

Mobile Application Development Lab

(20 MCA 243)

LAB RECORD

*Submitted in partial fulfillment of the requirements for the award of
the degree of Master of Computer Applications of A P J Abdul Kalam
Technological University*

Submitted by:

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MASTER OF COMPUTER APPLICATIONS

ST. JOSEPH'S COLLEGE OF ENGINEERING AND TECHNOLOGY, PALAI
CHOONDACHERRY P.O, KOTTAYAM
KERALA
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ST. JOSEPH' S COLLEGE OF ENGINEERING AND TECHNOLOGY, PALAI

(An ISO 9001: 2008 Certified College)

CHOONDACHERRY P.O, KOTTAYAM KERALA



CERTIFICATE

*This is to certify that the Mobile Application Development Lab Record (20 MCA 243) submitted by **Jomon Sebastian** student of **Third** semester **MCA** at **ST. JOSEPH'S COLLEGE OF ENGINEERING AND TECHNOLOGY, PALAI** in partial fulfilment for the award of Master of Computer Applications is a bonafide record of the lab work carried out by him under our guidance and supervision. This record in any form has not been submitted to any other University or Institute for any purpose.*

Mr. Akhil Sekharan
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Submitted for the End Semester Examination held on _____

Examiner 1:

Examiner 2:

DECLARATION

I **Jomon Sebastian**, do hereby declare that the *Mobile Application Development Lab Record (20 MCA 243)* is a record of work carried out under the guidance **Mr. Akhil Sekharan**, Asst. Professor, Department of MCA, SJ CET, Palai as per the requirement of the curriculum of Master of Computer Applications Programme of A P J Abdul Kalam Technological University, Thiruvananthapuram. Further, I also declare that this record has not been submitted, full or part thereof, in any University / Institution for the award of any Degree / Diploma.

Place: Choondacherry
Date :

Jomon Sebastian
(SJC21MCA-2026)

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1.Design a Login Page

PROGRAM

Activity_main.xml

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

<android.support.constraint.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">

<LinearLayout

android:layout_width="match_parent"

android:layout_height="match_parent" android:orientation="vertical">

<EditText

android:id="@+id/editText"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:ems="10"

android:inputType="textPersonName"

android:text="USERNAME"

android:textColor="@color/colorAccent"

tools:layout_editor_absoluteX="85dp"

tools:layout_editor_absoluteY="54dp" />

<EditText

android:id="@+id/editText2"
```

```
android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:ems="10"

android:inputType="textPersonName"

android:text="PASSWORD"

android:textColor="@color/colorAccent"

tools:layout_editor_absoluteX="85dp"

tools:layout_editor_absoluteY="175dp" />

<Button

android:id="@+id/button"

android:layout_width="120dp"

android:layout_height="wrap_content"

android:background="@color/colorPrimary"

android:text="LOGIN"

android:textSize="30sp"

tools:layout_editor_absoluteX="148dp"

tools:layout_editor_absoluteY="303dp" />

</LinearLayout>

</android.support.constraint.ConstraintLayout>
```

Main_Activity.java

```
package com.example.sjcet.c3;

import android.support.v7.app.AppCompatActivity;

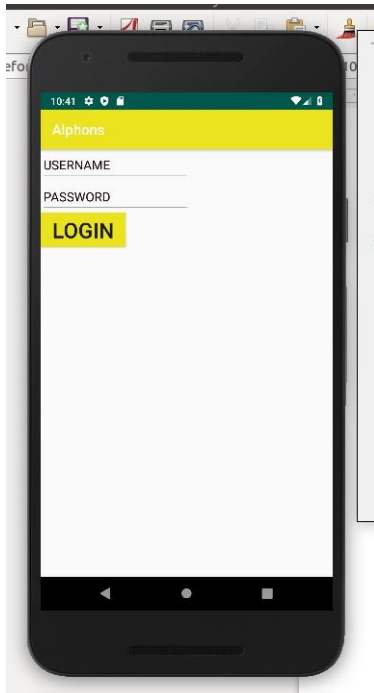
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {
```

@Override

```
protected void onCreate(Bundle savedInstanceState) {  
  
    super.onCreate(savedInstanceState);  
  
    setContentView(R.layout.activity_main);  
  
}  
  
}
```

OUTPUT



2.Change content in the text view on a button click

PROGRAM

Activity_main.xml

<LinearLayout

```
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical"

android:gravity="center"
xmlns:android="http://schemas.android.com/apk/res/android">
<TextView
android:id="@+id/tv"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="ANU"/>
<Button
android:id="@+id/btn1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Change"
android:onClick="change"/>
</LinearLayout>
```

Main_Activity.java

```
package com.example.sjcet.buttonclick2;

import android.os.Bundle;

import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    TextView tv;

    @Override
```

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);  
    tv = findViewById(R.id.tv);  
}  
public void change(View view) {  
    tv.setText("Essa");  
}  
}
```

OUTPUT



3. Read a value from edit text and print it in a text view

PROGRAM

Activity main.xml

```
<LinearLayout

android:layout_height="match_parent"

android:layout_width="match_parent"

android:orientation="vertical"

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

<EditText

android:id="@+id/text1"

android:layout_width="match_parent

android:layout_height="wrap_content"

android:hint="Enter Text"/>

<Button

android:id="@+id/btn"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:text="Change"

android:onClick="Click"

/>

<TextView

android:id="@+id/text2"

android:layout_width="match_parent"

android:layout_height="wrap_content"

/>
```

</LinearLayout>

Main_Activity.java

```
package com.example.sjcet.c3;

import android.support.v7.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    EditText text1;

    TextView text2;

    Button btn;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        text1=(EditText)findViewById(R.id.text1);

        btn=(Button)findViewById(R.id.btn);

        text2=(TextView)findViewById(R.id.text2);

    }

    public void Click(View view) {

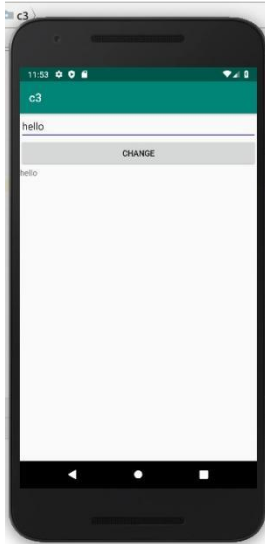
        String content= text1.getText().toString();

        text2.setText(content);

    }
```

```
}
```

OUTPUT



4. change the background color on a button click

PROGRAM

Activity_main.xml

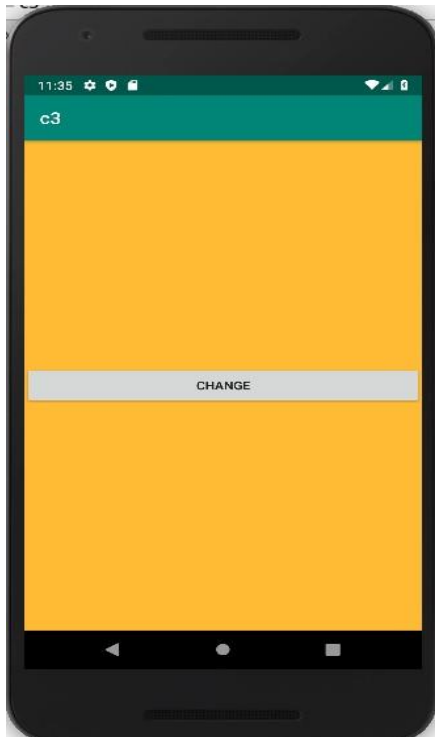
```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_gravity="center">
    <Button
        android:id="@+id/bt"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:onClick="click"
        android:text="CHANGE" />
</LinearLayout>
```

