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**LABORATORY RECORD  
YEAR: 2022 TO 2023**

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*Certified that this is a Bonafide Record of Practical work done in partial fulfillment of the requirements for the award of the Degree in Master of Computer Applications of Sree Narayana Gurukulam College of Engineering.*

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# **COURSE OUTCOME 1**

## **COURSE OUTCOME 2**

**PROGRAM NO:5**

**DATE:25/09/22**

## **INTENTS AND SHARED PREFERENCES**

### **AIM**

Design a registration activity and store registration details in local memory of phone using Intents and SharedPreferences

### **PAGE 1**

### **XML CODE**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools" android:layout_width="match_parent"
    android:layout_height="match_parent" android:orientation="vertical"
    tools:context=".MainActivity">
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:background="@color/black"
        android:textColor="@color/white"
        android:text="ENTER THE DETAILS"
        android:layout_marginTop="30px"
        android:textSize="25sp"
    />
    <EditText
        android:id="@+id/fullname"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:layout_marginTop="30sp"
        android:inputType="textPersonName"
        android:hint="FULL NAME" />
    <EditText
        android:id="@+id/email"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:layout_marginTop="30sp"
        android:hint="EMAIL"
        android:inputType="textPersonName" />
    <EditText
        android:id="@+id/location"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
```

```
    android:layout_marginTop="30sp"
    android:inputType="textPersonName"
    android:hint="LOCATION" />
```

```
<Button
    android:id="@+id/button"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="30sp"
    android:backgroundTint="#0A5302"
    android:onClick="reg"
    android:text="REGISTER" />
</LinearLayout>
```

### **JAVA CODE**

```
package com.example.shared_preferences;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    EditText name,email,location;
    SharedPreferences sp;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name=findViewById(R.id.fullname);
        email=findViewById(R.id.email);
        location=findViewById(R.id.location);
        sp=getSharedPreferences("register",MODE_PRIVATE);
    }
    public void reg(View view) {
        Toast.makeText(this,"REGISTERED
SUCCESSFULLY",Toast.LENGTH_SHORT).show();
        Intent i=new Intent(MainActivity.this,MainActivity2.class);
        String val1=name.getText().toString();
        String val2=email.getText().toString();
        i.putExtra("name",val1);
        i.putExtra("email",val2);
        SharedPreferences.Editor ed=sp.edit();
        ed.putString("location",location.getText().toString());
    }
}
```

```
        ed.commit();
        startActivity(i);
    }
}
```

## **PAGE 2**

### **XML CODE**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity2">
```

```
    <TextView
        android:id="@+id/det"
        android:layout_width="match_parent"
        android:layout_marginTop="30px"
        android:fontFamily="serif"
        android:textStyle="bold"
        android:textColor="@color/white"
        android:gravity="center"
        android:background="@color/black"
        android:textSize="25sp"
        android:layout_height="wrap_content"
        android:text="REGISTRATION DETAILS" />
```

```
    <TextView
        android:id="@+id/name"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="30px"
        android:fontFamily="serif"
        android:gravity="center"
        android:text="NAME"
        android:textColor="#23ECD4"
        android:textSize="25sp"
        android:textStyle="bold" />
```

```
    <TextView
        android:id="@+id/email"
        android:textColor="#23ECD4"
        android:fontFamily="serif"
        android:layout_marginTop="30px"
        android:textSize="25sp"
        android:textStyle="bold"
```

```

        android:gravity="center"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="EMAIL" />

<TextView
    android:id="@+id/location"
    android:textColor="#23ECD4"
    android:fontFamily="serif"
    android:layout_marginTop="30px"
    android:textSize="25sp"
    android:textStyle="bold"
    android:gravity="center"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="LOCATION" />
</LinearLayout>

