# Practical No 14

## X.1

- **Program:**
- **XML File 1:**

```xml
<?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">
 <ListView
 android:id="@+id/listView"
 android:layout_width="match_parent"
 android:layout_height="fill_parent"
 tools:ignore="MissingConstraints" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

- **XML File 2:**

```xml
<?xml version="1.0" encoding="utf-8"?>
<TextView xmlns:android="http://schemas.android.com/apk/res/android"
 android:id="@+id/textView"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:textSize="80dp"
 android:textStyle="bold"
 android:textAppearance="?android:attr/textAppearanceMedium"
 android:layout_marginLeft="10dp"
 android:layout_marginTop="5dp"
 android:padding="6dp"
 android:textColor="#4d4d4d"/>
```

- **String File:**

```xml
<resources>
 <string name="app_name">Pr_14_1</string>
 <string-array name="array_technology">
 <item>Android</item>
 <item>Java</item>
 <item>Php</item>
 <item>Hadoop</item>
 <item>Sap</item>
 <item>Python</item>
 <item>Ajax</item>
 <item>C++</item>
 <item>Ruby</item>
 <item>Rails</item>
 </string-array>
</resources>
```

- **JAVA File:**

```java
package com.example.pr_14_1;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
 ListView listView;
 TextView textView;
 String[] listItem;
 @Override
 protected void onCreate(Bundle savedInstanceState) {
```
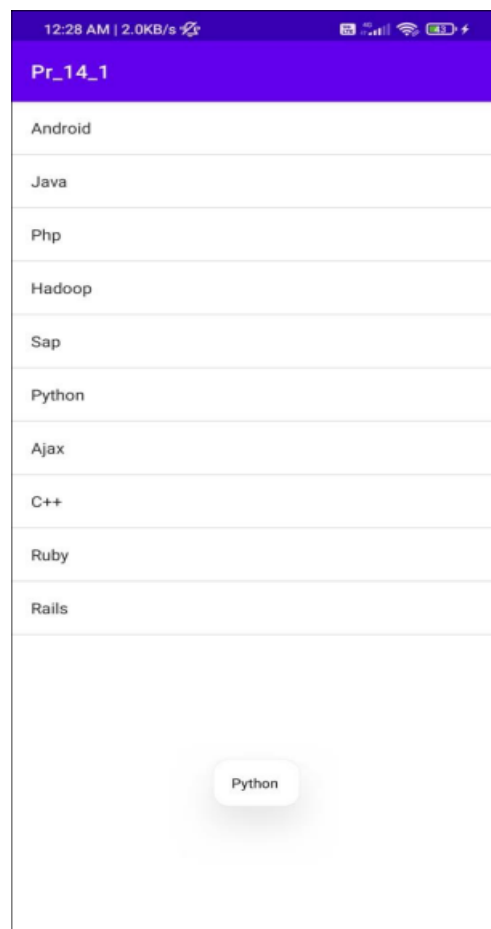
```java
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
listView=(ListView)findViewById(R.id.listView);
textView=(TextView)findViewById(R.id.textView);
listItem =
getResources().getStringArray(R.array.array_technology);
final ArrayAdapter<String> adapter = new
ArrayAdapter<String>(this,
android.R.layout.simple_list_item_1,
android.R.id.text1, listItem);
listView.setAdapter(adapter);
listView.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
@Override
public void onItemClick(AdapterView<?> adapterView, View
view, int position,long l) {
String value=adapter.getItem(position);

Toast.makeText(getApplicationContext(),value,Toast.LENGTH_SHORT).show
();
}
});
}
}
```

- **Output:**



**X.2**

- **Program:**
- **XML File:**

```xml
<?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">
    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```xml
        android:layout_marginStart="158dp"

        android:layout_marginTop="341dp"

        android:layout_marginEnd="159dp"

        android:layout_marginBottom="342dp"

        android:text="Download File"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintHorizontal_bias="0.491"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent"

        app:layout_constraintVertical_bias="1.0" />

    <ProgressBar

        android:id="@+id/progressBar"

        style="?android:attr/progressBarStyle"

        android:layout_width="97dp"

        android:layout_height="129dp"

        android:layout_marginStart="189dp"

        android:layout_marginTop="236dp"

        android:layout_marginEnd="175dp"

        android:layout_marginBottom="57dp"

        android:visibility="gone"

        app:layout_constraintBottom_toTopOf="@+id/button"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