Main_Activity.java

```
package com.example.sjcet.background;
import android.widget.Button;
import android.view.View;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
    View v;
    Button bt;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        v= this.getWindow().getDecorView();
        bt=(Button) findViewById(R.id.bt);
    }
}
```

```
public void click(View view) {  
    v.setBackgroundResource(android.R.color.holo_orange_light);  
}  
}
```

OUTPUT



5. create a simple calculator

PROGRAM

Activity_Main.java

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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">

<EditText
android:id="@+id/ed1"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_marginTop="16dp"
android:ems="10"
android:inputType="textPersonName"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />

<EditText
android:id="@+id/ed2"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_marginTop="24dp"
android:ems="10"
android:inputType="textPersonName"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/ed1" />
```



```
<Button
android:id="@+id/btn1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="132dp"
android:onClick="add"
android:text="+"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/ed2" />
```

```
<Button
android:id="@+id/btn2"
android:layout_width="wrap_content"
android:layout_height="0dp"
android:onClick="sub"
android:text="-"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/btn1" />
```

```
<Button
android:id="@+id/btn3"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="60dp"
android:onClick="mul"
android:text="*"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/btn1" />
```

```
<Button
android:id="@+id/btn4"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="12dp"
```

```
android:onClick="div"
android:text="/"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.067"
app:layout_constraintStart_toEndOf="@+id/btn3"
app:layout_constraintTop_toBottomOf="@+id/btn2" />
```

```
<TextView
    android:id="@+id/txt1"
    android:layout_width="384dp"
    android:layout_height="21dp"
    android:layout_marginTop="80dp"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/ed1" />
</android.support.constraint.ConstraintLayout>
```

Main_Activity.java

```
package com.example.sjcet.simplecalculator;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    TextView tv1;
    EditText et1,et2;
    int ed1,ed2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

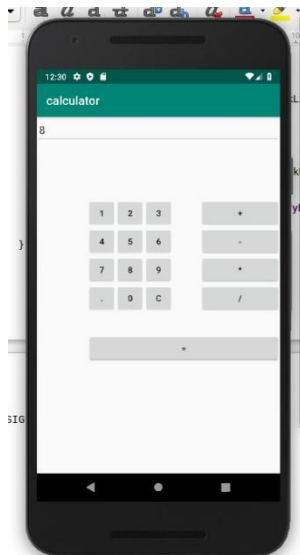
```
}  
public void add(View view) {  
    et1 = (EditText)findViewById(R.id.ed1);  
    et2 = (EditText)findViewById(R.id.ed2);  
    tv1 = (TextView)findViewById(R.id.txt1);  
    String s1 = et1.getText().toString();  
    String s2 = et2.getText().toString();  
    ed1 = Integer.parseInt(s1);  
    ed2 = Integer.parseInt(s2);  
    int sum = ed1 + ed2;  
    tv1.setText(Integer.toString(sum));  
}
```

```
public void sub(View view) {  
    et1 = (EditText)findViewById(R.id.ed1);  
    et2 = (EditText)findViewById(R.id.ed2);  
    tv1 = (TextView)findViewById(R.id.txt1);  
    String s1 = et1.getText().toString();  
    String s2 = et2.getText().toString();  
    ed1 = Integer.parseInt(s1);  
    ed2 = Integer.parseInt(s2);  
    int sum = ed1 - ed2;  
    tv1.setText(Integer.toString(sum));  
}
```

```
public void mul(View view) {  
    et1 = (EditText)findViewById(R.id.ed1);  
    et2 = (EditText)findViewById(R.id.ed2);  
    tv1 = (TextView)findViewById(R.id.txt1);  
    String s1 = et1.getText().toString();  
    String s2 = et2.getText().toString();  
    ed1 = Integer.parseInt(s1);  
    ed2 = Integer.parseInt(s2);  
    int sum = ed1 * ed2;  
    tv1.setText(Integer.toString(sum));  
}
```

```
}  
  
public void div(View view) {  
    et1 = (EditText)findViewById(R.id.ed1);  
    et2 = (EditText)findViewById(R.id.ed2);  
    tv1 = (TextView)findViewById(R.id.txt1);  
    String s1 = et1.getText().toString();  
    String s2 = et2.getText().toString();  
    ed1 = Integer.parseInt(s1);  
    ed2 = Integer.parseInt(s2);  
    int sum = ed1 / ed2;  
    tv1.setText(Integer.toString(sum));  
}  
}
```

OUTPUT



6.create two activity from the button click move to the second activity using intent

PROGRAM

Activity_Main.xml

```
<LinearLayout android:layout_width="match_parent" android:layout_height="match_parent"
android:orientation="vertical"
android:gravity="center"
xmlns:android="http://schemas.android.com/apk/res/android">
<Button
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="MOVE TO NEXT ACTIVITY"
android:id="@+id/bt"
android:onClick="click"
android:gravity="center"/>
</LinearLayout>
```

Activity_main2.xml

```
<LinearLayout android:layout_width="match_parent" android:layout_height="match_parent"
android:orientation="vertical"
android:gravity="center"
android:background="@android:color/holo_blue_light"
xmlns:android="http://schemas.android.com/apk/res/android">
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="WELCOME TO THE SECOND ACTIVITY"
android:id="@+id/tv" />
</LinearLayout>
```

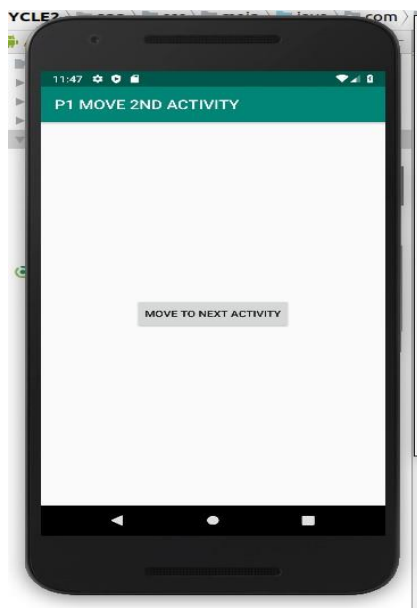
Main_Activity.java

```
package com.example.sjcet.cycle2_1;
import android.content.Intent;
```

```
import android.widget.Button;
import android.view.View;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
    Button bt;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        bt=findViewById(R.id.bt);
    }
    public void click(View view) {
        OpenNewActivity();
    }
    public void OpenNewActivity()
    {
        Intent intent=new Intent(this, Main2Activity.class);
        startActivity(intent);
    }
}
```

Main_Activity2.java

```
package com.example.sjcet.cycle2_1;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
public class Main2Activity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
    }
}
```

OUTPUT

7.Create an activity and move to facebook login page on button click**PROGRAM****Activity_Main.xml**

```
<LinearLayout android:layout_width="match_parent" android:layout_height="match_parent"
android:orientation="vertical"
android:gravity="center"
xmlns:android="http://schemas.android.com/apk/res/android">
<Button

android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="MOVE TO FB PAGE"
android:id="@+id/bt"
android:onClick="click"
android:gravity="center"/>
</LinearLayout>
```

Main_Activity.java

```
package com.example.sjcet.myapplication;
import android.content.Intent;
import android.net.Uri;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        Button btn_Explicit = (Button)findViewById(R.id.bt);
        btn_Explicit.setOnClickListener(new View.OnClickListener() {
```


@Override

```
public void onClick(View view) {
```

```
    Intent intent = new Intent(Intent.ACTION_VIEW,Uri.parse("https://www.facebook.com/"));
```

```
    startActivity(intent);
```

