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ROLL NO: 08
M.Sc. (I.C.T.) : 2nd Sem
SUBJECT: Smart Device Computing using Android (203)

Sheet- 2

Ques 1. Develop an application for registration of student with five fields Name, Age, Address, City, and Phone using edit text. On submit button transfer these information and display on another activity.

MainActivity.java

```
package com.example.registertstudentq7sheet1;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {
    EditText ed1,ed2,ed3,ed4,ed5;
    Button b1;

    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1=findViewById(R.id.b1);
        ed1=findViewById(R.id.ed1);
        ed2=findViewById(R.id.ed2);
        ed3=findViewById(R.id.ed3);
```

```

ed4=findViewById(R.id.ed4);
ed5=findViewById(R.id.ed5);

b1.setOnClickListener(new View.OnClickListener()
{
    @Override
    public void onClick(View view)
    {
        String str=ed1.getText().toString()+""
"+ed2.getText().toString()+" "+ed3.getText().toString()+""
"+ed4.getText().toString()+" "+ed5.getText().toString();
        Intent it=new
Intent(getApplicationContext(),Activity2.class);
        it.putExtra("message_key",str);
        startActivity(it);
    }
});
}

```

XML File

```

<?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">

<EditText
    android:id="@+id/ed2"
    android:layout_width="340dp"
    android:layout_height="51dp"
    android:ems="10"
    android:inputType="textPersonName"
    android:text="Age"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.225"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.325" />

<EditText
    android:id="@+id/ed4"
    android:layout_width="340dp"
    android:layout_height="51dp"
    android:ems="10"
    android:inputType="textPersonName"
    android:text="City"
    app:layout_constraintBottom_toBottomOf="parent"

```

```
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.225"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.614" />

<TextView
    android:id="@+id/textView5"
    android:layout_width="38dp"
    android:layout_height="17dp"
    android:text="City:"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.042"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.561" />

<EditText
    android:id="@+id/ed3"
    android:layout_width="340dp"
    android:layout_height="51dp"
    android:ems="10"
    android:inputType="textPersonName"
    android:text="Address"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.239"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.47" />

<TextView
    android:id="@+id/textView4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Address:"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.047"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.421" />

<EditText
    android:id="@+id/ed5"
    android:layout_width="340dp"
    android:layout_height="51dp"
    android:ems="10"
    android:inputType="textPersonName"
    android:text="Phone"
    app:layout_constraintBottom_toBottomOf="parent"
```

```
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.239"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.764" />

<TextView
    android:id="@+id/textView6"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Phone:"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.046"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.703" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Age:"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.041"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.285" />

<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Name:"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.045"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.169" />

<TextView
    android:id="@+id/textView"
    android:layout_width="286dp"
    android:layout_height="63dp"
    android:text="Student Registration Form"
    android:textSize="24sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.512"
    app:layout_constraintStart_toStartOf="parent"
```

```

        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.052" />

<Button
    android:id="@+id/b1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="SUBMIT"
    android:textSize="20sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.45"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.882" />

<EditText
    android:id="@+id/ed1"
    android:layout_width="340dp"
    android:layout_height="51dp"
    android:ems="10"
    android:inputType="textPersonName"
    android:text="Name"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.239"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.204" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Activity2.java

```

package com.example.registertstudentq7sheet1;

import androidx.appcompat.app.AppCompatActivity;

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

public class Activity2 extends AppCompatActivity {

    TextView receive_value;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_2);
        receive_value = (TextView) findViewById(R.id.receive_value);
        Intent it=getIntent();
```

```

        String str=it.getStringExtra("message_key");
        receive_value.setText(str);
    }
}

```

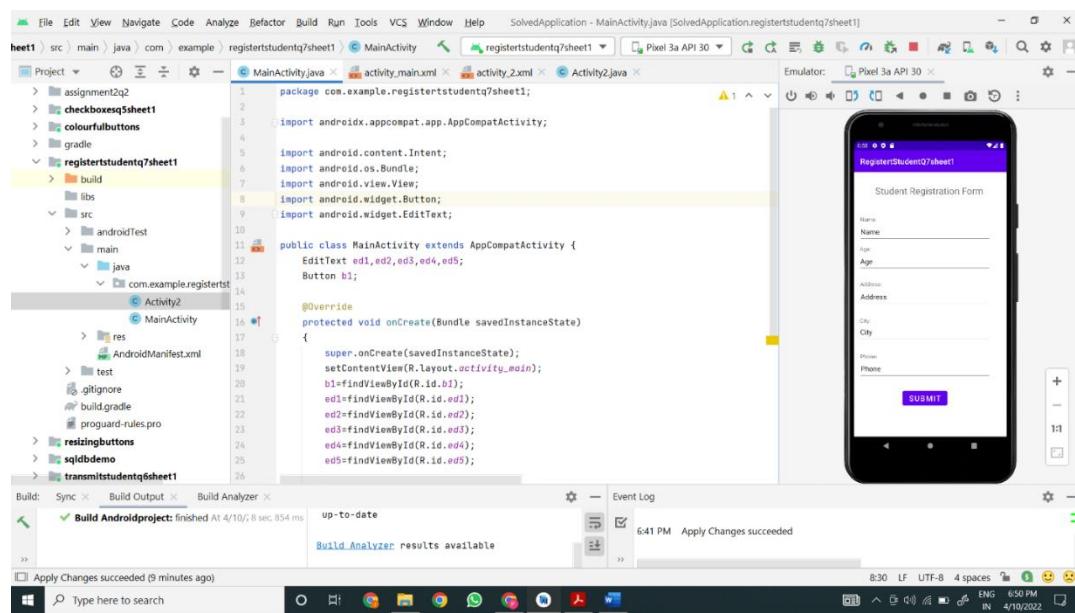
XML File2

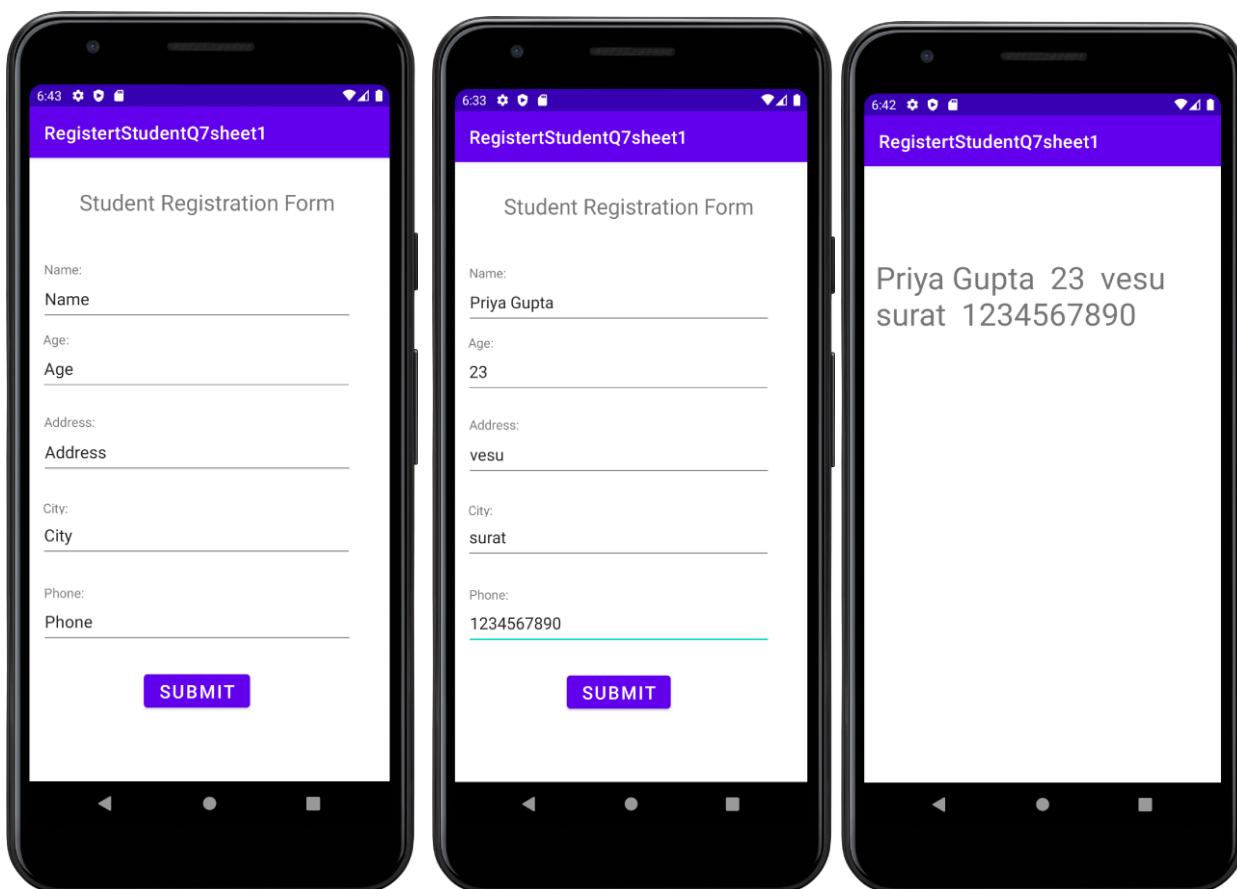
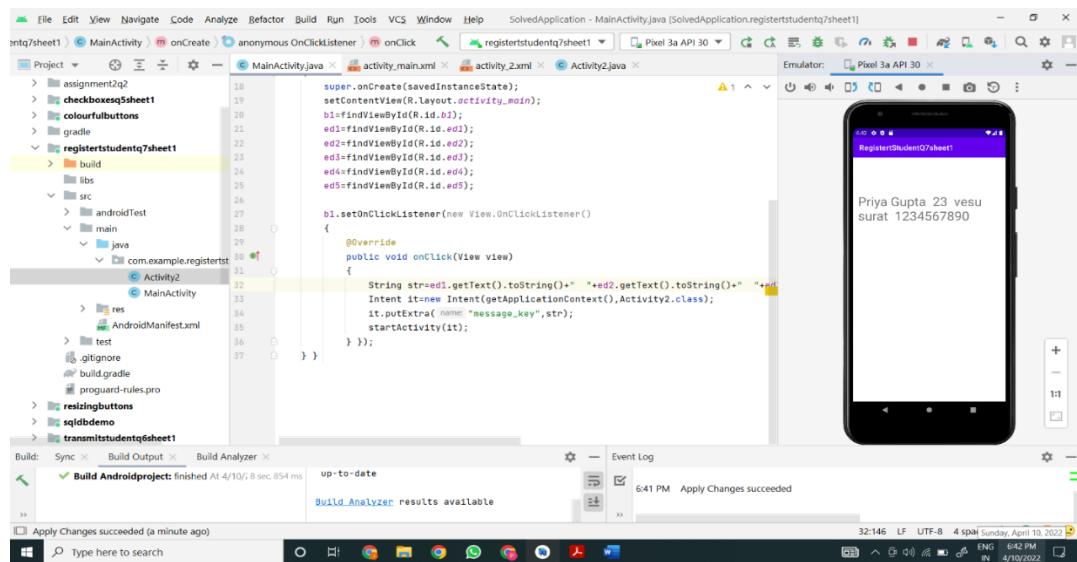
```

