

# APP DEVELOPMENT

## Lab Programs WEEK(1-3)

A.BINDU PRIYANKA

18131A0501

CSE-1

1.Develop an application that uses Layout Managers and event listeners.

### First JAVA File

```
package com.example.detailsform_bindupriyanka;
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Spinner;
public class MainActivity extends Activity {
    EditText e1,e2;
    Button bt;
    Spinner s;
    String [] dept_array={"CSE","ECE","IT","Mech","Civil"};
    String name,reg,dept;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        e1= (EditText) findViewById(R.id.editText);
        e2= (EditText) findViewById(R.id.editText2);
        bt= (Button) findViewById(R.id.button);
        s= (Spinner) findViewById(R.id.spinner);
        ArrayAdapter adapter= new
        ArrayAdapter (MainActivity.this,android.R.layout.simple_spinner_item,dept_array)
        ;
```

```

s.setAdapter(adapter);
bt.setOnClickListener(new View.OnClickListener() {
    public void onClick(View v) {
        name=e1.getText().toString();
        reg=e2.getText().toString();
        dept=s.getSelectedItem().toString();
        Intent i = new Intent(MainActivity.this,MainActivity2.class);
        i.putExtra("name_key", name);
        i.putExtra("reg_key", reg);
        i.putExtra("dept_key", dept);
        startActivity(i);
    }
});
}
}

```

## XML File:

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="100dp">
        <TextView
            android:id="@+id/textView"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="30dp"
            android:text="Details Form - Bindu Priyanka"
            android:textSize="25sp"
            android:gravity="center"/>
        </LinearLayout>
        <GridLayout
            android:id="@+id/gridLayout"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_marginTop="100dp"
            android:layout_marginBottom="200dp"
            android:columnCount="2"
            android:rowCount="3">
            <TextView
                android:id="@+id/textView1"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"

```

```

        android:layout_margin="10dp"
        android:layout_row="0"
        android:layout_column="0"
        android:text="Name"
        android:textSize="20sp"
        android:gravity="center"/>
<EditText
    android:id="@+id/editText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:layout_row="0"
    android:layout_column="1"
    android:ems="10"/>
<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:layout_row="1"
    android:layout_column="0"
    android:text="Reg.No"
    android:textSize="20sp"
    android:gravity="center"/>
<EditText
    android:id="@+id/editText2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:layout_row="1"
    android:layout_column="1"
    android:inputType="number"
    android:ems="10"/>
<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:layout_row="2"
    android:layout_column="0"
    android:text="Dept"
    android:textSize="20sp"
    android:gravity="center"/>
<Spinner
    android:id="@+id/spinner"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:layout_row="2"

```

```

        android:layout_column="1"
        android:spinnerMode="dropdown"/>
</GridLayout>
<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentBottom="true"
    android:layout_centerInParent="true"
    android:layout_marginBottom="150dp"
    android:text="Submit"/>
</RelativeLayout>

```

## Mainactivity2 JAVA File