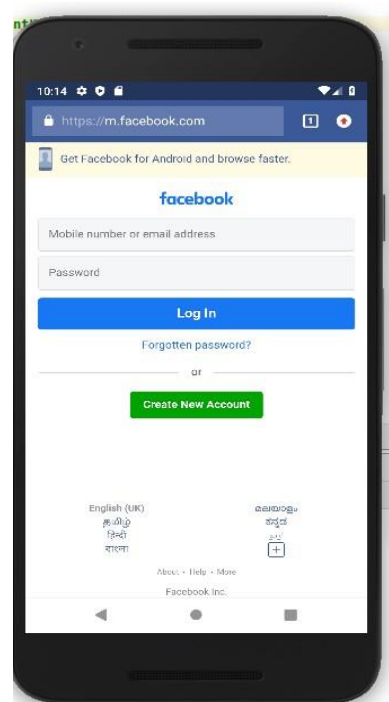
```
}
```

```
});
```

```
}
```

```
}
```

OUTPUT



8.Read message in the first activity and pass it to the 2nd activity on a button click

PROGRAM

Activity_Main.xml

```
<LinearLayout android:layout_width="match_parent" android:layout_height="match_parent"
android:orientation="vertical"
xmlns:android="http://schemas.android.com/apk/res/android">
<EditText
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/et"
android:textColor="@android:color/holo_red_dark"/>
<Button
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="MOVE TO NEXT ACTIVITY"
android:id="@+id/bt"
android:onClick="click"
/>
</LinearLayout>
```

Activity_main2.xml

```
<LinearLayout android:layout_width="match_parent" android:layout_height="match_parent"
android:orientation="vertical"
android:gravity="center"
xmlns:android="http://schemas.android.com/apk/res/android">
<TextView
android:layout_width="match_parent"
android:layout_height="wrap_content"
```

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

```
/
```

```
</LinearLayout>
```

Main_Activity.java

```
package com.example.sjcet.myapplication;
```

```
import android.content.Intent;
```

```
import android.support.v7.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    Button bt;
```

```
    EditText et;
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        bt=findViewById(R.id.bt);
```

```
        et=findViewById(R.id.et);
```

```
    }
```

```
    public void onClick(View v) {
```

```
        String str = et.getText().toString();
```

```
        Intent intent = new Intent(getApplicationContext(), Main2Activity.class);
```

```
        intent.putExtra("message_key", str);
```

```
        startActivity(intent);
```

```
    }
```

```
}
```

Main_Activity2.java

```
package com.example.sjcet.myapplication;

import android.widget.TextView;

import android.content.Intent;

import android.support.v7.app.AppCompatActivity;

import android.os.Bundle;

public class Main2Activity extends AppCompatActivity {

    TextView tv;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main2);

        tv =findViewById(R.id.tv);

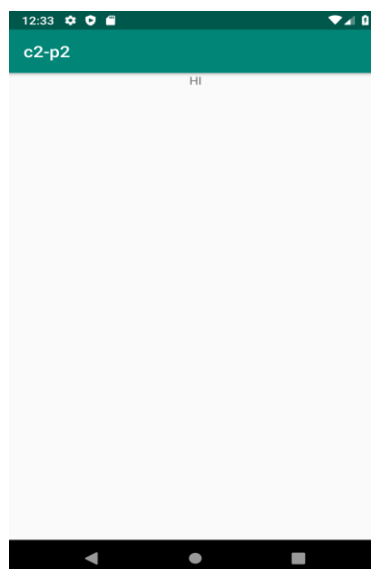
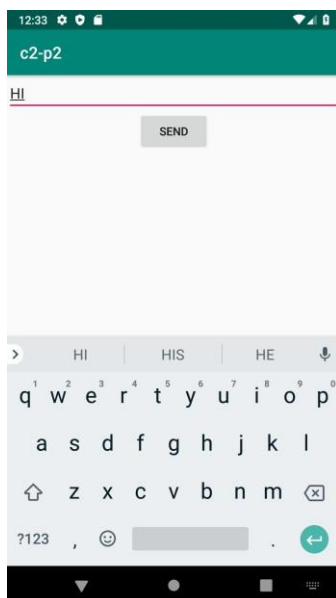
        Intent intent = getIntent();

        String str = intent.getStringExtra("message_key");

        tv.setText(str);

    }

}
```

OUTPUT

9.create a registration page with full validation and pass the information to the second activity(using shared preference)

Mandatory fields : fname,lname,gender,email,phone number,password,dob(date picker)

PROGRAM

Activity_Main.xml

```
<?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:id="@+id/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical" >
    <EditText
        android:id="@+id/editTextName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Enter First Name"
        android:inputType="textPersonName" />
    <EditText
        android:id="@+id/editTextlName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Enter Last Name"
        android:inputType="textPersonName" />
    <EditText
        android:id="@+id/editTextgender"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Enter Gender"
```

```
android:inputType="textPersonName" />
<EditText
android:id="@+id/editTextEmail"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:ems="10"
android:hint="Enter Email"
android:inputType="textPersonName" />
<EditText
android:id="@+id/editTextMobile"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:ems="10"
android:hint="Enter Mobile Number"
android:inputType="textEmailAddress" />
<EditText
android:id="@+id/editTextDob"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:ems="10"
android:hint="Enter Date of Birth (DD/MM/YYYY)"
android:inputType="date" />
<EditText
android:id="@+id/editTextpassword"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:ems="10"
android:hint="Enter Password"
android:inputType="textPassword" />

<Button
android:id="@+id/buttonSubmit"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="Submit" />
</LinearLayout>
```

Activity_Main2.xml

```
<LinearLayout android:layout_width="match_parent" android:layout_height="match_parent"
android:orientation="vertical"
android:gravity="center"
xmlns:android="http://schemas.android.com/apk/res/android">
<TextView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/tv"
/>
<TextView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/tv1"
/>
<TextView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/tv2"
/>
<TextView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/tv3"
/>

<TextView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/tv4"
/>
<TextView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/tv5"
/>
<TextView
```



```
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/tv6"
/>
</LinearLayout>
```