```

## **JAVA CODE**

```

package com.example.shared_preferences;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.widget.TextView;

public class MainActivity2 extends AppCompatActivity {
    TextView t1,t2,t3;
    SharedPreferences sp;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        t1=findViewById(R.id.name);
        t2=findViewById(R.id.email);
        t3=findViewById(R.id.location);
        sp=getSharedPreferences("register",MODE_PRIVATE);

        Intent intent=getIntent();
        String val1=intent.getStringExtra("name");
        String val2=intent.getStringExtra("email");
        String val3=sp.getString("location","");

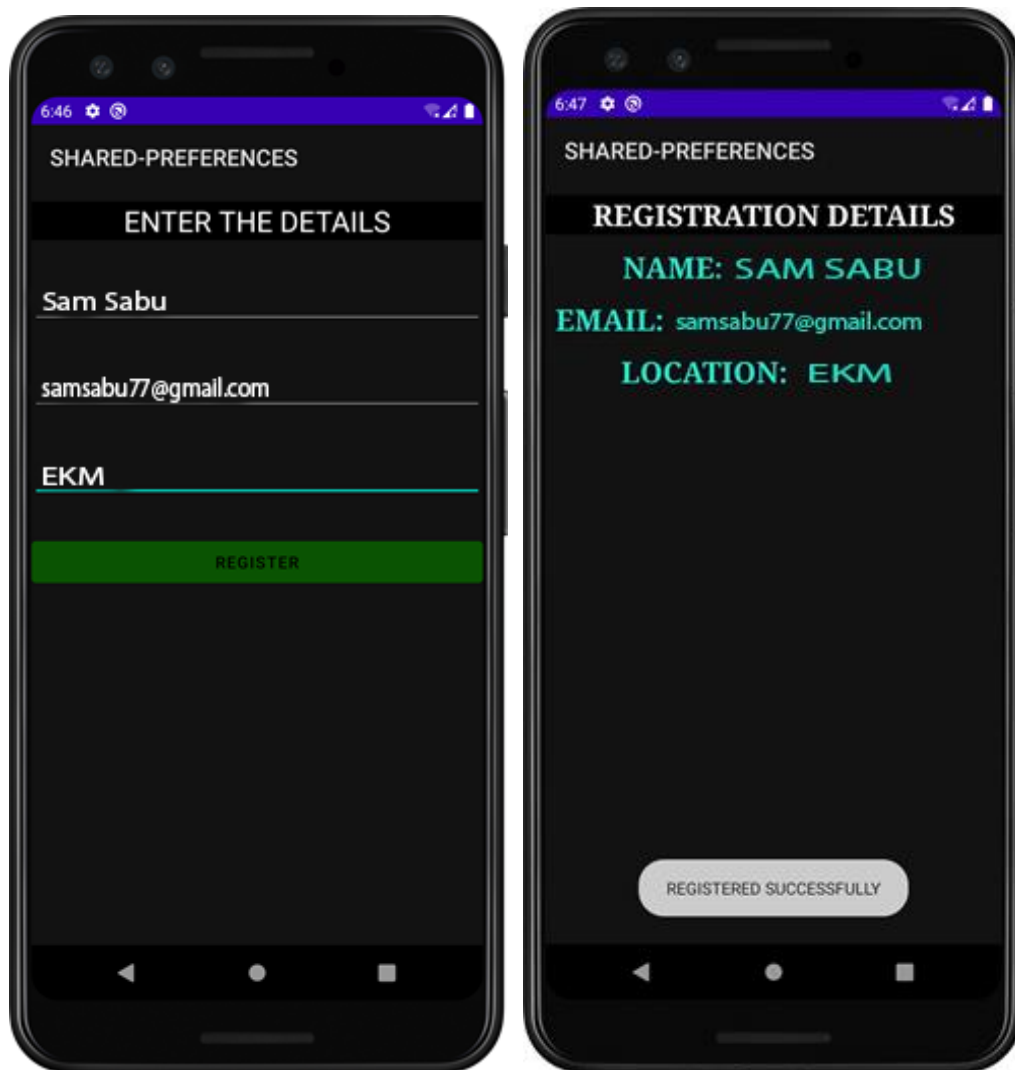
        t1.setText("NAME: "+val1);
        t2.setText("EMAIL: "+val2);
        t3.setText("LOCATION: "+val3);
    }
}

```



```
}  
}
```

## OUTPUT



**PROGRAM NO:6**

**DATE:30/09/22**

## **GRID CALCULATOR**

### **AIM**

Design a simple Calculator using GridLayout and Cascaded LinearLayout

### **XML CODE**

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/display"
        android:layout_width="390dp"
        android:layout_height="80dp"
        android:layout_gravity="center"
        android:layout_marginTop="30dp"
        android:background="#393131"
        android:gravity="center"
        android:inputType="textPersonName"
        android:textSize="48sp" />

    <androidx.gridlayout.widget.GridLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:layout_gravity="center">

        <Button
            android:id="@+id/b7"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:backgroundTint="#6e7778"
            android:text="7"
            app:layout_column="0"
            app:layout_row="0" />

        <Button
            android:id="@+id/b8"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#6e7778"
```

```
        android:text="8"
        app:layout_column="1"
        app:layout_row="0" />
<Button
    android:id="@+id/b9"
    android:layout_width="wrap_content"
    android:layout_height="54dp"
    android:layout_marginLeft="10dp"
    android:backgroundTint="#6e7778"
    android:text="9"
    app:layout_column="2"
    app:layout_row="0" />
<Button
    android:id="@+id/div"
    android:layout_width="wrap_content"
    android:layout_height="54dp"
    android:layout_marginLeft="10dp"
    android:backgroundTint="#3C393B"
    android:text="/"
    app:layout_column="3"
    app:layout_row="0" />
<Button
    android:id="@+id/b4"
    android:layout_width="wrap_content"
    android:layout_height="54dp"
    android:backgroundTint="#6e7778"
    android:text="4"
    app:layout_column="0"
    app:layout_row="1" />
<Button
    android:id="@+id/b5"
    android:layout_width="wrap_content"
    android:layout_height="54dp"
    android:layout_marginLeft="10dp"
    android:backgroundTint="#6e7778"
    android:text="5"
    app:layout_column="1"
    app:layout_row="1" />
<Button
    android:id="@+id/b6"
    android:layout_width="wrap_content"
    android:layout_height="54dp"
    android:layout_marginLeft="10dp"
    android:backgroundTint="#6e7778"
    android:text="6"
    app:layout_column="2"
    app:layout_row="1" />
<Button
    android:id="@+id/mul"
    android:layout_width="wrap_content"
```