<?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=".Activity2">

    <TextView
        android:id="@+id/receive_value"
        android:layout_width="367dp"
        android:layout_height="163dp"
        android:text="TextView"
        android:textSize="34sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.192" />
</androidx.constraintlayout.widget.ConstraintLayout>

```





Ques2. Develop an application to add and remove items to listview at run time.

MainActivity.java

```
package com.example.androidsheet2solution;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;
import android.content.DialogInterface;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.EditText;
import android.widget.ImageView;
import android.widget.ListView;
import android.widget.Toast;
import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {
    EditText input;
    ImageView enter;
    ListView listView;
    ArrayList<String> items;
    ArrayAdapter<String> adapter;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        listView = (ListView) findViewById(R.id.listView);
        input = (EditText) findViewById(R.id.input);
        enter = (ImageView) findViewById(R.id.enter);
        items = new ArrayList<>();
        items.add("Default item");
        adapter = new
        ArrayAdapter<>(getApplicationContext(), android.R.layout.simple_list_item_1,
        items);
        listView.setAdapter(adapter);

        enter.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String text = input.getText().toString();
                if(text == null || text.length() == 0){
                    Toast.makeText(getApplicationContext(),"Enter an
Item",Toast.LENGTH_SHORT);
                }
                else{
                    addItem(text);
                    input.setText("");
                }
            }
        });
    }

    private void addItem(String item) {
        items.add(item);
        adapter.notifyDataSetChanged();
    }
}
```

```

listView.setOnItemLongClickListener(new
AdapterView.OnItemLongClickListener() {
    @Override
    public boolean onItemLongClick(AdapterView<?>
        adapterView, View view, int i, long l) {
        String name = (String) adapterView.getItemAtPosition(i);
        final int which_item = i;
        new AlertDialog.Builder(MainActivity.this)
            .setIcon(android.R.drawable.ic_delete)
            .setTitle("Are you sure?")
            .setMessage("Do you want to delete this item named : "
+ name + "?")
            .setPositiveButton("Yes", new
DialogInterface.OnClickListener() {
                @Override
                public void onClick(DialogInterface
dialogInterface, int i) {
                    items.remove(which_item);
                    adapter.notifyDataSetChanged();

                    Toast.makeText(getApplicationContext(), "Removed Item named - " +name,
                        Toast.LENGTH_SHORT).show();
                }
            })
            .setNegativeButton("No", null)
            .show();
        return true;
    }
});
public void addItem(String item){
    items.add(item);
    adapter.notifyDataSetChanged();
}
public void removeItem(int item){
    items.remove(item);
    adapter.notifyDataSetChanged();
}
}

```

activity.xml