Main_Activity.java

```
import android.content.Intent;
import android.net.Uri;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.text.TextUtils;
import android.util.Patterns;
import android.view.View;
import android.widget.DatePicker;
import android.widget.EditText;
import android.widget.Button;
import android.widget.Toast;
import android.content.SharedPreferences;

public class MainActivity extends AppCompatActivity {
    EditText editTextName, editTextlName, editTextEmail, editTextMobile,
    editTextDob, editTextgender, editTextpassword;
    Button buttonSubmit;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        buttonSubmit = findViewById(R.id.buttonSubmit);
        editTextName = findViewById(R.id.editTextName);
        editTextlName = findViewById(R.id.editTextlName);
        editTextEmail = findViewById(R.id.editTextEmail);
        editTextMobile = findViewById(R.id.editTextMobile);
        editTextDob = findViewById(R.id.editTextDob);
```

```
editTextgender =findViewById(R.id.editTextgender);
editTextpassword =findViewById(R.id.editTextpassword);
buttonSubmit.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        checkDataEntered();
        SharedPreferences mypref=getSharedPreferences("activity_main2.xml",0);
        SharedPreferences.Editor editor=mypref.edit();//only write editor
        editor.putString("fname",editTextName.getText().toString()); //bundle the data
        editor.putString("lname",editTextlName.getText().toString());
        editor.putString("gender",editTextgender.getText().toString());
        editor.putString("phone",editTextMobile.getText().toString());
        editor.putString("pwd",editTextpassword.getText().toString());
        editor.putString("email",editTextEmail.getText().toString());
        editor.putString("dob",editTextDob.getText().toString());
        editor.commit();
        // String str = editTextName.getText().toString();
        //String str1 = editTextName.getText().toString();
        Intent intent = new Intent(getApplicationContext(), Main2Activity.class);
        intent.putExtra("fname",editTextName.getText().toString());
        intent.putExtra("lname",editTextlName.getText().toString());
        intent.putExtra("gender",editTextgender.getText().toString());
        intent.putExtra("phone",editTextMobile.getText().toString());
        intent.putExtra("pwd",editTextpassword.getText().toString());
        intent.putExtra("email",editTextEmail.getText().toString());
        intent.putExtra("dob",editTextDob.getText().toString());
        startActivity(intent);
    }
});
}

boolean isEmail(EditText text) {
    CharSequence email = text.getText().toString();
    return (!TextUtils.isEmpty(email) &&
    Patterns.EMAIL_ADDRESS.matcher(email).matches());
}
```

```
}  
boolean isEmpty(EditText text) {  
    CharSequence str = text.getText().toString();  
    return TextUtils.isEmpty(str);  
}  
void checkDataEntered() {  
    if (isEmpty(editTextName)) {  
        Toast t = Toast.makeText(this, "You must enter first name to register!",  
            Toast.LENGTH_SHORT);  
        t.show();  
    }  
    if (isEmpty(editTextlName)) {  
        editTextlName.setError("Last name is required!");  
    }  
    if (isEmpty(editTextMobile)) {  
        editTextMobile.setError("mobile number is required!");  
    }  
    if (isEmpty(editTextgender)) {  
        editTextgender.setError("Gender is required!");  
    }  
    if (isEmpty(editTextpassword)) {  
        editTextpassword.setError("Password is required!");  
    }  
    if (isEmpty(editTextDob)) {  
        editTextDob.setError("DOB is required!");  
    }  
    if (isEmail(editTextEmail) == false) {  
        editTextEmail.setError("Enter valid email!");  
    }  
    }  
}
```

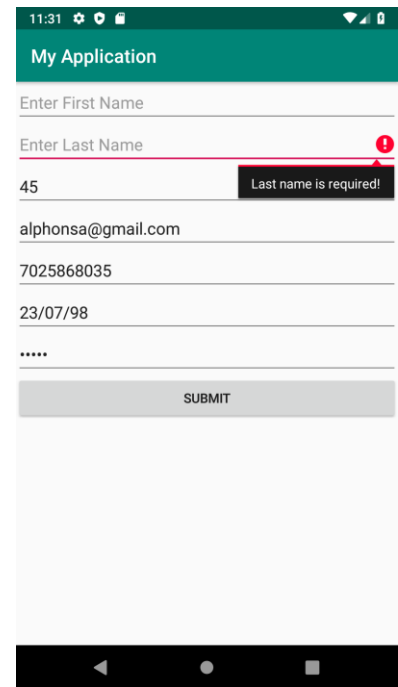
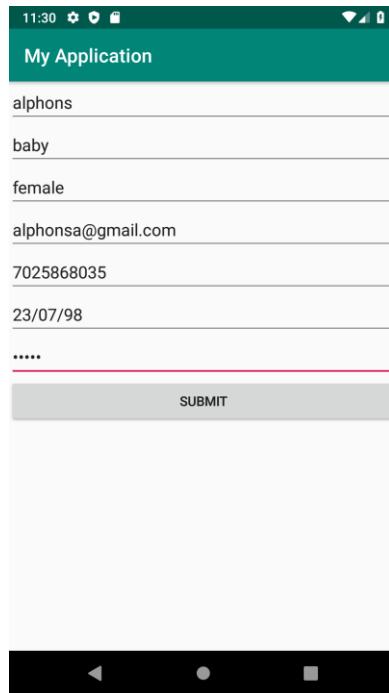
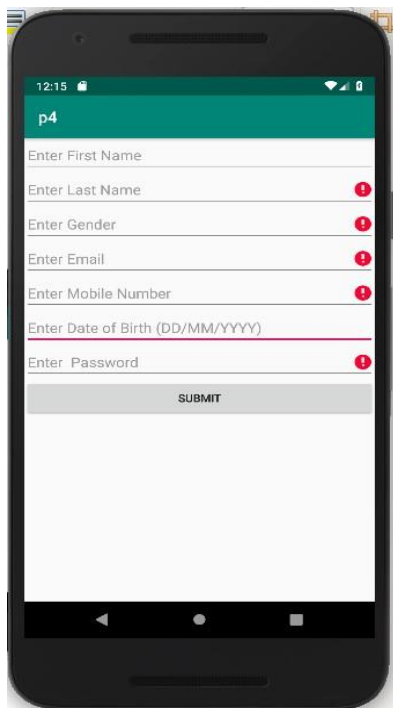
Main_Activity2.java

```
import android.content.SharedPreferences;
```

```
import android.widget.TextView;
import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
public class Main2Activity extends AppCompatActivity {
    TextView tv,tv1,tv2,tv3,tv4,tv5,tv6;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        tv=findViewById(R.id.tv);
        tv1=findViewById(R.id.tv1);
        tv2=findViewById(R.id.tv2);
        tv3=findViewById(R.id.tv3);
        tv4=findViewById(R.id.tv4);
        tv5=findViewById(R.id.tv5);
        tv6=findViewById(R.id.tv6);
        Intent intent = getIntent();
        SharedPreferences mypref=getSharedPreferences("activity_main2.xml",0);
        String str = mypref.getString("fname",null);
        String str1 = mypref.getString("lname",null);
        String str2 = mypref.getString("gender",null);
        String str3 = mypref.getString("phone",null);
        String str4 = mypref.getString("pwd",null);
        String str5 = mypref.getString("email",null);
        String str6 = mypref.getString("dob",null);
        tv.setText(str);
        tv1.setText(str1);
        tv2.setText(str2);
        tv3.setText(str3);
        tv4.setText(str4);
        tv5.setText(str5);
        tv6.setText(str6);
    }
}
```

```
}
```

OUTPUT



10. login and registration

PROGRAM

Activity_home.xml

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

<android.support.constraint.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=".home">

<TextView
android:id="@+id/textView"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="HOME"
tools:layout_editor_absoluteX="163dp"
tools:layout_editor_absoluteY="40dp" />
</android.support.constraint.ConstraintLayout>
```

Activity_Main.xml

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

<android.support.constraint.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/btn1"
android:layout_width="100dp"
```

```
android:layout_height="51dp"
android:layout_marginTop="24dp"
android:onClick="register"
android:text="Register"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/btn2" />
```

```
<Button
android:id="@+id/btn2"
android:layout_width="79dp"
android:layout_height="wrap_content"
android:layout_marginTop="24dp"
android:layout_marginBottom="24dp"
android:onClick="login"
android:text="Login"
app:layout_constraintBottom_toTopOf="@+id/btn1"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/edpass" />
```

```
<EditText
android:id="@+id/eduname"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_marginTop="24dp"
android:ems="10"
android:hint="username"
android:inputType="textPersonName"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

```
<EditText
```

```
android:id="@+id/edpass"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_marginTop="24dp"
android:ems="10"
android:hint="password"
android:inputType="textPersonName"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/eduname" />

</android.support.constraint.ConstraintLayout>
```

activity_register.xml

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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=".register">

<EditText
android:id="@+id/edtxt1"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_marginTop="24dp"
android:layout_marginBottom="24dp"
android:ems="10"
android:hint="Name"
android:inputType="textPersonName"
app:layout_constraintBottom_toTopOf="@+id/edtxt2"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```