```

package com.example.detailsform_bindupriyanka;
import android.content.Intent;
import android.app.Activity;
import android.os.Bundle;
import android.widget.TextView;
public class MainActivity2 extends Activity {
    TextView t1,t2,t3;
    String name,reg,dept;@Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        t1= (TextView) findViewById(R.id.textView1);
        t2= (TextView) findViewById(R.id.textView2);
        t3= (TextView) findViewById(R.id.textView3);
        Intent i = getIntent();
        name=i.getStringExtra("name_key");
        reg=i.getStringExtra("reg_key");
        dept=i.getStringExtra("dept_key");
        t1.setText(name);
        t2.setText(reg);
        t3.setText(dept);
    }
}

```

## XML2 File

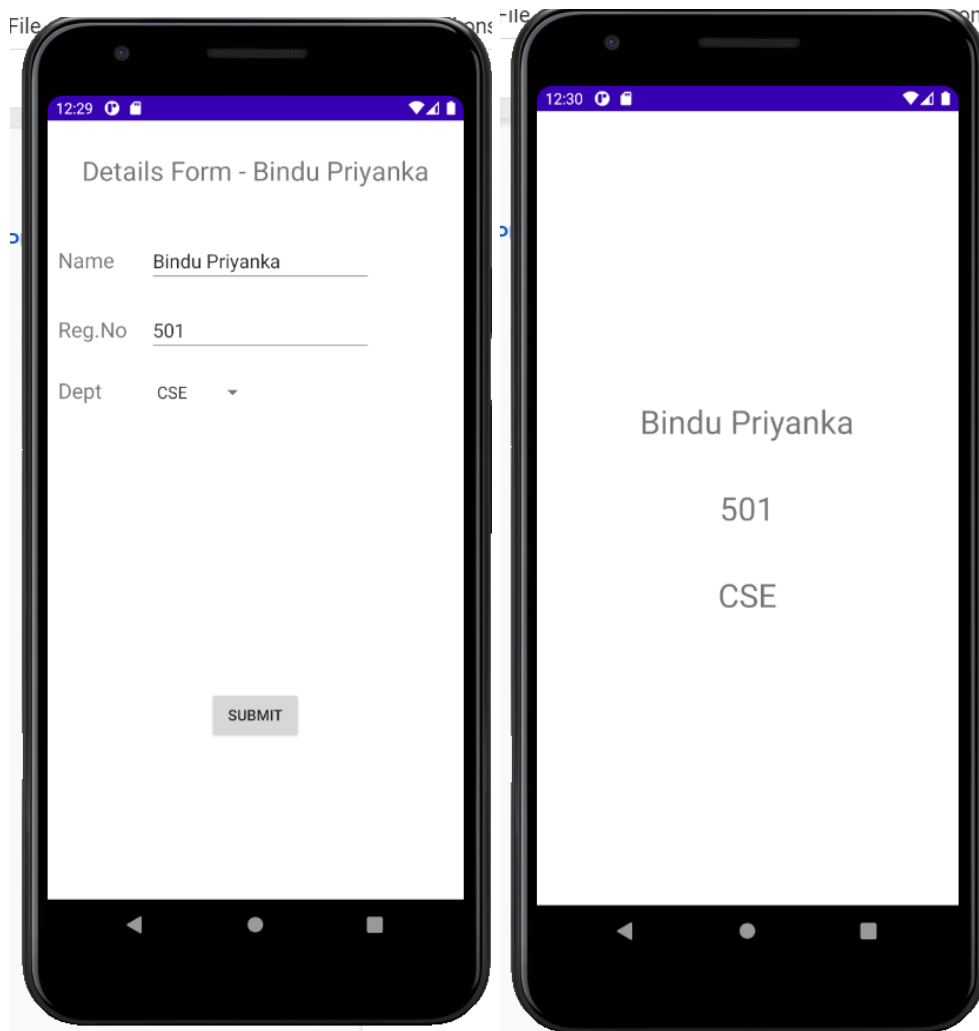
```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

```

```
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context="com.example.detailsform_bindupriyanka"
android:orientation="vertical"
android:gravity="center">
<TextView
    android:id="@+id/textView1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="20dp"
    android:text="New Text"
    android:textSize="30sp"/>
<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="20dp"
    android:text="New Text"
    android:textSize="30sp"/>
<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="20dp"
    android:text="New Text"
    android:textSize="30sp"/>
</LinearLayout>
```

## OUTPUT:



2.Develop an application that uses GUI components, Font and Colors

### JAVA File:

```
package com.example.heybindu;  
import android.app.Activity;  
import android.graphics.*;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.TextView;
```

