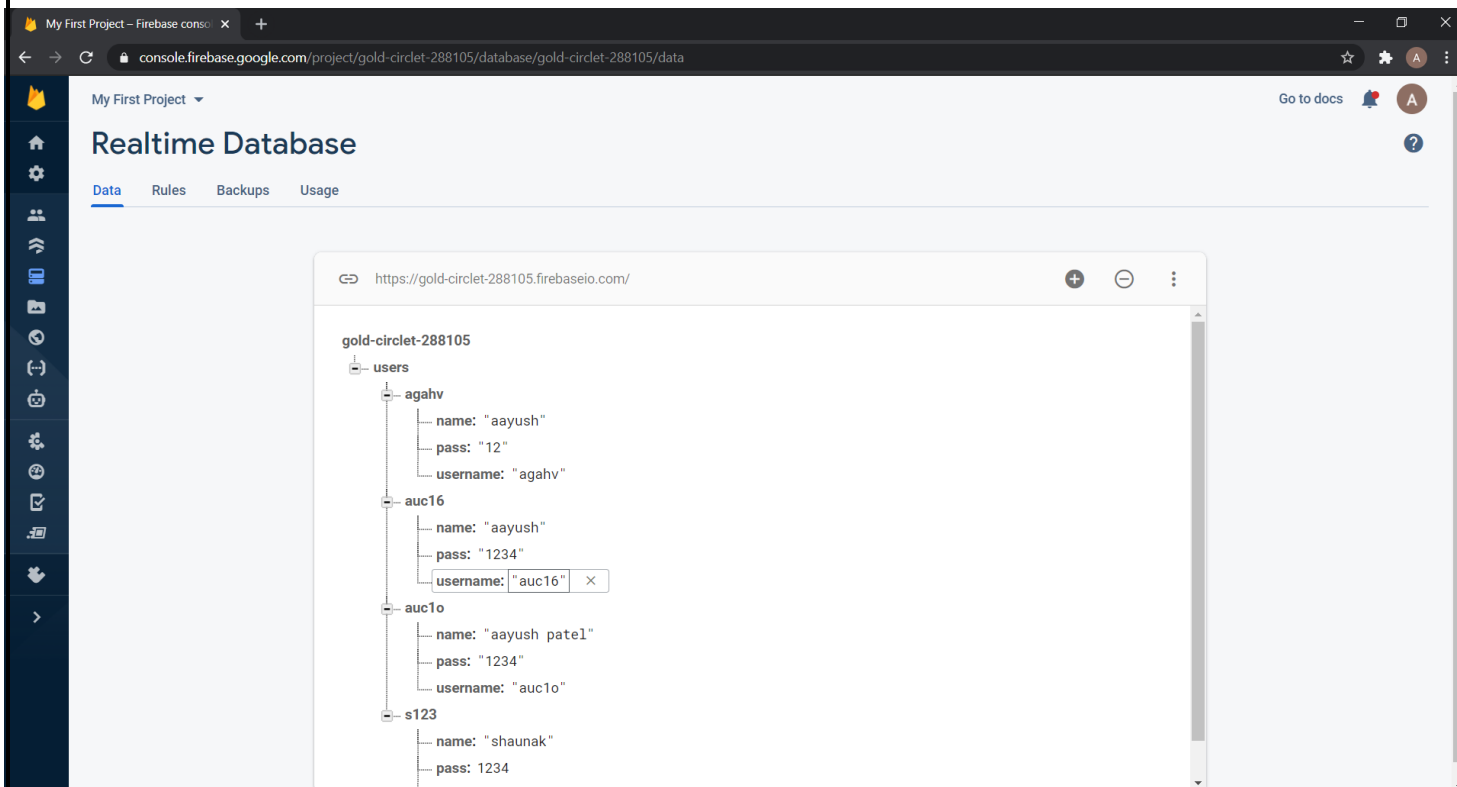
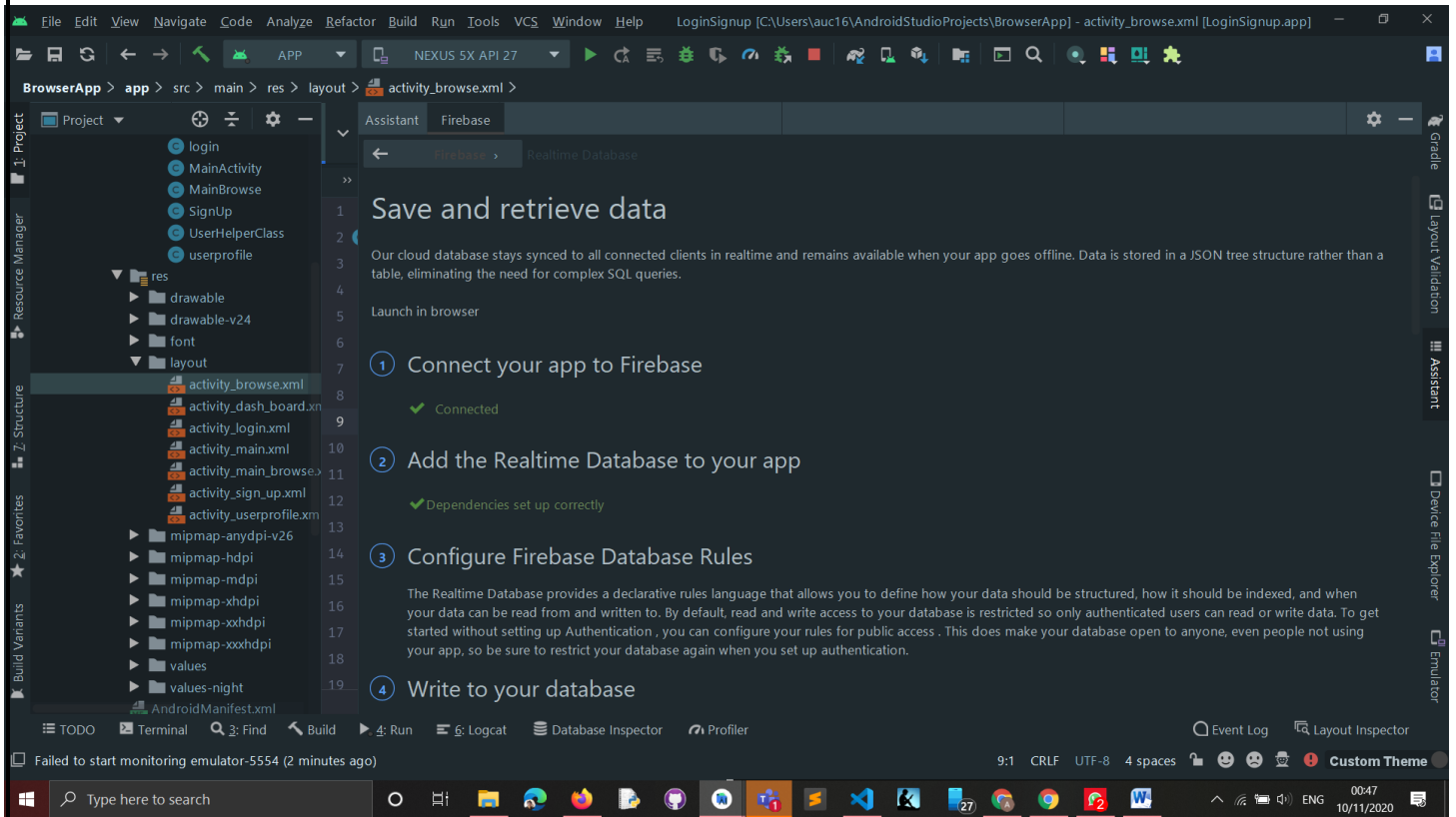
5.