```
<EditText
android:id="@+id/edtxt2"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_marginTop="24dp"
android:layout_marginBottom="24dp"
android:ems="10"
android:hint="Address"
android:inputType="textPersonName"
app:layout_constraintBottom_toTopOf="@+id/edtxt3"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/edtxt1" />
```

```
<EditText
android:id="@+id/edtxt3"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_marginBottom="24dp"
android:ems="10"
android:hint="email"
android:inputType="textPersonName"
app:layout_constraintBottom_toTopOf="@+id/edtxt4"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent" />
```

```
<EditText
android:id="@+id/edtxt4"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_marginTop="24dp"
android:ems="10"
android:hint="phone no"
```

```
android:inputType="textPersonName"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/edt3" />
</android.support.constraint.ConstraintLayout>
```

home.java

```
package com.example.sjcet.constlayout;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;

public class home extends AppCompatActivity {

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

Main_Activity.java

```
package com.example.sjcet.constlayout;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```
setContentView(R.layout.activity_main);
}

public void register(View view) {
    Intent i = new Intent(MainActivity.this, register.class);
    startActivity(i);
}

public void login(View view) {
    EditText E1, E2;
    E1 =(EditText) findViewById(R.id.eduname);
    E2 = (EditText) findViewById(R.id.edpass);

    if ((E1.getText().toString().equals("admin")) && (E2.getText().toString().equals("admin")))
    {
        Intent i = new Intent(MainActivity.this,home.class);
        startActivity(i);
    }

    else
    {
        Toast.makeText(this, "Invalid username or password", Toast.LENGTH_SHORT).show();
    }

}
}
```

Register.java

```
package com.example.sjcet.loginvali;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;
```

```
public class register extends AppCompatActivity {

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

    public void rgstr(View view) {
        EditText E1,E2,E3,E4,E5;
        E1 = (EditText) findViewById(R.id.edtxt1);
        E2 = (EditText) findViewById(R.id.edtxt2);
        E3 = (EditText) findViewById(R.id.edtxt3);
        E4 = (EditText) findViewById(R.id.edtxt4);
        E5 = (EditText) findViewById(R.id.edtxt5);
        String MobilePattern = "[0-9]{10}";

        if(E1.length() == 0) {
            Toast.makeText(this, "Enter name", Toast.LENGTH_SHORT).show();
        }

        else if(E2.length() == 0) {
            Toast.makeText(this, "Enter Address", Toast.LENGTH_SHORT).show();
        }

        else if(E3.length() == 0) {
            Toast.makeText(this, "Enter Email", Toast.LENGTH_SHORT).show();
        }

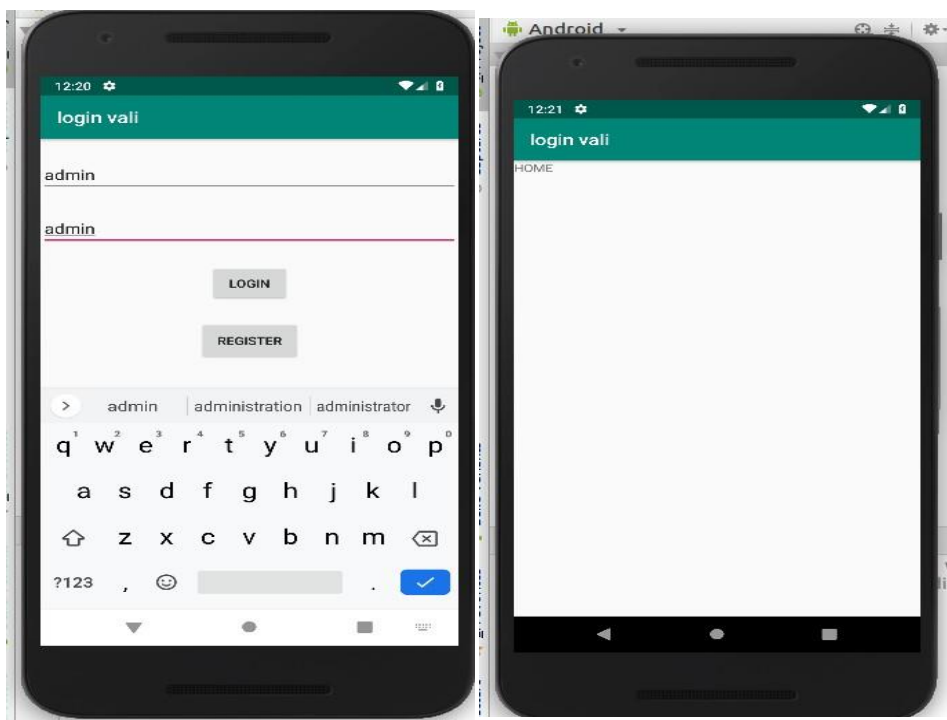
        else if(E4.length() == 0) {
            Toast.makeText(this, "Enter phone no", Toast.LENGTH_SHORT).show();
        }

        else if((E4.length() != 10) && (!E5.getText().toString().matches(MobilePattern))) {
```

```
Toast.makeText(this, "enter valid phone number", Toast.LENGTH_SHORT).show();
}

else if(E5.length() == 0) {
    Toast.makeText(this, "Enter valid password", Toast.LENGTH_SHORT).show();
}
else if(E5.length() < 8) {
    Toast.makeText(this, "Password should be minimum 8 characters",
    Toast.LENGTH_SHORT).show();
}
else{
    Toast.makeText(this, "resgistered successfully", Toast.LENGTH_SHORT).show();
}

}
}
```

OUTPUT

11.List view

PROGRAM

Main_activity.java

```
package com.example.sjcet.listview;

import android.support.v7.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.AdapterView;

import android.widget.ListView;

public class MainActivity extends AppCompatActivity {

    ListView lv;

    @Override

    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        lv=(ListView)findViewById(R.id.lv);

        String[] courses={"MCA","MBA","BBA","BCA"};

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

        lv.setAdapter(adapter);

    }

}
```

Activity_Main.xml

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

<android.support.constraint.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

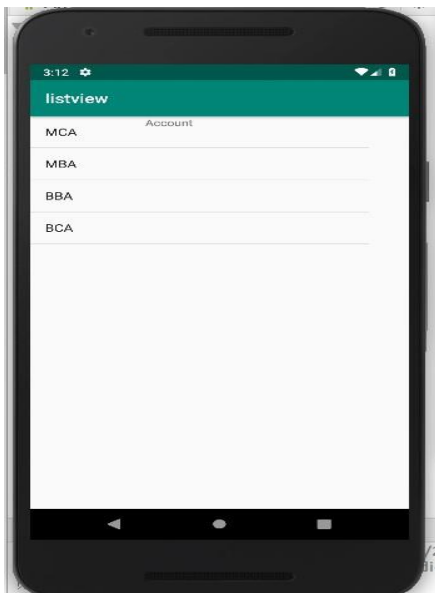
xmlns:tools="http://schemas.android.com/tools"
```

```
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">
<TextView
android:id="@+id/textView2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintLeft_toLeftOf="parent"
app:layout_constraintRight_toRightOf="parent"
app:layout_constraintTop_toTopOf="parent" />
<TextView
android:id="@+id/textView"
android:layout_width="162dp"
android:layout_height="47dp"
android:layout_marginStart="8dp"
android:layout_marginLeft="8dp"
android:layout_marginEnd="8dp"
android:layout_marginRight="8dp"
android:text="Account"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
tools:layout_editor_absoluteY="64dp" />
<ListView
android:id="@+id/lv"
android:layout_width="368dp"
android:layout_height="321dp"
```