- **JAVA File:**

```java
package com.example.pr_14_2;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.ImageView;
```
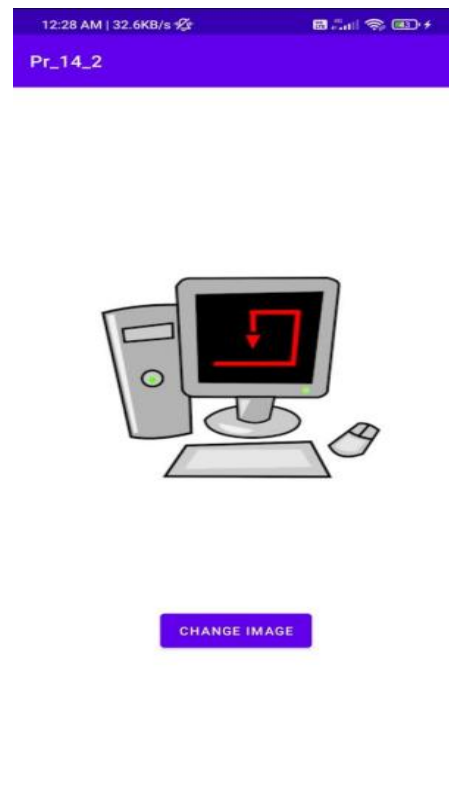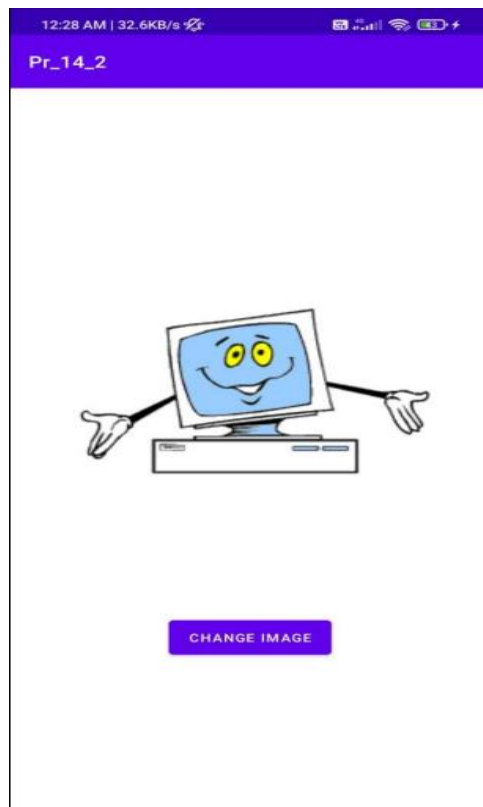
```java
public class MainActivity extends AppCompatActivity {
Button button;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
final ImageView im=(ImageView)findViewById(R.id.img1);
im.setImageResource(R.drawable.a);
button=findViewById(R.id.button);
button.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
im.setImageResource(R.drawable.b);
}
});
}
}
```

- **Output:**

- **Program:**
- **XML File:**

```xml
<?xml version="1.0" encoding="utf-8"?>
<GridView xmlns:android="http://schemas.android.com/apk/res/android"
 android:id="@+id/gridview"
 android:layout_width="match_parent"
 android:layout_height="match_parent"
 android:columnWidth="110dp"
 android:numColumns="auto_fit"
 android:verticalSpacing="10dp"
 android:horizontalSpacing="10dp"
 android:stretchMode="columnWidth"
 android:gravity="center" />
```

- **MainAcivity.java**

```java
package com.example.pr_14_3;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.GridView;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

 @Override

 protected void onCreate(Bundle savedInstanceState) {

 super.onCreate(savedInstanceState);

 setContentView(R.layout.activity_main);

 GridView gv = (GridView) findViewById(R.id.gridview);
```

```java
gv.setAdapter(new imageadapter(this));

gv.setOnItemClickListener(new

AdapterView.OnItemClickListener() {

public void onItemClick(AdapterView<?> parent, View v,

int position, long id) {

Toast.makeText(MainActivity.this, "Image Position: "

+ position, Toast.LENGTH_SHORT).show();

}

});

}

}
```