6.

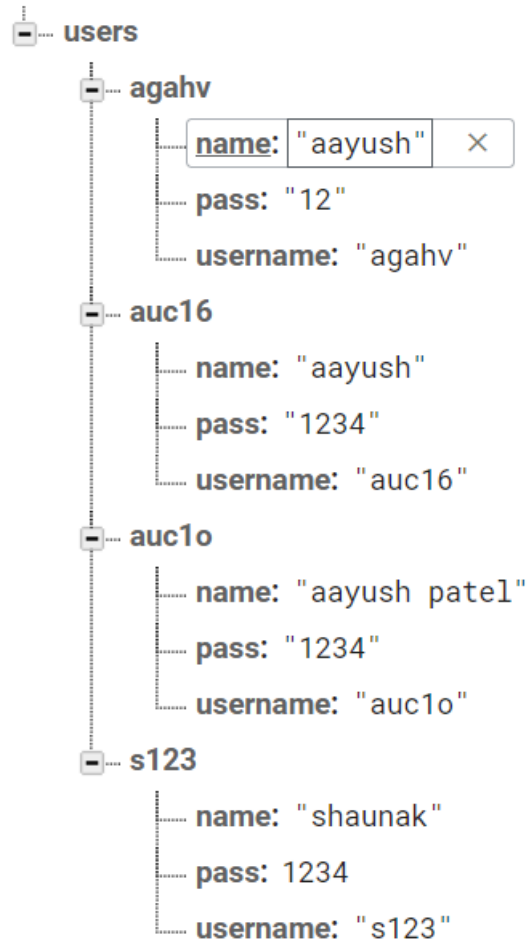


Firestore Database Connection Screenshot



<https://gold-circlet-288105.firebaseio.com/>

gold-circlet-288105



THANK YOU