```

<?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"
    tools:context=".MainActivity">
    <RelativeLayout
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:id="@+id/header"
        android:background="#F1FEFF">

```

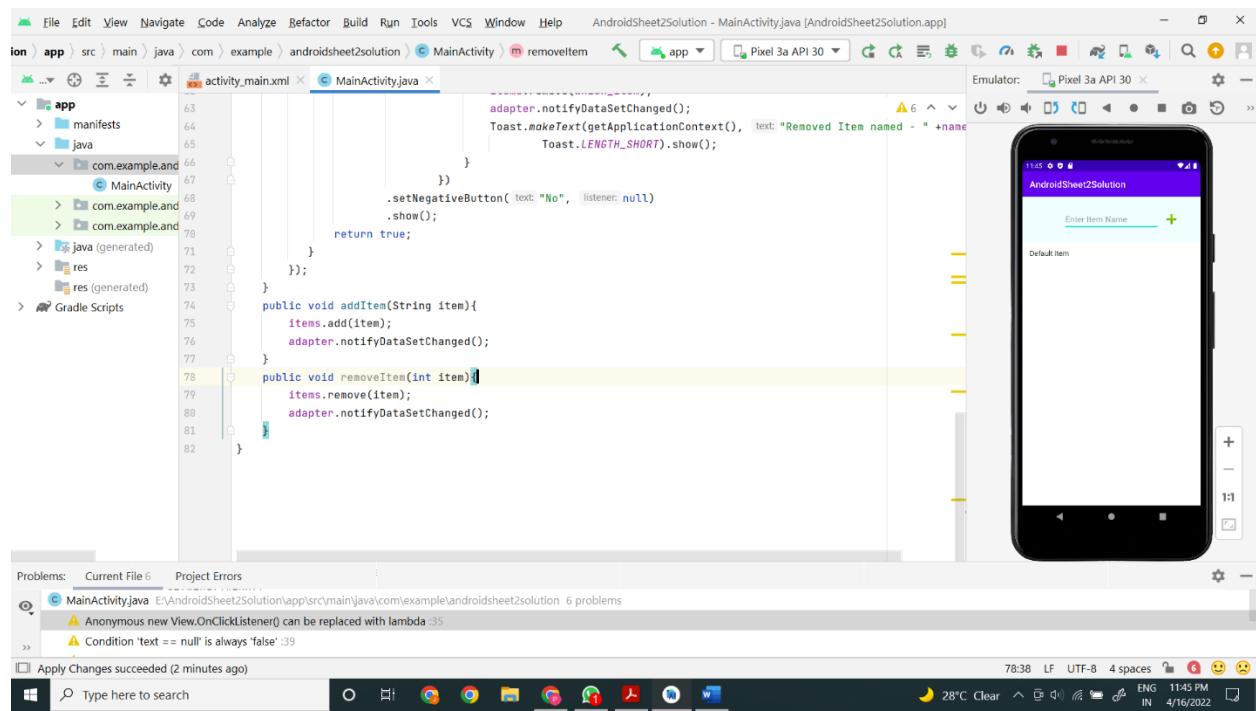
```

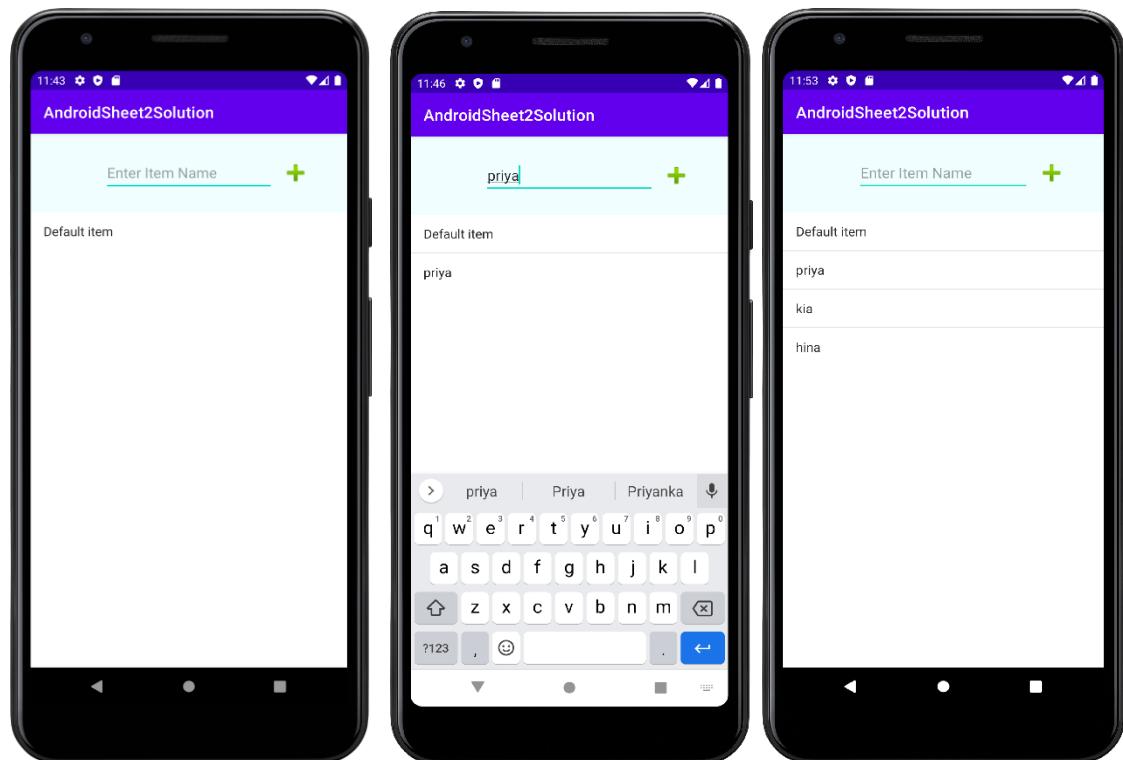
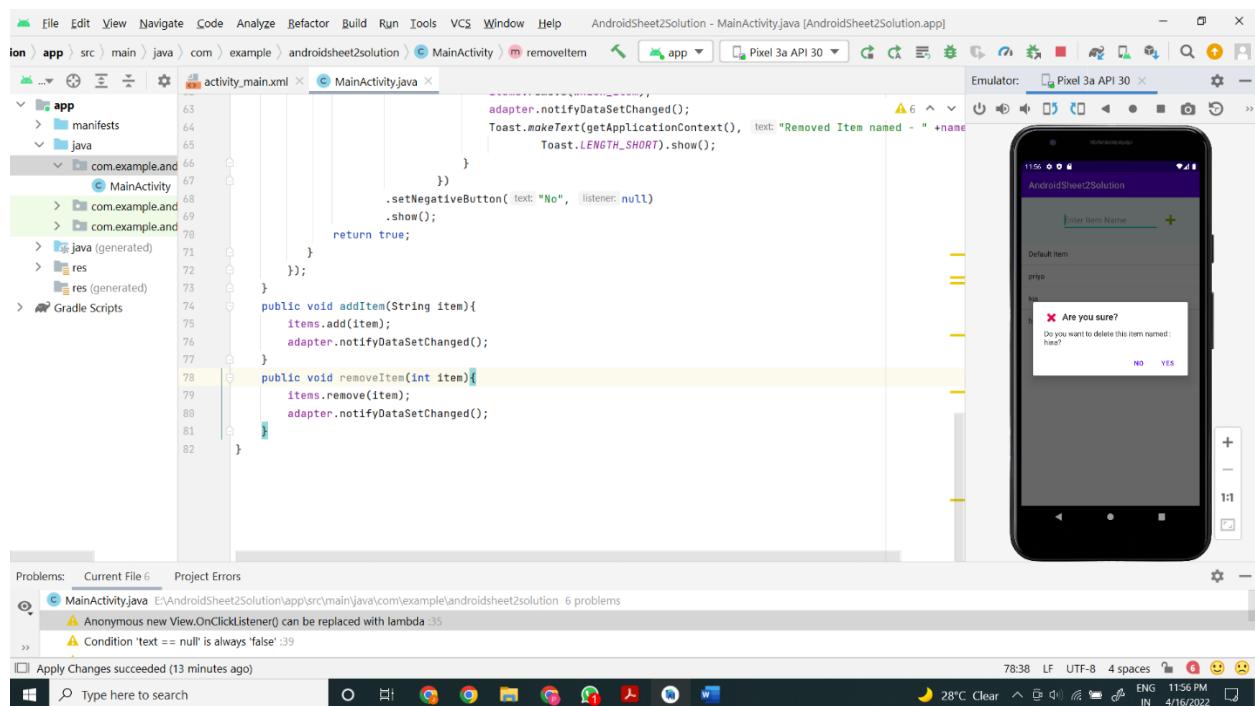
<EditText
    android:id="@+id/input"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerInParent="true"
    android:ems="10"
    android:hint="Enter Item Name"
    android:minHeight="48dp" />