```

        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#3C393B"
        android:text="x"
        app:layout_column="3"
        app:layout_row="1" />
<Button
    android:id="@+id/b1"
    android:layout_width="wrap_content"
    android:layout_height="54dp"
    android:backgroundTint="#6e7778"
    android:text="1"
    app:layout_column="0"
    app:layout_row="2" />
<Button
    android:id="@+id/b2"
    android:layout_width="wrap_content"
    android:layout_height="54dp"
    android:layout_marginLeft="10dp"
    android:backgroundTint="#6e7778"
    android:text="2"
    app:layout_column="1"
    app:layout_row="2" />
<Button
    android:id="@+id/b3"
    android:layout_width="wrap_content"
    android:layout_height="54dp"
    android:layout_marginLeft="10dp"
    android:backgroundTint="#6e7778"
    android:text="3"
    app:layout_column="2"
    app:layout_row="2" />
<Button
    android:id="@+id/sub"
    android:layout_width="wrap_content"
    android:layout_height="54dp"
    android:layout_marginLeft="10dp"
    android:backgroundTint="#3C393B"
    android:text="-"
    app:layout_column="3"
    app:layout_row="2" />
<Button
    android:id="@+id/c1r"
    android:layout_width="wrap_content"
    android:layout_height="54dp"
    android:backgroundTint="#3C393B"
    android:text="c1r"
    app:layout_column="0"
    app:layout_row="3" />
<Button

```

```

        android:id="@+id/b0"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#6e7778"
        android:text="0"
        app:layout_column="1"
        app:layout_row="3" />
    <Button
        android:id="@+id/equal"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#3C393B"
        android:text="="
        app:layout_column="2"
        app:layout_row="3" />
    <Button
        android:id="@+id/add"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#3C393B"
        android:text="+"
        app:layout_column="3"
        app:layout_row="3" />
</androidx.gridlayout.widget.GridLayout>
</LinearLayout>

```

## **JAVA CODE**

```

package com.example.calculator;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity implements View.OnClickListener {
    EditText number;
    double num1=0;
    double num2=0;
    String op="";
    Button b1, b2, b3, b4, b5, b6, b7, b8, b9, b0, sum, sub, mul, div,equal, clear;

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

```

```

setContentView(R.layout.activity_main);

number = findViewById(R.id.display);
b0 = findViewById(R.id.b0);
b1 = findViewById(R.id.b1);
b2 = findViewById(R.id.b2);
b3 = findViewById(R.id.b3);
b4 = findViewById(R.id.b4);
b5 = findViewById(R.id.b5);
b6 = findViewById(R.id.b6);
b7 = findViewById(R.id.b7);
b8 = findViewById(R.id.b8);
b9 = findViewById(R.id.b9);

sum = findViewById(R.id.add);
sub = findViewById(R.id.sub);
mul = findViewById(R.id.mul);
div = findViewById(R.id.div);
equal = findViewById(R.id.equal);
clear = findViewById(R.id.clr);

b0.setOnClickListener(this);
b1.setOnClickListener(this);
b2.setOnClickListener(this);
b3.setOnClickListener(this);
b4.setOnClickListener(this);

b5.setOnClickListener(this);
b6.setOnClickListener(this);
b7.setOnClickListener(this);
b8.setOnClickListener(this);
b9.setOnClickListener(this);

mul.setOnClickListener(this);
div.setOnClickListener(this);
sub.setOnClickListener(this);
sum.setOnClickListener(this);
clear.setOnClickListener(this);
equal.setOnClickListener(this);
}

@Override
public void onClick(View view) {
    Button b = (Button) view;
    if (view == clear) {
        number.setText("");
    } else if (view == sub || view == sum || view == mul || view == div) {
        num1 = Integer.parseInt(number.getText().toString());
        op = b.getText().toString();
        number.setText("");
    }
}

```

