

Experiment-5

Aim: Develop an application that makes use of RSS Feed.

Procedure:

Creating a New project:

- Open Android Studio and then click on File -> New -> New project.
- Then select the Empty Activity and click Next.
- Then type the Application name as “ex.no.6”, select the Minimum SDK and select language as Java then click Finish.

Designing layout for the Android Application:

Click on app -> res -> layout -> activity_main.xml

Code for Activity_main.xml:

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

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

    android:layout_width="fill_parent"

    android:layout_height="fill_parent"

    android:orientation="vertical" >

    <ListView

        android:id="@+id/listView"

        android:layout_width="match_parent"

        android:layout_height="wrap_content" />

</LinearLayout>
```

So now the designing part is completed.

Adding permissions in Manifest for the Android Application:

- Click on app -> manifests -> AndroidManifest.xml
- Now include the INTERNET permissions in the AndroidManifest.xml file as shown below

Code for AndroidManifest.xml:

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

<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.exno6" >

    <uses-permission android:name="android.permission.INTERNET"/>

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:supportsRtl="true"
        android:theme="@style/AppTheme" >

        <activity android:name=".MainActivity" >

            <intent-filter>

                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />

            </intent-filter>

        </activity>

    </application>

</manifest>
```

So now the Permissions are added in the Manifest.

Java Coding for the Android Application:

Click on app -> java -> com.example.exno6 -> MainActivity.

Code for MainActivity.java:

```
package com.example.exno6;
```

```
import android.app.ListActivity;

import android.content.Intent;

import android.net.Uri;

import android.os.AsyncTask;

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.ListView;

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.MalformedURLException;

import java.net.URL;

import java.util.ArrayList;

import java.util.List;


public class MainActivity extends ListActivity

{

    List headlines;

    List links;

    @Override

    protected void onCreate(Bundle savedInstanceState)
```

```

{
    super.onCreate(savedInstanceState);

    new MyAsyncTask().execute();
}

class MyAsyncTask extends AsyncTask<Object,Void,ArrayAdapter>
{
    @Override

    protected ArrayAdapter doInBackground(Object[] params)
    {
        headlines = new ArrayList();
        links = new ArrayList();

        try
        {
            URL url = new URL("https://codingconnect.net/feed");

            XmlPullParserFactory factory = XmlPullParserFactory.newInstance();

            factory.setNamespaceAware(false);

            XmlPullParser xpp = factory.newPullParser();

            // We will get the XML from an input stream
            xpp.setInput(getInputStream(url), "UTF_8");

            boolean insideItem = false;

            // Returns the type of current event: START_TAG, END_TAG, etc..
            int eventType = xpp.getEventType();

            while (eventType != XmlPullParser.END_DOCUMENT)

```

```

{
    if (eventType == XmlPullParser.START_TAG)
    {
        if (xpp.getName().equalsIgnoreCase("item"))
        {
            insideItem = true;
        }
        else if (xpp.getName().equalsIgnoreCase("title"))
        {
            if (insideItem)
                headlines.add(xpp.nextText()); //extract the headline
        }
        else if (xpp.getName().equalsIgnoreCase("link"))
        {
            if (insideItem)
                links.add(xpp.nextText()); //extract the link of article
        }
    }
    else if(eventType==XmlPullParser.END_TAG &&
xpp.getName().equalsIgnoreCase("item"))
    {
        insideItem=false;
    }
    eventType = xpp.next(); //move to next element
}

```

```

    }

    catch (MalformedURLException e)

    {

        e.printStackTrace();

    }

    catch (XmlPullParserException e)

    {

        e.printStackTrace();

    }

    catch (IOException e)

    {

        e.printStackTrace();

    }

    return null;

}

protected void onPostExecute(ArrayAdapter adapter)

{

    adapter = new ArrayAdapter(MainActivity.this, android.R.layout.simple_list_item_1,
headlines);

    setListAdapter(adapter);

}

}

@Override

protected void onItemClick(ListView l, View v, int position, long id)

```

```

{
    Uri uri = Uri.parse((links.get(position)).toString());
    Intent intent = new Intent(Intent.ACTION_VIEW, uri);
    startActivity(intent);
}

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

```

- So now the Coding part is also completed.
- Now run the application to see the output.

Output