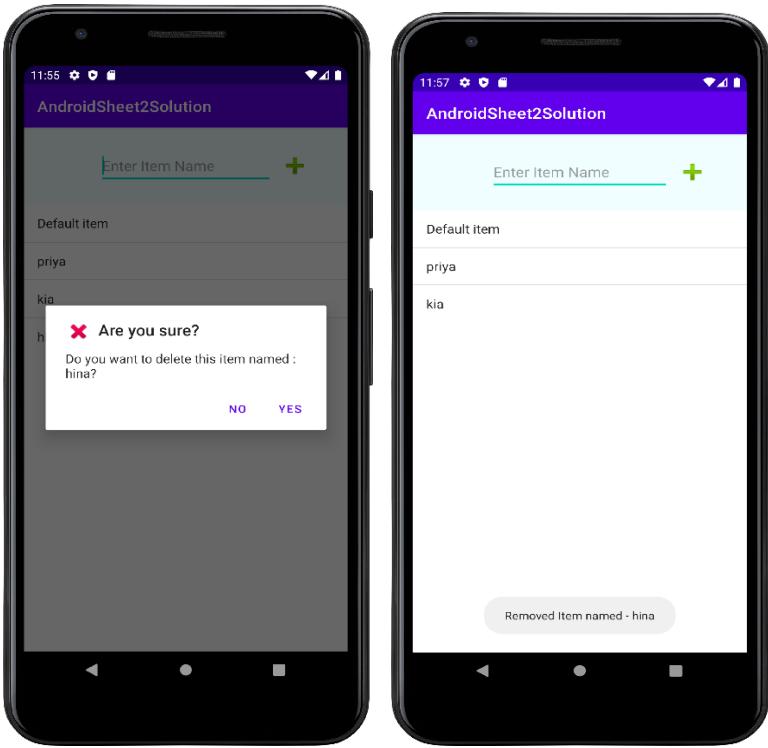
<ImageView
    android:id="@+id/enter"
    android:layout_width="40sp"
    android:layout_height="40sp"
    android:layout_centerVertical="true"
    android:layout_marginLeft="7sp"
    android:layout_toRightOf="@+id/input"
    app:srcCompat="@android:drawable/ic_input_add" />
</RelativeLayout>

<ListView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:id="@+id/listView"
    android:layout_below="@+id/header">
</ListView>
</RelativeLayout>

```







Ques 3. Develop an application to show items in listview and on selection of particular item it should start respective activity.

MainActivity.java

```
package com.example.selectedlistviewsheet2q3;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.ListView;

import java.util.ArrayList;
import java.util.List;

public class MainActivity extends AppCompatActivity {
    ListView listView;

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

```

super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
listView = findViewById(R.id.listView);
List<String> list = new ArrayList<>();
list.add("Activity 1");
list.add("Activity 2");
list.add("Activity 3");

ArrayAdapter arrayAdapter = new ArrayAdapter(getApplicationContext(),
android.R.layout.simple_list_item_1, list);
listView.setAdapter(arrayAdapter);

listView.setOnItemClickListener(new AdapterView.OnItemClickListener()
{
    @Override
    public void onItemClick(AdapterView<?> adapterView,
                           View view, int i, long l) {
        if (i == 0) {

            startActivity(new
                         Intent(MainActivity.this, Activity1.class));
        } else if (i == 1) {

            startActivity(new
                         Intent(MainActivity.this, Activity2.class));
        } else if (i == 2) {

            startActivity(new
                         Intent(MainActivity.this, Activity3.class));
        }
    }
});
}
}

```

activity_main.xml

```

<?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"
    tools:context=".MainActivity">
    <ListView
        android:id="@+id/listView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
</RelativeLayout>

```

activity1.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#E1D1FF"
    tools:context=".Activity1">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:text="This is Activity 1"
        android:textColor="#0B4513"
        android:textSize="30sp" />
</RelativeLayout>
```

activity2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#C3E0F7"
    tools:context=".Activity2">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:text="This is Activity 2"
        android:textColor="#0B4513"
        android:textSize="30sp" />
</RelativeLayout>
```