```

    } else if (view == equal) {
        num2 = Integer.parseInt(number.getText().toString());
        if (op.equals("+")) {
            number.setText(num1 + num2 + "");
        } else if (op.equals("-")) {
            number.setText(num1 - num2 + "");
        } else if (op.equals("x")) {
            number.setText(num1 * num2 + "");
        } else if (op.equals("/")) {
            number.setText(num1 / num2 + "");
        }
    } else {
        String s = number.getText().toString();
        number.setText(s + b.getText().toString());
    }
}
}
}

```

## OUTPUT



**PROGRAM NO:7**

**DATE:05/10/22**

## **FACEBOOK PAGE**

### **AIM**

Create a Facebook page using RelativeLayout; set properties using .xml file

### **XML CODE**

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
    android:background="#3e52ab"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:layout_gravity="center"
        android:layout_marginTop="40dp"
        app:srcCompat="@drawable/fb2" />

    <EditText
        android:id="@+id/username"
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:layout_below="@+id/imageView"
        android:layout_marginLeft="10dp"
        android:layout_marginRight="10dp"
        android:layout_marginTop="60dp"
        android:background="@xml/back"
        android:ems="10"
        android:hint="Email or Phone Number"
        android:inputType="textPersonName"
        android:paddingLeft="30dp"
        android:textColor="@color/white"
        android:textColorHint="@color/white"
        android:textSize="19sp" />

    <EditText
        android:id="@+id/password"
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:layout_below="@+id/username"
        android:layout_marginLeft="10dp"
```



```
android:layout_marginTop="10dp"
android:layout_marginRight="10dp"
android:background="@xml/back"
android:ems="10"
android:hint="password"
android:inputType="textPersonName"
android:paddingLeft="30dp"
android:textColor="@color/white"
android:textColorHint="@color/white"
android:textSize="19sp" />
```

<Button

```
android:id="@+id/button"
android:layout_width="260dp"
android:layout_height="55dp"
android:layout_below="@+id/password"
android:layout_centerHorizontal="true"
android:layout_marginTop="40dp"
android:backgroundTint="#46b082"
android:text="Login"
android:textColor="#FFFFFF"
android:textSize="18sp" />
```

<TextView

```
android:id="@+id/textView"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_below="@id/button"
android:layout_centerHorizontal="true"
android:layout_marginTop="15dp"
android:text="Forgot account?"
android:textColor="@color/white"
android:textSize="22dp" />
```

<View

```
android:layout_width="match_parent"
android:layout_height="2dp"
android:layout_below="@+id/textView"
android:layout_marginTop="20dp"
android:background="#94918e" />
```

<Button

```
android:id="@+id/button2"
android:layout_width="260dp"
android:layout_height="55dp"
android:layout_below="@+id/textView"
android:layout_centerHorizontal="true"
android:layout_marginTop="70dp"
android:backgroundTint="#46b082"
android:text="Create New Account"
```

```

        android:textColor="#FFFFFF" />
</RelativeLayout>

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

    <!-- View background color -->
    <solid
        android:color="#3e52ab" >
    </solid>

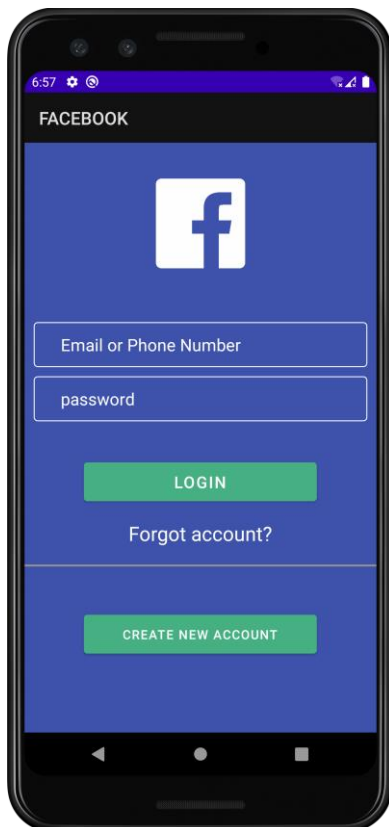
    <!-- View border color and width -->
    <stroke
        android:width="1dp"
        android:color="@color/white" >
    </stroke>

    <!-- The radius makes the corners rounded -->
    <corners
        android:radius="4dp" >
    </corners>

</shape>

```

## OUTPUT



**PROGRAM NO:8**

**DATE:20/10/22**

## **TOGGLE IMAGE**

### **AIM**

Develop an application that toggles image using FrameLayout

### **XML CODE**

```
<?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">

    <LinearLayout
        android:layout_width="409dp"
        android:layout_height="729dp"
        android:orientation="horizontal"
        tools:layout_editor_absoluteX="1dp"
        tools:layout_editor_absoluteY="1dp"
        tools:ignore="MissingConstraints">

        <ImageView
            android:id="@+id/img1"
            android:layout_width="wrap_content"
            android:layout_height="74dp"
            android:layout_weight="1"
            android:src="@drawable/pikachu"
            app:srcCompat="@android:drawable/btn_star_big_on" />

        <ImageView
            android:id="@+id/img2"
            android:layout_width="wrap_content"
            android:layout_height="72dp"
            android:layout_weight="1"
            android:src="@drawable/a"
            app:srcCompat="@android:drawable/checkbox_on_background" />
    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

## **JAVA CODE**

```
package com.example.toggle;

import androidx.appcompat.app.AppCompatActivity;