```
tools:layout_editor_absoluteX="8dp"  
tools:layout_editor_absoluteY="131dp" />  
</android.support.constraint.ConstraintLayout>
```

OUTPUT



12. List View using Toast

PROGRAM

Activity_Main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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">
<TextView
android:id="@+id/textView2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintLeft_toLeftOf="parent"
app:layout_constraintRight_toRightOf="parent"
app:layout_constraintTop_toTopOf="parent" />
<TextView
android:id="@+id/tv"
android:layout_width="162dp"
android:layout_height="47dp"
android:layout_marginStart="8dp"
android:layout_marginLeft="8dp"
android:layout_marginEnd="8dp"
android:layout_marginRight="8dp"
android:text="Account"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
tools:layout_editor_absoluteY="64dp" />
```

```
<ListView
android:id="@+id/lv"
android:layout_width="368dp"
android:layout_height="321dp"
tools:layout_editor_absoluteX="8dp"
tools:layout_editor_absoluteY="131dp" />
</android.support.constraint.ConstraintLayout>
```

Main_Activity.java

```
package com.example.sjcet.tostlistview;
import android.content.Intent;
import android.net.Uri;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.AdapterView;

import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity implements
AdapterView.OnItemClickListener {
    TextView tv;
    ListView lv;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        tv=(TextView)findViewById(R.id.tv);
        String msg=getIntent().getStringExtra("mykey");// receiving the data
        tv.setText("welcome"+msg);
        lv=(ListView)findViewById(R.id.lv);// display(welcom changing to admin)
```

// listview operation

```
String[] courses={"MCA","MBA","BBA","BCA"};
```

```
ArrayAdapter adapter = new
```

```
ArrayAdapter(this,android.R.layout.simple_list_item_1,courses);
```

```
lv.setAdapter(adapter);
```

// attach listener

```
lv.setOnItemClickListener(this);//implement the method by alt+enter
```

```
}
```

```
@Override
```

```
public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {
```

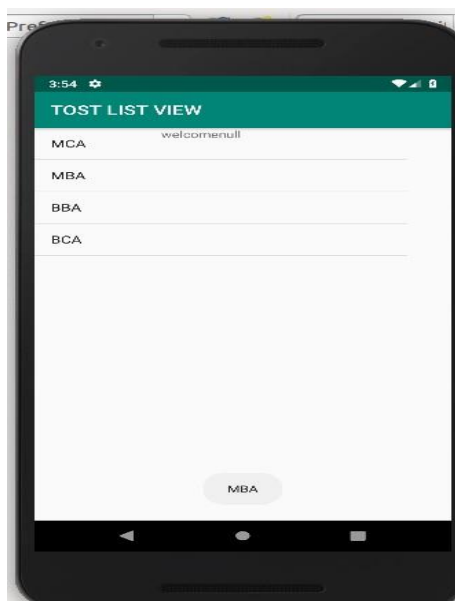
```
String itemname=lv.getItemAtPosition(i).toString();
```

```
Toast.makeText(this,itemname,Toast.LENGTH_SHORT).show();
```

```
}
```

```
}
```

OUTPUT



13. Grid view

PROGRAM

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools"
xmlns:app="http://schemas.android.com/apk/res-auto"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">
<GridView
android:id="@+id/gv"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:columnWidth="100dp"
android:minHeight="100dp"
android:numColumns="auto_fit"
android:stretchMode="columnWidth"
app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintLeft_toLeftOf="parent"
app:layout_constraintRight_toRightOf="parent"
app:layout_constraintTop_toTopOf="parent" />
</android.support.constraint.ConstraintLayout>
```

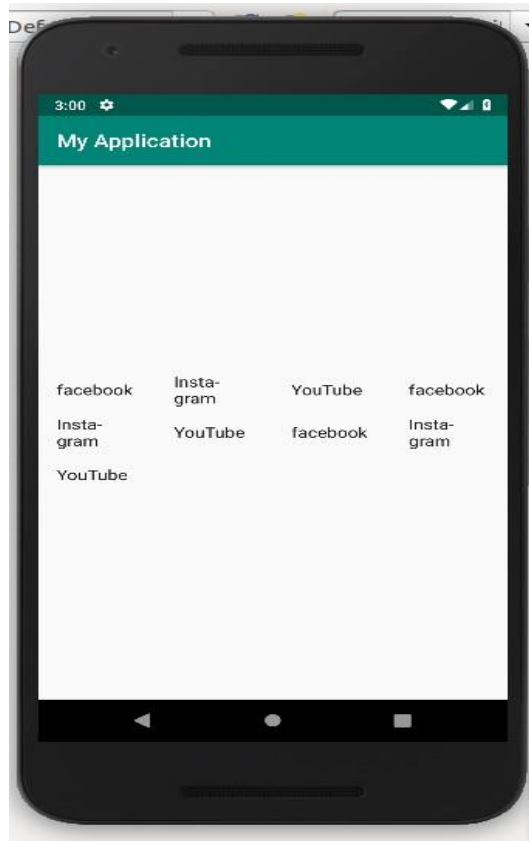
Main_Activity.java

```
package com.example.sjcet.myapplication;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
```

```
import android.widget.AdapterView;
import android.widget.GridView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity implements
AdapterView.OnItemClickListener {
    GridView gridView;
    static final String[] gridViewvalue={
        "facebook","Instagram","YouTube",
        "facebook","Instagram","YouTube",
        "facebook","Instagram","YouTube"
    };
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        gridView=findViewById(R.id.gv);
        ArrayAdapter adapter = new
        ArrayAdapter(this,android.R.layout.simple_list_item_1,gridViewvalue);
        gridView.setAdapter(adapter);
        gridView.setOnItemClickListener(this);
    }
    public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {

        String itemname=gridView.getItemAtPosition(i).toString();
        Toast.makeText(this,itemname,Toast.LENGTH_SHORT).show();
    }
}
```

OUTPUT

14. Option menu

PROGRAM

Activity_Main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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_height="match_parent"
tools:context=".MainActivity">
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Hello World!"
android:id="@+id/tv"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintLeft_toLeftOf="parent"
app:layout_constraintRight_toRightOf="parent"
app:layout_constraintTop_toTopOf="parent" />
</android.support.constraint.ConstraintLayout>
```

Main_Activity.java

```
package com.example.sjcet.contextmenu;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    TextView tv;
```


@Override

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);  
    tv=(TextView)findViewById(R.id.tv);  
    String msg=getIntent().getStringExtra("mykey");// receiving the data  
    tv.setText(msg);                // display(welcom changing to admin)  
}
```

@Override