activity3.xml

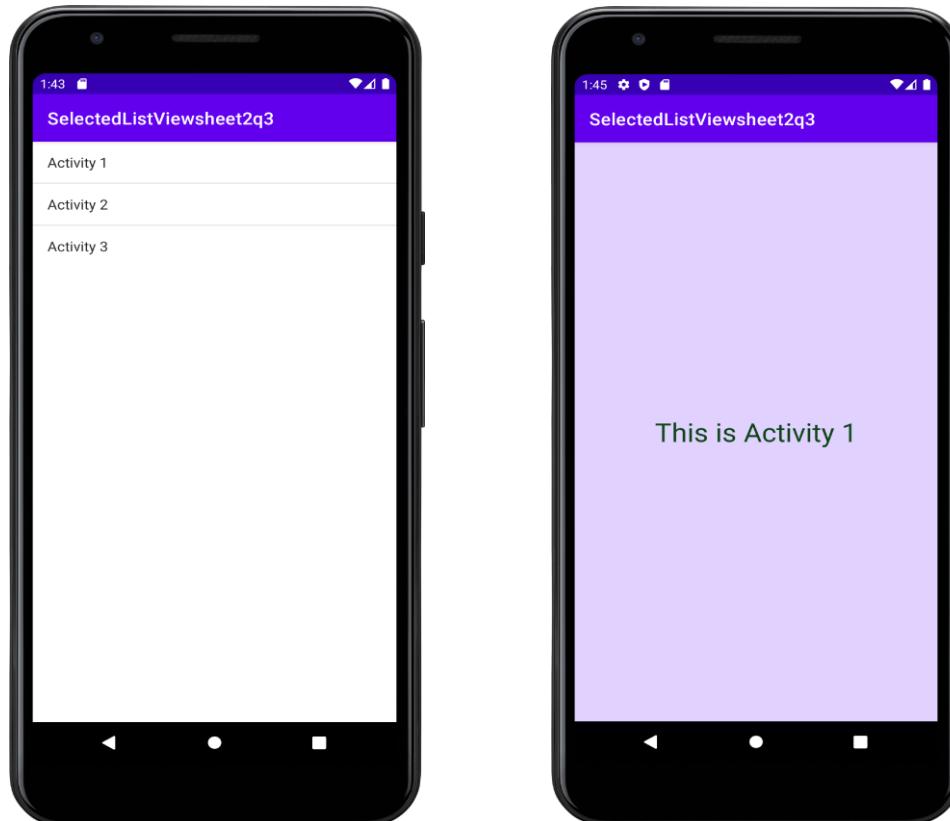
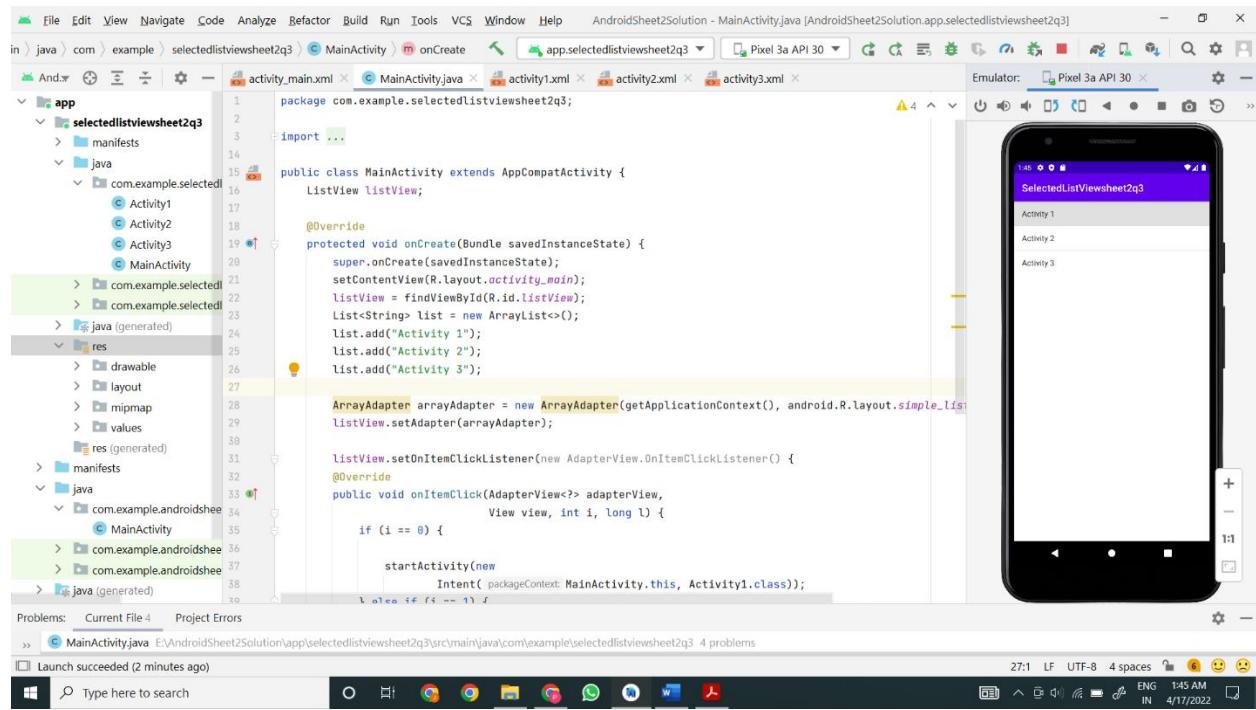
```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/teal_200"
    tools:context=".Activity3">

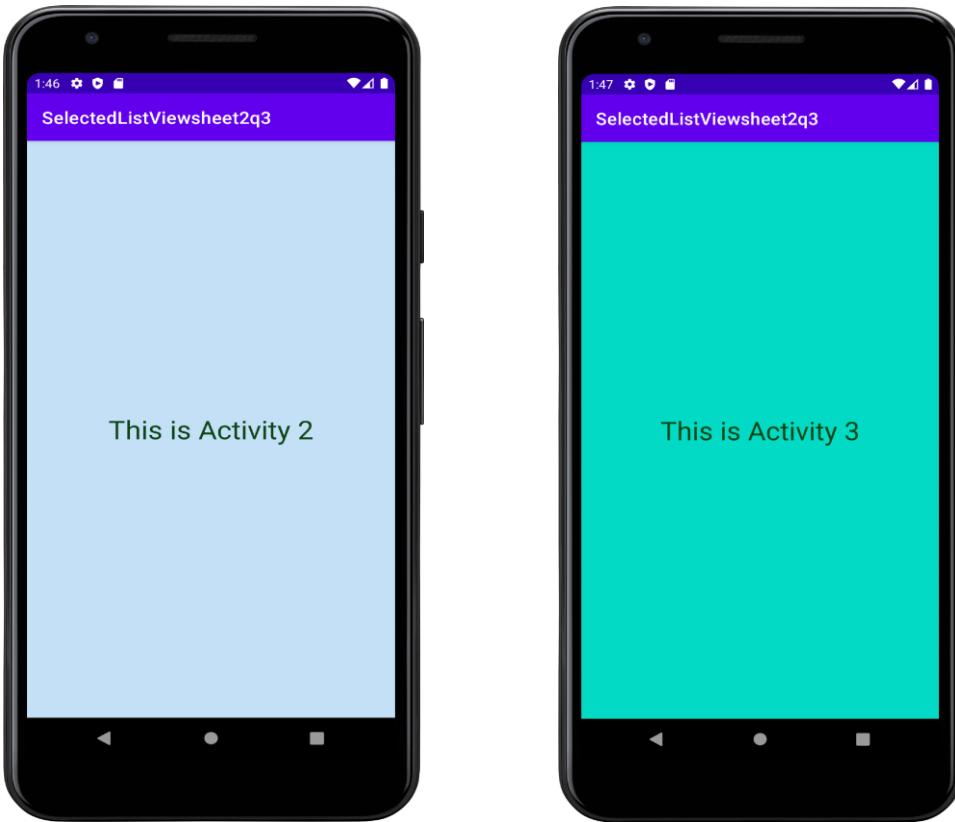
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:text="This is Activity 3"
        android:textColor="#0B4513"
```

```

        android:textSize="30sp" />
</RelativeLayout>

```





Ques. 4 Develop an application which shows list of departments in our university, on selection of particular department it should show the courses running by the respective department and on selection of particular course it should show the brief description of the respective course.

MainActivity.java

```
package com.example.departmentlistsheet2q4;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import java.util.ArrayList;
```

```

public class MainActivity extends AppCompatActivity {
    ListView deptlistView;
    ArrayList<String> depts;
    ArrayAdapter<String> adapter;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        deptlistView = (ListView) findViewById(R.id.deptlistView);
        depts = new ArrayList<>();
        depts.add("Faculty of Computer Science and Information Technology");
        depts.add("Faculty of Education");
        adapter = new
    ArrayAdapter<>(getApplicationContext(), android.R.layout.simple_list_item_1,
    depts);
        deptlistView.setAdapter(adapter);
        deptlistView.setOnItemClickListener(new
    AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> adapterView, View view, int
    i, long l) {
                if (i == 0) {
                    startActivity(new
    Intent(MainActivity.this,CSandIT.class));
                } else if (i == 1) {
                    startActivity(new
    Intent(MainActivity.this,Education.class));
                }
            }
        });
    }
}

```

activity_main.xml

```

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

    <RelativeLayout
        android:id="@+id/header"
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:background="#EBDF70">

        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_centerInParent="true"
            android:gravity="center"
            android:padding="15dp"
            android:text="Departments in VNSGU"
```

```

        android:textSize="25sp"
        android:textStyle="bold" />

    </RelativeLayout>

    <ListView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/deptlistView"
        android:layout_below="@+id/header"
        android:layout_margin="20dp"/>

</RelativeLayout>

```

CSandIT.java

```

package com.example.departmentlistsheet2q4;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;
import java.util.ArrayList;

public class CSandIT extends AppCompatActivity {
    ListView CSandITListView;
    ArrayList<String> courses;
    ArrayAdapter<String> adapter;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_csand_it);
        CSandITListView = findViewById(R.id.CSandITcourseListView);
        courses = new ArrayList<>();
        courses.add("Department of Computer Science");
        courses.add("Department of Information and Communication
Technology");
        adapter =new
        ArrayAdapter<>(getApplicationContext(), android.R.layout.simple_list_item_1,
        courses);
        CSandITListView.setAdapter(adapter);
        CSandITListView.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> adapterView, View view,
            int i, long l) {
                String cname = (String)
                    adapterView.getItemAtPosition(i);
                if (i == 0) {
                    startActivity(new
                    Intent(CSandIT.this,ComputerScience.class));

```

```

        } else {
            Toast.makeText(getApplicationContext(), "Create Content
for " + cname , Toast.LENGTH_SHORT).show();
        }
    });
}
}

```

activity_csand_it.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <RelativeLayout
        android:id="@+id/header"
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:background="#EBDF70">
        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Faculty of CS and IT "
            android:textSize="25sp"
            android:textStyle="bold"
            android:padding="15dp"
            android:gravity="center"
            android:layout_centerInParent="true"/>
    </RelativeLayout>
    <ListView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/CSAndITcourseListView"
        android:layout_below="@+id/header"
        android:layout_margin="20dp"/>
</RelativeLayout>

```

activity_computer_science.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <RelativeLayout
        android:id="@+id/header"
        android:layout_width="match_parent"