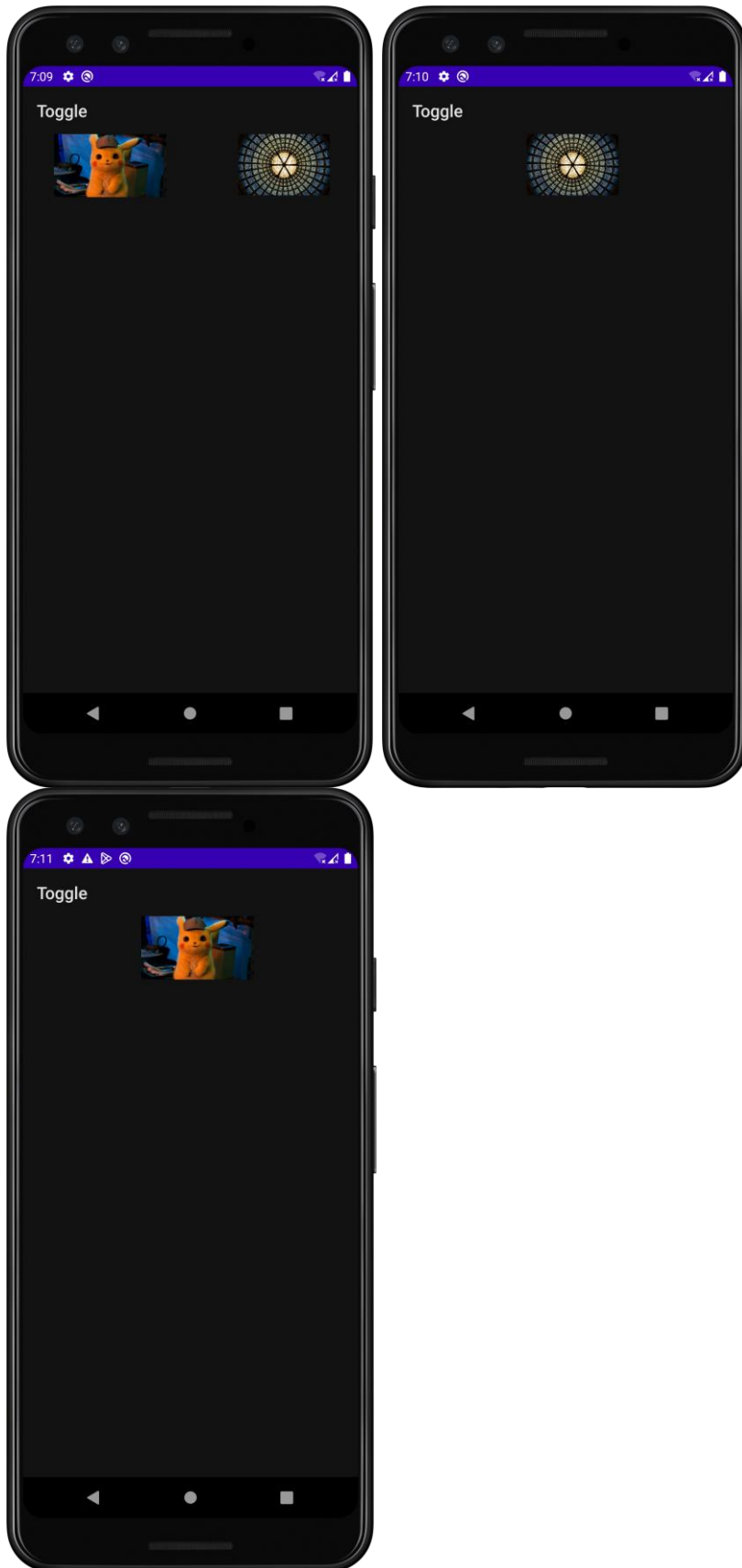
import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;

public class MainActivity extends AppCompatActivity implements View.OnClickListener {
    ImageView img,img1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        img =(ImageView) findViewById(R.id.img1);
        img1 =(ImageView) findViewById(R.id.img2);

        img.setOnClickListener(this);
        img1.setOnClickListener(this);
    }

    @Override
    public void onClick(View view) {
        if (view == img){
            img.setVisibility(View.GONE);
            img1.setVisibility(View.VISIBLE);
        }
        else {
            img1.setVisibility(View.GONE);
            img.setVisibility(View.VISIBLE);
        }
    }
}
```

## OUTPUT



## **COURSE OUTCOME 3**

**PROGRAM NO:9**

**DATE:30/10/22**

## **INTENT**

### **AIM**

Implement Intent to navigate between multiple activities

### **PAGE 1**

### **XML CODE**

```
<?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"
        android:onClick="click"
        android:text="NEXT PAGE"
        tools:ignore="MissingConstraints"
        tools:layout_editor_absoluteX="147dp"
        tools:layout_editor_absoluteY="41dp" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

### **JAVA CODE**

```
package com.example.intent;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {
    Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1=findViewById(R.id.button);
    }
}
```

```

    public void click(View view) {
        Intent i=new Intent(MainActivity.this,MainActivity2.class);
        startActivity(i);
    }
}

```

## **PAGE 2**

### **XML CODE**

```

<?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=".MainActivity2">

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="click"
        android:text="PREVIOUS PAGE"
        tools:layout_editor_absoluteX="129dp"
        tools:layout_editor_absoluteY="54dp"
        tools:ignore="MissingConstraints" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

### **JAVA CODE**