```

import com.example.heybindu.R;
public class MainActivity extends Activity
{
    int ch=1;
    float font=30;
    public void onCreate(Bundle savedInstanceState){
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        final TextView t= (TextView) findViewById(R.id.textView);
        Button b1= (Button) findViewById(R.id.button1);
        b1.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                t.setTextSize(font);
                font = font + 5;
                if (font == 50)
                    font = 30;
            }
        });
        Button b2= (Button) findViewById(R.id.button2);
        b2.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                switch (ch) {
                    case 1:
                        t.setTextColor(Color.RED);
                        break;
                    case 2:
                        t.setTextColor(Color.GREEN);
                        break;
                    case 3:
                        t.setTextColor(Color.BLUE);
                        break;
                    case 4:
                        t.setTextColor(Color.CYAN);
                        break;
                    case 5:
                        t.setTextColor(Color.YELLOW);
                        break;
                    case 6:
                        t.setTextColor(Color.MAGENTA);
                        break;
                }
                ch++;
                if (ch == 7)
                    ch = 1;
            }
        });
    }
}

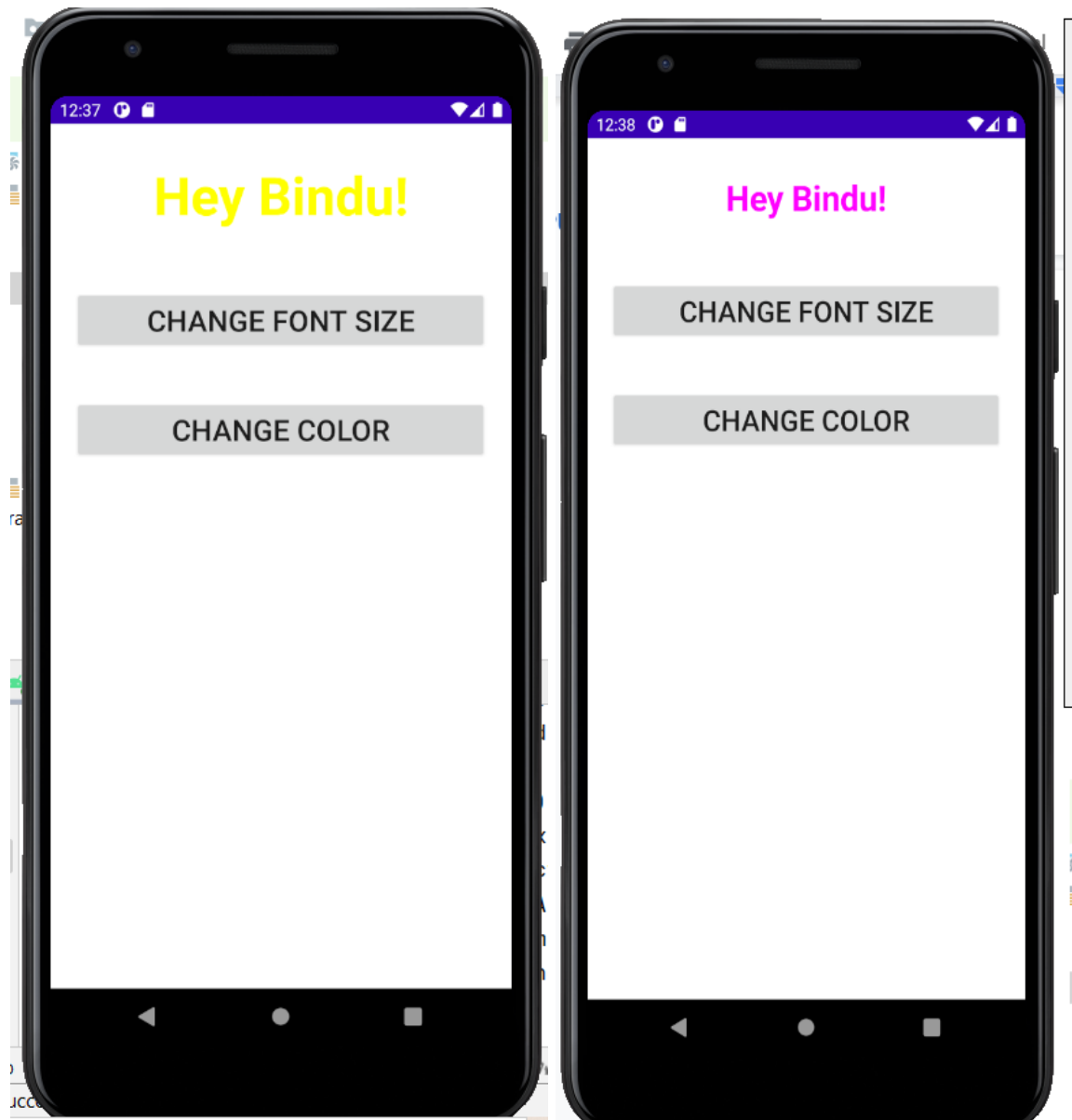
```

## XML File:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent">
    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="30dp"
        android:gravity="center"
        android:text="Hey Bindu!"
        android:textSize="25sp"
        android:textStyle="bold" />
    <Button
        android:id="@+id/button1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:gravity="center"
        android:text="Change font size"
        android:textSize="25sp" />
    <Button
        android:id="@+id/button2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:gravity="center"
        android:text="Change color"
        android:textSize="25sp" />
</LinearLayout>
```