```

```

        android:layout_height="100dp"
        android:background="#EBDF70">
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Department Of Computer Science"
        android:textSize="25sp"
        android:textStyle="bold"
        android:padding="15dp"
        android:gravity="center"
        android:layout_centerInParent="true"/>
</RelativeLayout>
<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="481dp"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginStart="22dp"
    android:layout_marginTop="180dp"
    android:layout_marginEnd="23dp"
    android:layout_marginBottom="70dp"
    android:text="The department of computer science has a very rich
alumni base. The alumni of the department of computer science have an evident
presence in most of the countries in all most all the continents. Many of
them have senior positions in multinational companies, and few of the alumni
have turned into successful entrepreneurs. The Computer Science studies that
started in a very small room have now turned out to be a huge department with
state-of-the-art computing and other infrastructural facilities spread in a
building of more than 30,000 square feet."
    android:textSize="20sp" />
</RelativeLayout>

```

activity_education.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <RelativeLayout
        android:id="@+id/header"
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:background="#EBDF70">
        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Faculty of Education"
            android:textSize="25sp"
            android:textStyle="bold"

```

```

        android:padding="15dp"
        android:gravity="center"
        android:layout_centerInParent="true"/>
    
```

```
</RelativeLayout>
```

```
<ListView
```

```

        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/EducationListView"
        android:layout_below="@+id/header"
        android:layout_margin="20dp"/>

```

```
</RelativeLayout>
```

activity_educationdept.xml

```

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

```
<RelativeLayout
```

```

        android:id="@+id/header"
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:background="#EBDF70">

```

```
<TextView
```

```

        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Department of Education"
        android:textSize="25sp"
        android:textStyle="bold"
        android:padding="15dp"
        android:gravity="center"
        android:layout_centerInParent="true"/>

```

```
</RelativeLayout>
```

```
<TextView
```

```

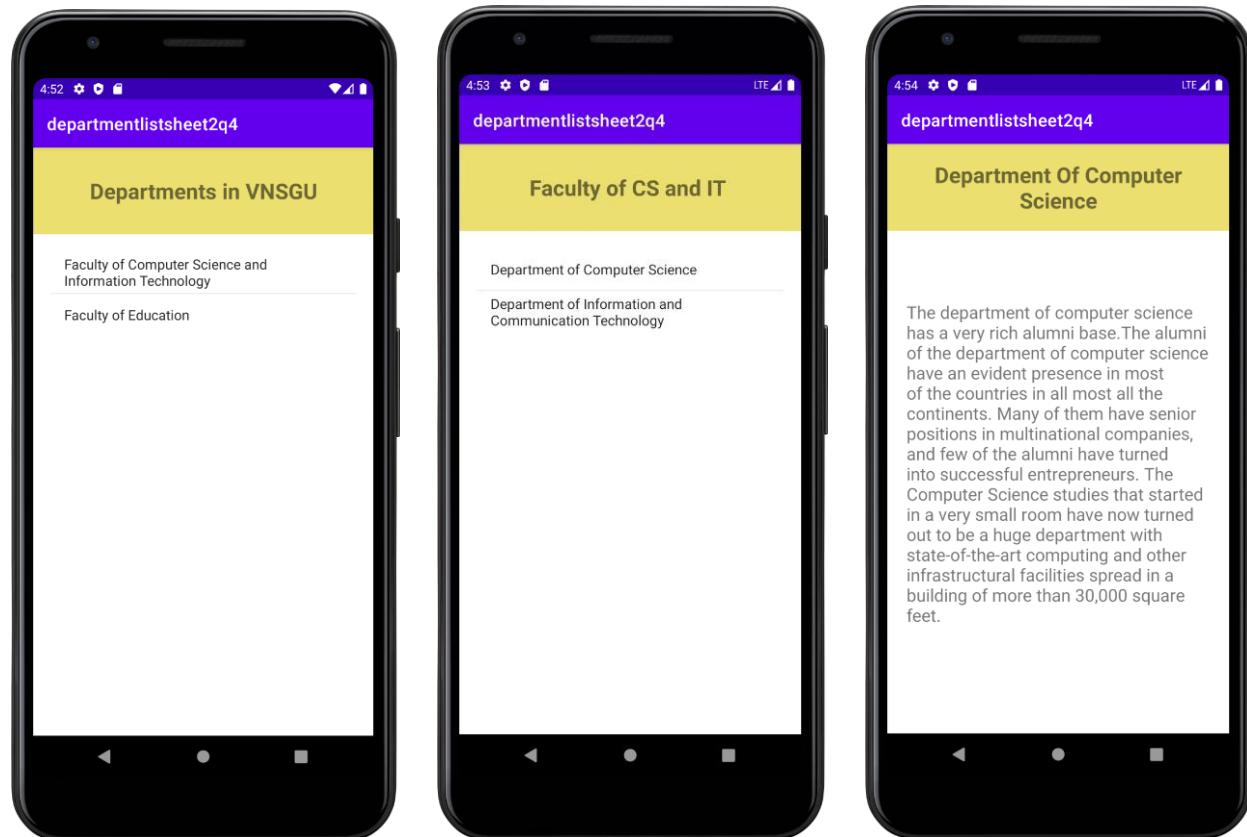
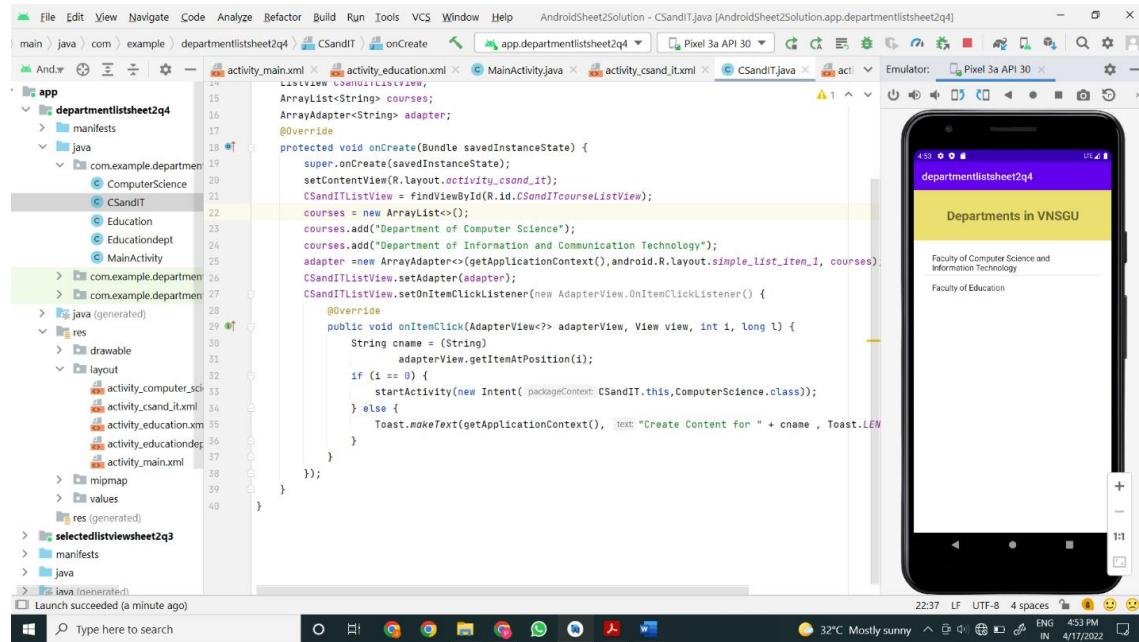
        android:id="@+id/textView"
        android:layout_width="365dp"
        android:layout_height="wrap_content"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginStart="22dp"
        android:layout_marginTop="180dp"
        android:layout_marginEnd="24dp"
        android:layout_marginBottom="102dp"
        android:text="Education Department of this VNSG University has its
origin from 1973. The education department is the only Grant in Aid
institution in the entire south Gujarat Region (across seven districts i.e.
Surat, Navsari, Valsad, Narmada, Dang, Bharuch, Tapi and UT of Daman and
Dadra and Nagar Haveli) that provide P.G. courses in the education faculty.
The department also has one self-finance unit for the M.Ed. programme to

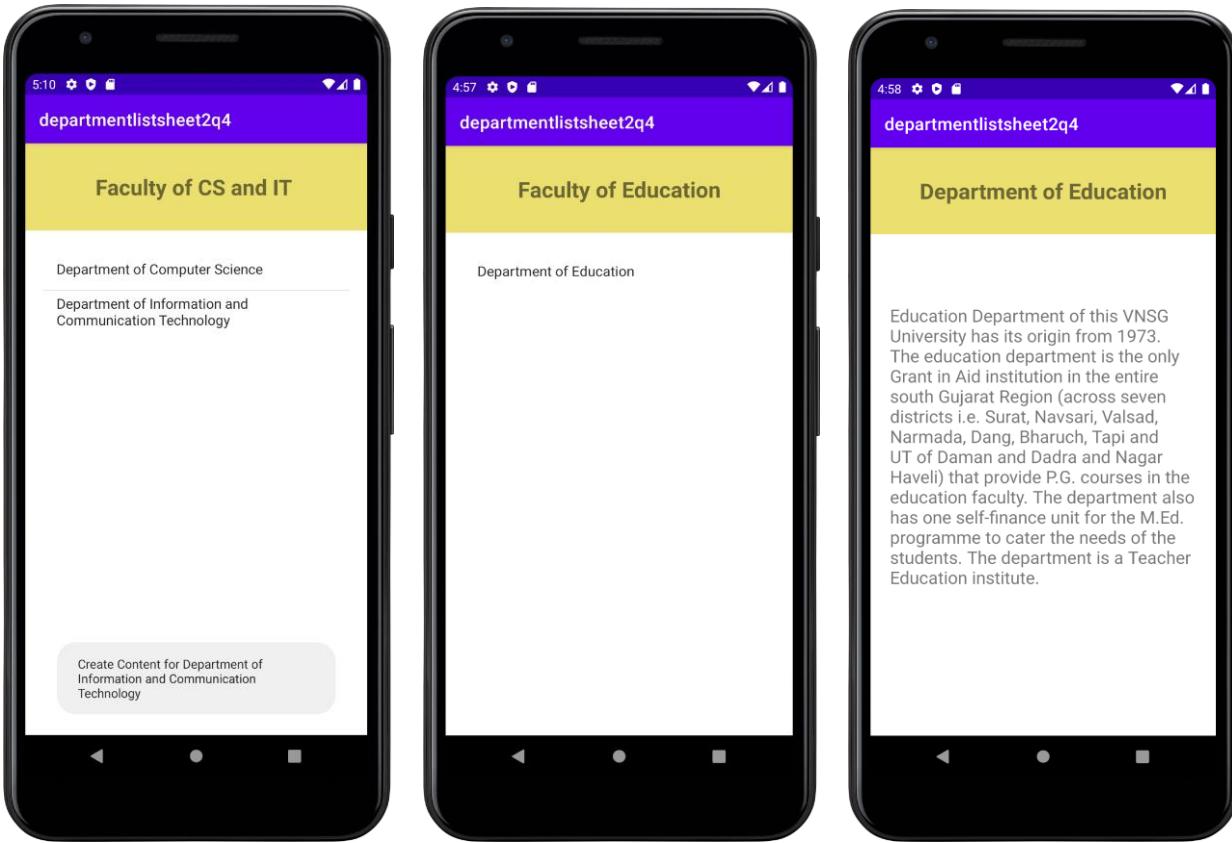
```