```

package com.example.intent;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity2 extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
    }

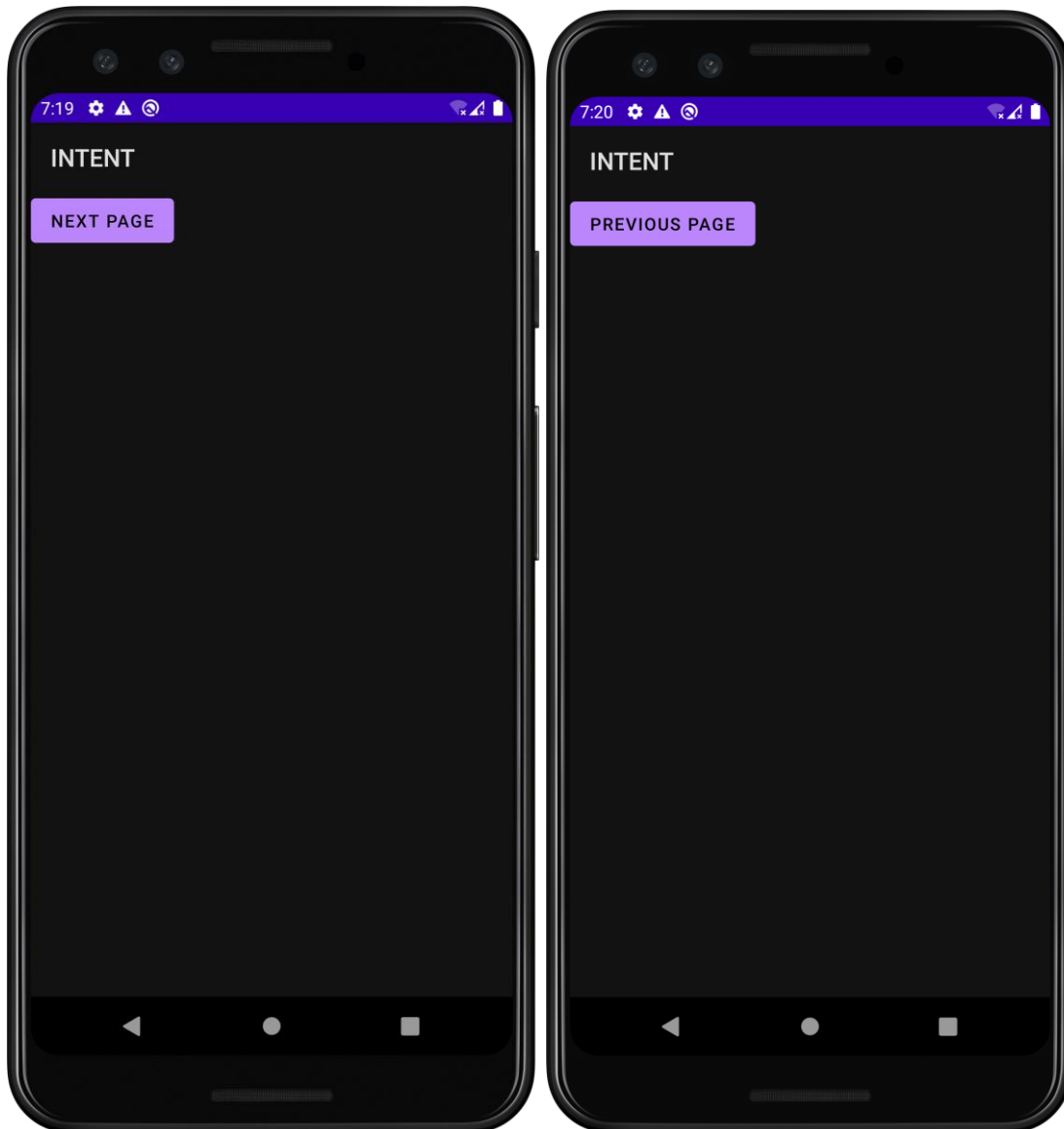
    public void click(View view) {
        Intent i=new Intent(MainActivity2.this,MainActivity.class);

```



```
        startActivity(i);  
    }  
}
```

## OUTPUT



**PROGRAM NO:10**

**DATE:10/11/22**

## **MENU**

### **AIM**

Implement Options Menu to navigate to activities

### **MENU**

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

    <item
        android:id="@+id/i1"
        android:title="STUDENTS" />
    <item
        android:id="@+id/i2"
        android:title="DEPARTMENT">
    <menu>
    <item
        android:id="@+id/s1"
        android:title="MCA" />
    <item
        android:id="@+id/s2"
        android:title="MBA" />
    <item
        android:id="@+id/s3"
        android:title="B-TECH" />
    </menu>
    </item>
    <item
        android:id="@+id/i3"
        android:title="MANAGEMENT" />
</menu>
```

### **XML CODE**

```
<?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">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```
    android:text="MENU"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
```

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

## **JAVA CODE**

```
package com.example.menu;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

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