- **imageadapter.java**

```java
package com.example.pr_14_3;

import android.content.Context;

import android.view.View;

import android.view.ViewGroup;

import android.widget.BaseAdapter;

import android.widget.Button;

import android.widget.GridView;

public class imageadapter extends BaseAdapter {

private Context mContext;

public imageadapter(Context c) {

mContext = c;

}

@Override

public int getCount() {

return thumbImages.length;
```

```java
        }
        @Override
        public Object getItem(int position) {
            return null;
        }
        @Override
        public long getItemId(int position) {
            return 0;
        }
        @Override
        public View getView(int position, View convertView, ViewGroup
        parent) {
            Button imageView = new Button(mContext);
            imageView.setLayoutParams(new GridView.LayoutParams(350,
            200));
            imageView.setText(thumbImages[position]);
            return imageView;
        }
        public String[] thumbImages = {
            "Button 1","Button 2","Button 3","Button 4","Button
        5","Button 6","Button 7","Button 8"
            ,"Button 9","Button 10","Button 11","Button 12","Button
        13","Button 14","Button 15"
        };
    }
```
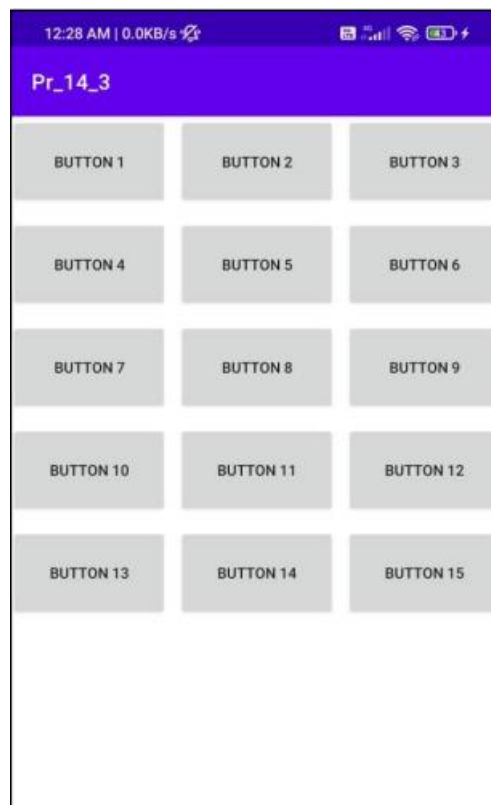
- **Output**



**X.4**

- **XML File:**

```xml
<?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">
 <ScrollView
 android:layout_width="match_parent"
 android:layout_height="match_parent">
 <LinearLayout
 android:layout_width="409dp"
 android:layout_height="729dp"
 android:orientation="vertical"
```

```xml
        tools:layout_editor_absoluteX="1dp"
        tools:layout_editor_absoluteY="1dp">
<TextView
    android:id="@+id/textView2"
    android:layout_width="match_parent"
    android:layout_height="71dp"
    android:gravity="center|center_vertical"
    android:text="TextView 1"
    android:textSize="30sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/textView12"
    android:layout_width="match_parent"
    android:layout_height="71dp"
    android:gravity="center|center_vertical"
    android:text="TextView 2"
    android:textSize="30sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/textView13"
    android:layout_width="match_parent"
    android:layout_height="71dp"
    android:gravity="center|center_vertical"
    android:text="TextView 3"
    android:textSize="30sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/textView14"
    android:layout_width="match_parent"
    android:layout_height="71dp"
    android:gravity="center|center_vertical"
    android:text="TextView 4"
    android:textSize="30sp"
    android:textStyle="bold" />
```

```xml
<TextView
    android:id="@+id/textView15"
    android:layout_width="match_parent"
    android:layout_height="71dp"
    android:gravity="center|center_vertical"
    android:text="TextView 5"
    android:textSize="30sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/textView16"
    android:layout_width="match_parent"
    android:layout_height="71dp"
    android:gravity="center|center_vertical"
    android:text="TextView 6"
    android:textSize="30sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/textView17"
    android:layout_width="match_parent"
    android:layout_height="71dp"
    android:gravity="center|center_vertical"
    android:text="TextView 7"
    android:textSize="30sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/textView18"
    android:layout_width="match_parent"
    android:layout_height="71dp"
    android:gravity="center|center_vertical"
    android:text="TextView 8"
    android:textSize="30sp"
    android:textStyle="bold" />
<TextView
    android:id="@+id/textView19"
```

```xml
android:layout_width="match_parent"
android:layout_height="71dp"
android:gravity="center|center_vertical"
android:text="TextView 9"
android:textSize="30sp"
android:textStyle="bold" />
<TextView
android:id="@+id/textView20"
android:layout_width="match_parent"
android:layout_height="71dp"
android:gravity="center|center_vertical"
android:text="TextView 10"
android:textSize="30sp"
android:textStyle="bold" />
<TextView
android:id="@+id/textView21"
android:layout_width="match_parent"
android:layout_height="71dp"
android:gravity="center|center_vertical"
android:text="TextView 11"
android:textSize="30sp"
android:textStyle="bold" />
<TextView
android:id="@+id/textView22"
android:layout_width="match_parent"
android:layout_height="71dp"
android:gravity="center|center_vertical"
android:text="TextView 12"
android:textSize="30sp"
android:textStyle="bold" />
<TextView
android:id="@+id/textView23"
android:layout_width="match_parent"
android:layout_height="71dp"
```

```
        android:gravity="center|center_vertical"
        android:text="TextView 13"
        android:textSize="30sp"
        android:textStyle="bold" />
    </LinearLayout>
    </ScrollView>
</androidx.constraintlayout.widget.ConstraintLayout>
```

- **Output:**