```
public boolean onCreateOptionsMenu(Menu menu) {  
    getMenuInflater().inflate(R.menu.main_menu,menu); //connecting menu  
    return true;                // changing to true  
}
```

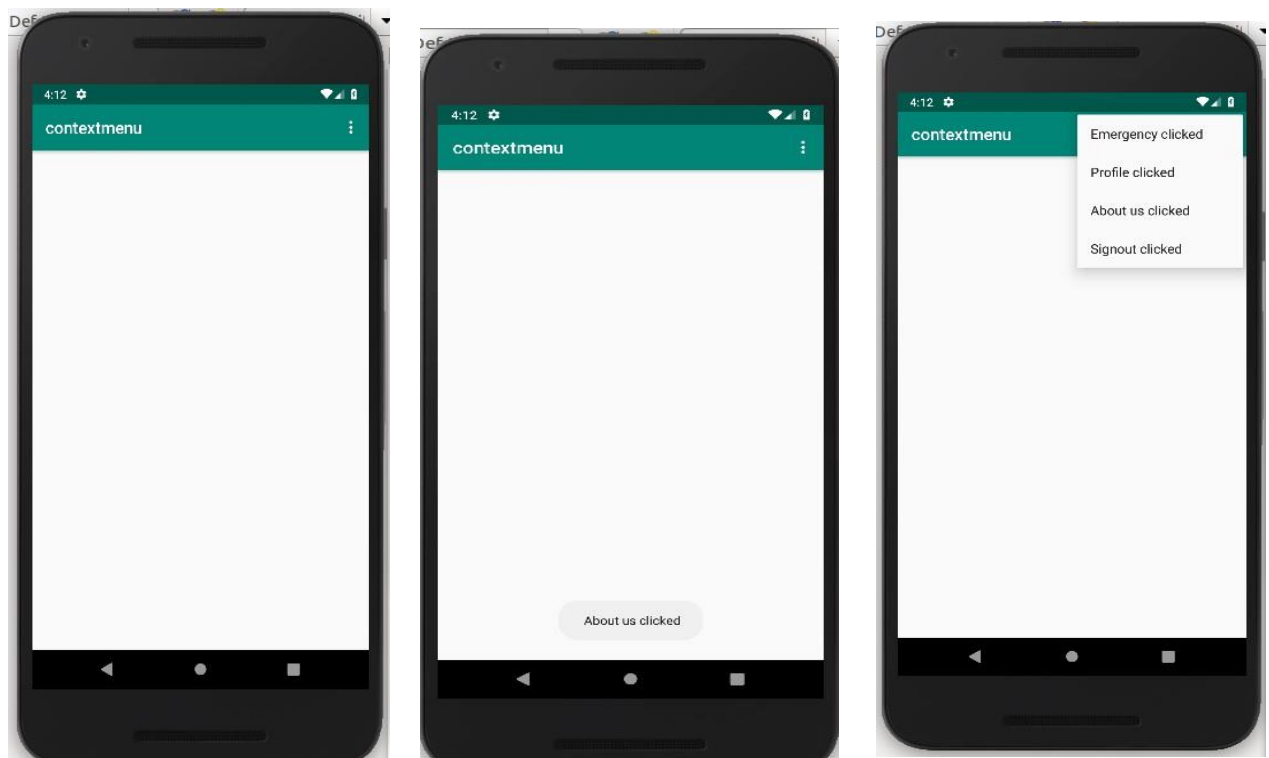
@Override

```
public boolean onOptionsItemSelected(MenuItem item) {  
    switch (item.getItemId()) {  
        case R.id.emergency: //full colon  
            Toast.makeText(this," Emergency clicked",Toast.LENGTH_SHORT).show();  
            break;  
        case R.id.profile:  
            Toast.makeText(this," Profile clicked",Toast.LENGTH_SHORT).show();  
            break;  
        case R.id.aboutus:  
            Toast.makeText(this," About us clicked",Toast.LENGTH_SHORT).show();  
            break;  
        case R.id.signout:  
            Toast.makeText(this," Signout clicked",Toast.LENGTH_SHORT).show();  
            break;  
    }  
    return true;// changing to true  
}
```

Main_Menu.xml

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android">
<item
android:id="@+id/emergency"
android:title="Emergency clicked"/>
<item
android:id="@+id/profile"
android:title="Profile clicked"/>
<item
android:id="@+id/aboutus"
android:title="About us clicked"/>
<item
android:id="@+id/signout"
android:title="Signout clicked"/>
</menu>
```

OUTPUT



15. Context menu

PROGRAM

Activity_Main.Xml

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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">
<TextView
android:id="@+id/text_view"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Click Here"
android:textSize="30dp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintLeft_toLeftOf="parent"
app:layout_constraintRight_toRightOf="parent"
app:layout_constraintTop_toTopOf="parent" />
</android.support.constraint.ConstraintLayout>
```

Main_Actiity.Java

```
package com.example.sjcet.contextmenu;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.ContextMenu;
import android.view.MenuItem;
import android.view.View;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
```

@Override

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);  
    TextView textView=findViewById(R.id.text_view);  
    registerForContextMenu(textView);  
}
```

@Override

```
public void onCreateContextMenu(ContextMenu menu, View v,  
    ContextMenu.ContextMenuInfo menuInfo) {  
    super.onCreateContextMenu(menu, v, menuInfo);  
    getMenuInflater().inflate(R.menu.main_menu,menu);  
}
```

@Override

```
public boolean onContextItemSelected(MenuItem item) {  
    switch (item.getItemId()){  
        case R.id.Emergency:  
            Toast.makeText(this,"Emergency Clicked",Toast.LENGTH_SHORT).show();  
            break;  
        case R.id.profile:  
            Toast.makeText(this,"Profile Clicked",Toast.LENGTH_SHORT).show();  
            break;  
        case R.id.aboutus:  
            Toast.makeText(this,"About Us Clicked",Toast.LENGTH_SHORT).show();  
            break;  
        case R.id.signout:  
            Toast.makeText(this,"Signout Clicked",Toast.LENGTH_SHORT).show();  
            break;  
        default:  
    }  
    return super.onContextItemSelected(item);  
}
```

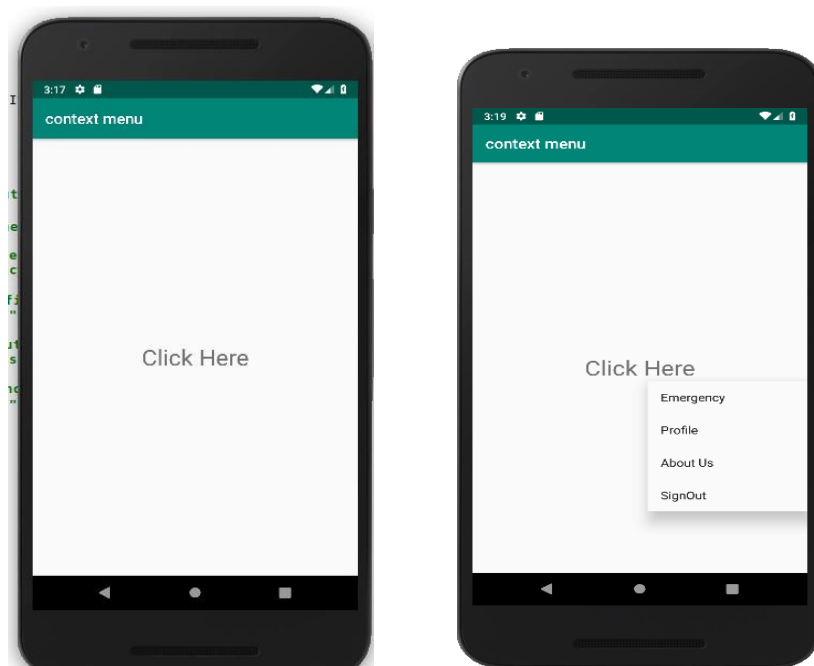
Main_Menu.Xml

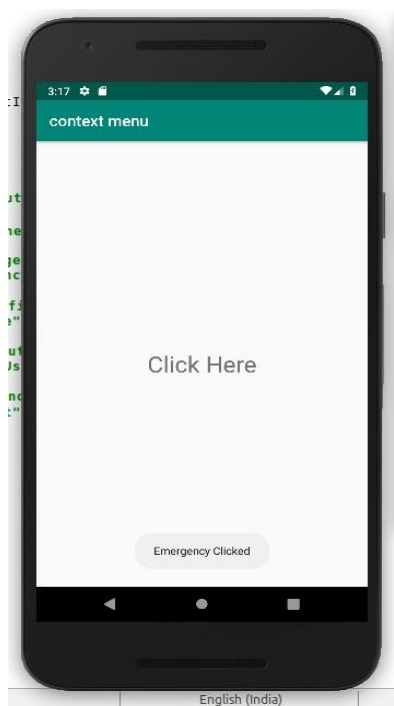
```
<?xml version="1.0" encoding="utf-8"?>

<menu xmlns:android="http://schemas.android.com/apk/res/android">
  <item
    android:id="@+id/Emergency"
    android:title="Emergency"
  />
  <item android:id="@+id/profile"
    android:title="Profile"
  />

  <item android:id="@+id/aboutus"
    android:title="About Us"
  />
  <item android:id="@+id/signout"
    android:title="SignOut"
  />
</menu>
```