```
import android.view.Menu;
```

```
import android.view.MenuInflater;
```

```
import android.view.MenuItem;
```

```
import android.widget.Toast;
```

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

```
    @Override
```

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

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

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

```
    }
```

```
    public boolean onCreateOptionsMenu(Menu menu)
```

```
    {
```

```
        MenuInflater inflater = getMenuInflater();
```

```
        inflater.inflate(R.menu.samplemenu, menu);
```

```
        return true;
```

```
    }
```

```
    public boolean onOptionsItemSelected(MenuItem item){
```

```
        switch(item.getItemId()){
```

```
            case R.id.i1:
```

```
                Toast.makeText(this,"STUDENTS",Toast.LENGTH_LONG).show();
```

```
                // Intent i=new Intent(this,MainActivity2.class);
```

```
                // startActivity(i);
```

```
                break;
```

```
            case R.id.i2:
```

```
                Toast.makeText(this,"DEPARTMENT",Toast.LENGTH_LONG).show();
```

```
                break;
```

```
            case R.id.s1:
```

```
                Toast.makeText(this,"MCA",Toast.LENGTH_LONG).show();
```

```
                break;
```

```
            case R.id.s2:
```

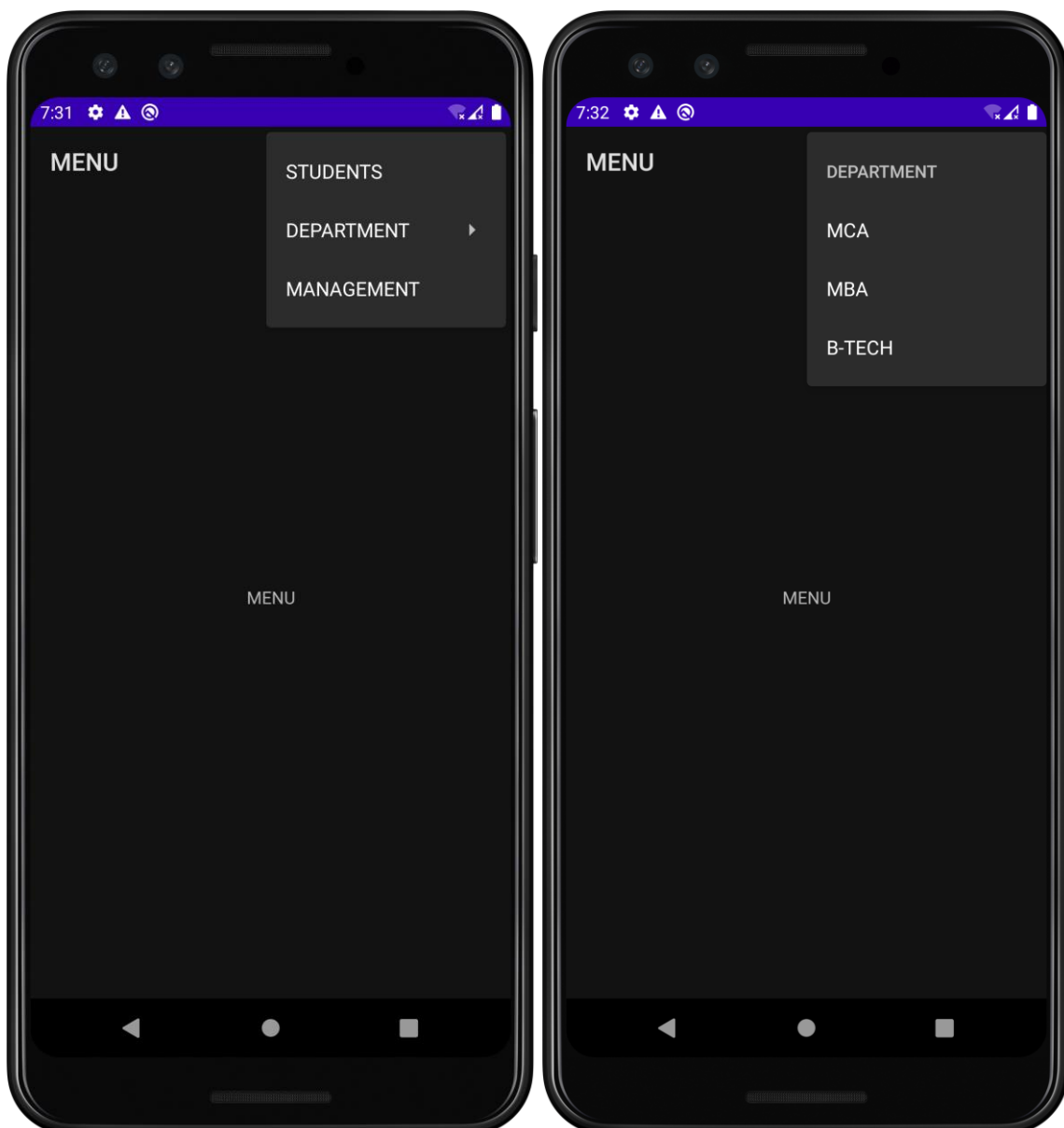
```
                Toast.makeText(this,"MBA",Toast.LENGTH_LONG).show();
```