cater the needs of the students. The department is a Teacher Education institute. "

```
        android:textSize="20sp" />
```

```
</RelativeLayout>
```





Ques 5. Develop an application employee information management having the functionality of insert, update, delete, display and record navigation operations on SQLite database.

MainActivity.java

```

package com.example.employeecrudsheets2q5;

import androidx.appcompat.app.AppCompatActivity;
import android.content.ContentValues;
import android.content.Intent;
import android.database.sqlite.SQLiteDatabase;
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 {
    private static DBmain dbmain;
    private static EditText txtName, txtDept, txtSalary;
    private static Button submitbtn, editbtn, displaybtn;
    private static SQLiteDatabase sqLiteDatabase;
    private static int id = 0;

```

```

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    dbmain = new DBmain(MainActivity.this);

    findid();
    getData();
    clear();
    editData();
}

private void editData() {
    if(getIntent().getBundleExtra("userdata") != null){
        Bundle bundle = getIntent().getBundleExtra("userdata");
        id=bundle.getInt("id");
        txtName.setText(bundle.getString("empname"));
        txtDept.setText(bundle.getString("deptname"));
        txtSalary.setText(bundle.getString("salary"));
        editbtn.setVisibility(View.VISIBLE);
        submitbtn.setVisibility(View.GONE);
    }
}

private void clear() {
    txtName.setText("");
    txtDept.setText("");
    txtSalary.setText("");
}

private void getData() {

    submitbtn.setOnClickListener(new View.OnClickListener()
    {
        @Override
        public void onClick(View view) {
            ContentValues contentValues = new ContentValues();
            contentValues.put("empname",txtName.getText().toString());
            contentValues.put("deptname",txtDept.getText().toString());
            contentValues.put("salary",txtSalary.getText().toString());
            sqLiteDatabase = dbmain.getWritableDatabase();
            Long resid = sqLiteDatabase.insert("employeetable",
                    null,contentValues);
            if(resid != null){
                Toast.makeText(MainActivity.this, "Inserted
Successfully", Toast.LENGTH_SHORT).show();
                clear();
            }else{
                Toast.makeText(MainActivity.this, "Error while inserting
the record", Toast.LENGTH_SHORT).show();
            }
        }
    });

    displaybtn.setOnClickListener(new View.OnClickListener()
    {
        @Override
        public void onClick(View view) {
            startActivity(new
Intent(MainActivity.this,DisplayData.class));
        }
    });
}

```

```

        }
    });

    editbtn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            ContentValues contentValues = new ContentValues();
            contentValues.put("empname", txtName.getText().toString());
            contentValues.put("deptname", txtDept.getText().toString());
            contentValues.put("salary", txtSalary.getText().toString());
            sqLiteDatabase = dbmain.getWritableDatabase();
            long resid = sqLiteDatabase.update("employeetable",
                contentValues, "id="+id,null);
            if(resid != -1){
                Toast.makeText(MainActivity.this, "Updated Successfully",
Toast.LENGTH_SHORT).show();
                submitbtn.setVisibility(View.VISIBLE);
                editbtn.setVisibility(View.GONE);
                clear();
            }else{
                Toast.makeText(MainActivity.this, "Error while updating
record", Toast.LENGTH_SHORT).show();
            }
        }
    });
}

private void findid() {
    txtName = (EditText) findViewById(R.id.txtName);
    txtDept = (EditText) findViewById(R.id.txtDept);
    txtSalary = (EditText) findViewById(R.id.txtSalary);
    submitbtn = findViewById(R.id.btn_submit);
    editbtn = findViewById(R.id.btn_edit);
    displaybtn = findViewById(R.id.btn_display);
}
}

```

activity_main.xml

```

<?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"
    tools:context=".MainActivity"
    android:orientation="vertical"
    android:padding="20dp"
>
<EditText
    android:id="@+id/txtName"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter Name"
    android:layout_marginTop="20dp"/>