OUTPUT





16. Develop an application as a micro project which users SQL database

Activity Main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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">
<EditText
android:id="@+id/ed1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginStart="8dp"
android:layout_marginLeft="8dp"
android:layout_marginTop="8dp"
android:ems="10"
android:hint="name"
android:inputType="textPersonName"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
<EditText
android:id="@+id/ed2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginStart="8dp"
android:layout_marginLeft="8dp"
android:layout_marginTop="36dp"
android:ems="10"
android:hint="Surname"
android:inputType="textPersonName"
app:layout_constraintStart_toStartOf="parent"
```

```
app:layout_constraintTop_toBottomOf="@+id/ed1" />
<EditText
    android:id="@+id/ed3"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginStart="8dp"
    android:layout_marginLeft="8dp"
    android:layout_marginTop="28dp"
    android:ems="10"
    android:hint="marks"
    android:inputType="textPersonName"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/ed2" />
<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="19dp"
    android:onClick="SaveDat"
    android:text="Insert"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/ed3"
    tools:ignore="OnClick" />
<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="96dp"
    android:layout_marginLeft="96dp"
    android:layout_marginTop="19dp"
    android:onClick="read"
    android:text="Read"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/ed3"
```



```
tools:ignore="OnClick" />
<TextView
    android:id="@+id/textView"
    android:layout_width="match_parent"
    android:layout_height="207dp"
    android:layout_marginTop="20dp"
    android:hint="data"
    app:layout_constraintTop_toBottomOf="@+id/button" />
<Button
    android:id="@+id/button3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="192dp"
    android:layout_marginLeft="192dp"
    android:layout_marginTop="19dp"
    android:onClick="update"
    android:text="update"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/ed3"
    tools:ignore="OnClick" />
<Button
    android:id="@+id/button4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="288dp"
    android:layout_marginLeft="288dp"
    android:layout_marginTop="19dp"
    android:onClick="delete"
    android:text="delete"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/ed3"
    tools:ignore="OnClick" />
</android.support.constraint.ConstraintLayout>
```

Main_Menu.Xml

```
package com.example.sjcet.databasepgm;
import android.content.ContentValues;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    EditText Name,Mark,Surname;
    TextView DataV;
    MyDatabase database = new MyDatabase(this) ;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Name = findViewById(R.id.ed1);
        Surname = findViewById(R.id.ed2);
        Mark = findViewById(R.id.ed3);
        DataV = findViewById(R.id.textView);
    }
    public void SaveDat(View view) {
        String UserVal = Name.getText().toString();
        String SurnameVal = Surname.getText().toString();
        Integer PassVal = Integer.parseInt(Mark.getText().toString());
        Boolean result = database.insertdata(UserVal, PassVal,SurnameVal);
        if (result == true) {
            Toast.makeText(getApplicationContext(), "Data inserted Sucessfully",
            Toast.LENGTH_SHORT).show();
        } else {
```

```
Toast.makeText(getApplicationContext(), "Data inserted failed",
Toast.LENGTH_SHORT).show();
}
}

public void read(View view) {
Cursor res = database.getAllData();
StringBuffer stringBuffer = new StringBuffer();
if (res != null && res.getCount() > 0) {
while (res.moveToNext()) {
stringBuffer.append("Id: " + res.getString(0) + "\n");
stringBuffer.append("Name: " + res.getString(1) + "\n");
stringBuffer.append("Surname: " + res.getString(2) + "\n");
stringBuffer.append("marks: " + res.getString(3) + "\n");
}
DataV .setText(stringBuffer.toString());
} else {
Toast.makeText(getApplicationContext(), "Data Retrieved Successfully",
Toast.LENGTH_SHORT).show();
}

Toast.makeText(getApplicationContext(), "Data Retrieved Successfully",
Toast.LENGTH_SHORT).show();
}

public void update(View view) {
String UserVal = Name.getText().toString();
String SurnameVal = Surname.getText().toString();
Integer PassVal = Integer.parseInt(Mark.getText().toString());
Boolean result = database.updateData(UserVal, PassVal, SurnameVal);
if (result==true){
Toast.makeText(getApplicationContext(), "Data updated Successfully",
Toast.LENGTH_SHORT).show();
}
else {
Toast.makeText(getApplicationContext(), "No Rows Affected",
Toast.LENGTH_SHORT).show();
}
```

```
}  
}  
public void delete(View view) {  
    String UserVal = Name.getText().toString();  
    int result=database.deletedata(UserVal);  
    Toast.makeText(getApplicationContext(), "Rows Affected",  
    Toast.LENGTH_SHORT).show();  
}  
}
```

MyDatabase.Xml

```
package com.example.sjcet.databasepgm;  
import android.content.ContentValues;  
import android.content.Context;  
import android.database.Cursor;  
import android.database.sqlite.SQLiteDatabase;  
import android.database.sqlite.SQLiteOpenHelper;  
import android.view.View;  
  
public class MyDatabase extends SQLiteOpenHelper {  
    public MyDatabase(Context context) {  
        super(context, "Login.db", null, 1);  
    }  
    @Override  
    public void onCreate(SQLiteDatabase db) {  
        db.execSQL("Create table USERS(ID INTEGER PRIMARY KEY  
        AUTOINCREMENT,NAME text,SURNAME text,MARKS INTEGER)");  
    }  
    @Override  
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {  
        db.execSQL("DROP TABLE IF EXISTS USERS");  
    }  
    public Cursor getAllData() {  
        SQLiteDatabase db=this.getWritableDatabase();  
        Cursor res = db.rawQuery("Select * from USERS",null);
```

```
return res;
}

public Boolean insertdata(String userVal, Integer passVal, String surnameVal) {
    SQLiteDatabase db = this.getWritableDatabase();
    ContentValues contentValues = new ContentValues();
    contentValues.put("NAME", userVal);
    contentValues.put("SURNAME", surnameVal);
    contentValues.put("MARKS", passVal);
    long result = db.insert("USERS", null, contentValues);
    db.close();
    if (result == -1) {
        return false;
    } else {
        return true;
    }
}

public int deletedata(String userVal) {
    SQLiteDatabase db=this.getWritableDatabase();

    int i =db.delete("USERS","NAME=?",new String[]{userVal});
    return i;
}

public Boolean updateData(String userVal, Integer passVal, String surnameVal) {
    SQLiteDatabase db=this.getWritableDatabase();
    ContentValues contentValues=new ContentValues();
    contentValues.put("NAME",userVal);
    contentValues.put("SURNAME",surnameVal);
    contentValues.put("MARKS",passVal);
    int result=db.update("USERS",contentValues,"NAME=?",new String[]{userVal});
    if (result>0) {
        return true;
    }
    else
    {
        return false;
    }
}
```

```
}  
}  
}
```

OUTPUT