```
                break;
```

```
            case R.id.s3:
```

```
        Toast.makeText(this,"B-TECH",Toast.LENGTH_LONG).show();
        break;
    case R.id.i3:
        Toast.makeText(this,"MANAGEMENT",Toast.LENGTH_LONG).show();
        break;
    }
    return false;
}
}
```

## OUTPUT



## **COURSE OUTCOME 5**

**PROGRAM NO:11**

**DATE:20/11/22**

## **DATABASE MANAGEMENT**

### **AIM**

Create database using SQLite and perform INSERT,SELECT,UPDATE AND DELETE

### **XML CODE**

```
<?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">
```

```
<LinearLayout
    android:layout_width="407dp"
    android:layout_height="739dp"
    android:orientation="vertical"
    tools:layout_editor_absoluteX="2dp"
    tools:layout_editor_absoluteY="-4dp">
```

```
<TextView
    android:id="@+id/textView"
    android:layout_width="match_parent"
    android:layout_height="47dp"
    android:text="ID" />
```

```
<EditText
    android:id="@+id/id"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="Enter id"
    android:inputType="textPersonName" />
```

```
<TextView
    android:id="@+id/textView2"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:text="NAME" />
```

```
<EditText
    android:id="@+id/name"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
```

```
        android:ems="10"
        android:hint="Enter name"
        android:inputType="textPersonName" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:text="PLACE" />

<EditText
    android:id="@+id/place"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="Enter your place"
    android:inputType="textPersonName" />

<Button
    android:id="@+id/insert"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="INSERT" />

<Button
    android:id="@+id/select"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="SELECT" />

<Button
    android:id="@+id/update"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="UPDATE" />

<Button
    android:id="@+id/delete"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="DELETE" />

<Button
    android:id="@+id/clear"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="CLEAR" />
</LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

## JAVA CODE

```
package com.example.co_5_database;

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

import android.app.AlertDialog;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Build;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    EditText eid,ename,eplace;
    Button bins,bsel,bup,bdel,bclr;
    AlertDialog.Builder builder;
    SQLiteDatabase db;
    @RequiresApi(api = Build.VERSION_CODES.ICE_CREAM_SANDWICH_MR1)
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        eid = findViewById(R.id.id);
        ename = findViewById(R.id.name);
        eplace = findViewById(R.id.place);
        bins = findViewById(R.id.insert);
        bsel = findViewById(R.id.select);
        bup = findViewById(R.id.update);
        bdel = findViewById(R.id.delete);
        bclr = findViewById(R.id.clear);
        builder = new AlertDialog.Builder(this);

        try{
            db = openOrCreateDatabase("empdb",MODE_PRIVATE,null);
            db.execSQL("create table employee(id integer primary key,name Text,place Text)");
            Toast.makeText(getApplicationContext(),"Created
            Successfully",Toast.LENGTH_SHORT).show();
        }
        catch(Exception e){

        }

        bins.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
```



```

        try{
            db.execSQL("insert into employee
values("+eid.getText().toString()+","+ename.getText().toString()+","+eplace.getText().toStr
ing()+")");
            Toast.makeText(getApplicationContext(),"Record Inserted
Successfully",Toast.LENGTH_SHORT).show();
        }
        catch(Exception e){
            Toast.makeText(getApplicationContext(), "Error in Data",
Toast.LENGTH_SHORT).show();
        }
    }
});

bclr.setOnClickListener();

bsel.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Cursor c = db.rawQuery("select * from employee", null);
        if(c.getCount()==0){
            Toast.makeText(getApplicationContext(), "No such Record!",
Toast.LENGTH_SHORT).show();
        }
        else{
            StringBuffer b = new StringBuffer();
            while(c.moveToNext()){
                b.append("ID : " + c.getString(0) + "\n");
                b.append("NAME : " + c.getString(1) + "\n");
                b.append("PLCE : " + c.getString(2) + "\n");
            }

            Toast.makeText(getApplicationContext(),b.toString(),Toast.LENGTH_LONG).show();
            builder.setMessage(b.toString());
            AlertDialog alert = builder.create();
            alert.setTitle("---EMPLOYEE DATA---");
            alert.show();
        }
    }
});

bup.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        db.execSQL("update employee set
name="+ename.getText().toString()+",place="+eplace.getText().toString()+" where
id="+eid.getText().toString()+");
        Toast.makeText(getApplicationContext(), "---Updated---",
Toast.LENGTH_SHORT).show();
    }
}

```

```

});

bdel.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        db.execSQL("delete from employee where id="+eid.getText().toString());
        Toast.makeText(getApplicationContext(), "---Item Deleted---",
        Toast.LENGTH_SHORT).show();
    }
});

bclr.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        eid.setText("");
        ename.setText("");
        eplace.setText("");
    }
});
bclr.callOnClick();
}
}

```

## OUTPUT