## Output:





3. Develop a native calculator application.

**JAVA File:**

```
package com.example.binducalculator;  
import android.app.Activity;  
import android.os.Bundle;
```

```

import android.text.TextUtils;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends Activity implements OnClickListener
{
    EditText Num1;
    EditText Num2;
    Button Add;
    Button Sub;
    Button Mul;
    Button Div;
    TextView Result;
    public void onCreate(Bundle savedInstanceState)
    {super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Num1 = (EditText) findViewById(R.id.editText1);
        Num2 = (EditText) findViewById(R.id.editText2);
        Add = (Button) findViewById(R.id.Add);
        Sub = (Button) findViewById(R.id.Sub);
        Mul = (Button) findViewById(R.id.Mul);
        Div = (Button) findViewById(R.id.Div);
        Result = (TextView) findViewById(R.id.textView);
        Add.setOnClickListener(this);
        Sub.setOnClickListener(this);
        Mul.setOnClickListener(this);
        Div.setOnClickListener(this);
    }
    public void onClick (View v)
    {
        float num1 = 0;
        float num2 = 0;
        float result = 0;
        String oper = "";
        if (TextUtils.isEmpty(Num1.getText().toString()) ||
            TextUtils.isEmpty(Num2.getText().toString()))
            return;
        num1 = Float.parseFloat(Num1.getText().toString());
        num2 = Float.parseFloat(Num2.getText().toString());
        switch (v.getId())
        {
            case R.id.Add:
                oper = "+";
                result = num1 + num2;
                break;
            case R.id.Sub:
                oper = "-";

```

```

        result = num1 - num2;
        break;
    case R.id.Mul:
        oper = "*";
        result = num1 * num2;
        break;
    case R.id.Div:
        oper = "/";
        result = num1 / num2;
        break;
    default:
        break;
    }
    Result.setText(num1 + " " + oper + " " + num2 + " = " + result);
}
}

```

## XML File:

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_margin="20dp">
    <LinearLayout
        android:id="@+id/linearLayout1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp">
        <EditText
            android:id="@+id/editText1"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:inputType="numberDecimal"
            android:textSize="20sp" />
        <EditText
            android:id="@+id/editText2"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:inputType="numberDecimal"

```

```

        android:textSize="20sp" />
</LinearLayout>
<LinearLayout
    android:id="@+id/linearLayout2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="20dp">
    <Button
        android:id="@+id/Add"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="+"
        android:textSize="30sp"/>
    <Button
        android:id="@+id/Sub"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="-"
        android:textSize="30sp"/>
    <Button
        android:id="@+id/Mul"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="*"
        android:textSize="30sp"/>
    <Button
        android:id="@+id/Div"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="/"
        android:textSize="30sp"/>
</LinearLayout>
<TextView
    android:id="@+id/textView"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="50dp"
    android:text="Bindu The Answer is"
    android:textSize="30sp"
    android:gravity="center"/>
</LinearLayout>

```

**Output:**