```

```

<EditText
    android:id="@+id/txtDept"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter Department Name"
    android:layout_marginTop="20dp"/>
<EditText
    android:id="@+id/txtSalary"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter Salary"
    android:layout_marginTop="20dp"/>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_margin="10dp">
    <Button
        android:id="@+id	btn_submit"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="Submit"
        android:layout_marginLeft="5dp"/>
    <Button
        android:visibility="gone"
        android:id="@+id	btn_edit"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="Submit"
        android:layout_marginLeft="5dp"/>
    <Button
        android:id="@+id	btn_display"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="Display"
        android:layout_marginLeft="5dp"/>


```

DBmain.java

```

package com.example.employeecrudsheets2q5;

import android.content.Context;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import androidx.annotation.Nullable;
public class DBmain extends SQLiteOpenHelper {
    public DBmain(@Nullable Context context) {
        super(context, "employeedb", null, 1);
    }
    @Override

```

```

    public void onCreate(SQLiteDatabase db) {
        String sql = "create table employeetable(id integer primary key,
empname text, deptname text, salary text)";
        db.execSQL(sql);
    }
    @Override
    public void onUpgrade(SQLiteDatabase db, int i, int i1) {
        String sql = "drop table if exists employeetable";
        db.execSQL(sql);
        onCreate(db);
    }
}

```

DisplayData.java

```

package com.example.employeecrudsheets2q5;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.ImageView;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;
public class DisplayData extends AppCompatActivity {
    DBmain dBmain;
    SQLiteDatabase sqLiteDatabase;
    ListView listView;
    String []name;
    String []deptname;
    String []salary;
    int []id;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_display_data);
        dBmain = new DBmain(DisplayData.this);
    //create method
        findid();
        dis();
    }
    private void dis() {
        sqLiteDatabase = dBmain.getReadableDatabase();
        Cursor cursor = sqLiteDatabase.rawQuery("select * from
employeetable",null);
        if(cursor.getCount()>0){
            id = new int[cursor.getCount()];
            name = new String[cursor.getCount()];
            deptname = new String[cursor.getCount()];
        }
    }
}

```

```

        salary = new String[cursor.getCount()];
        int i = 0;
        while(cursor.moveToNext()){
            id[i] = cursor.getInt(0);
            name[i] = cursor.getString(1);
            deptname[i] = cursor.getString(2);
            salary[i] = cursor.getString(3);
            i++;
        }
        Custom adapter = new Custom();
        listView.setAdapter(adapter);
    }else{
        startActivity(new Intent(DisplayData.this,
                                MainActivity.class));
    }
}
private void findid() {
    listView = findViewById(R.id.listView);
}
private class Custom extends BaseAdapter {
    @Override
    public int getCount() {
        return name.length;
    }
    @Override
    public Object getItem(int i) {
        return null;
    }
    @Override
    public long getItemId(int i) {
        return 0;
    }
    @Override
    public View getView(int i, View view, ViewGroup viewGroup) {
        TextView textView;
        ImageView edit,delete;
        view =
LayoutInflator.from(DisplayData.this).inflate(R.layout.activity_singledata,
viewGroup,false);
        textView = view.findViewById(R.id.txt_name);
        edit = view.findViewById(R.id.edit_data);
        delete = view.findViewById(R.id.delete_data);
        textView.setText(name[i]);
        edit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Bundle bundle = new Bundle();
                bundle.putInt("id",id[i]);
                bundle.putString("empname",name[i]);
                bundle.putString("deptname",deptname[i]);
                bundle.putString("salary",salary[i]);
                Intent intent = new Intent(DisplayData.this,
                                            MainActivity.class);
                intent.putExtra("userdata",bundle);
                startActivity(intent);
            }
        });
    }
}

```

```

        delete.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                SQLiteDatabase = dBmain.getReadableDatabase();
                long resid =
                    sqLiteDatabase.delete("employeetable","id="+id[i],null);
                if(resid != -1){
                    Toast.makeText(DisplayData.this,"Record
Deleted",Toast.LENGTH_SHORT).show();
                    dis();
                }else{
                    Toast.makeText(DisplayData.this,"Record not
Deleted",Toast.LENGTH_SHORT).show();
                }
            });
            return view;
        }
    }
}

```

activity_display_data.xml

```

<?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"
    tools:context=".DisplayData"
    android:orientation="vertical">
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Employees"
        android:textSize="20dp"
        android:textStyle="bold"
        android:gravity="center"/>
    <ListView
        android:id="@+id/listView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        />
</LinearLayout>

```

activity_singledata.xml

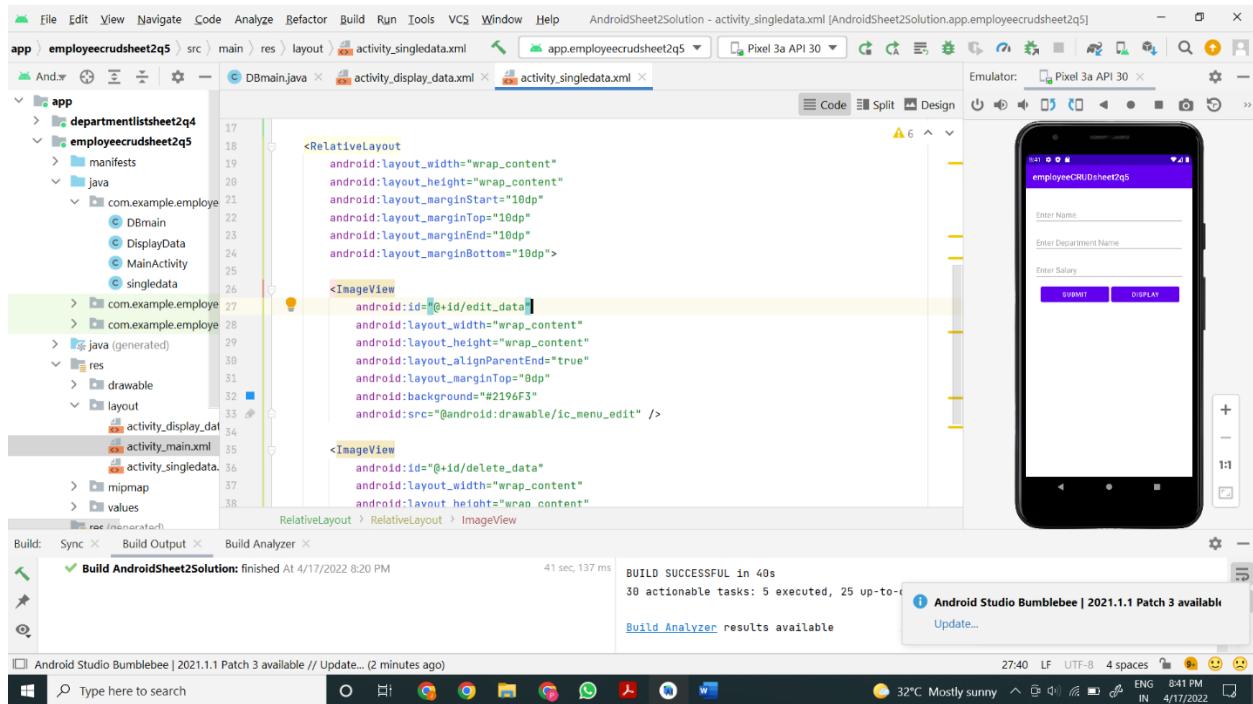
```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="#FFFFFF"
    android:orientation="vertical">

    <TextView
        android:id="@+id/txt_name"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:layout_marginLeft="50dp"
        android:layout_marginTop="10dp"
        android:text="@string/app_name"
        android:textSize="18dp" />

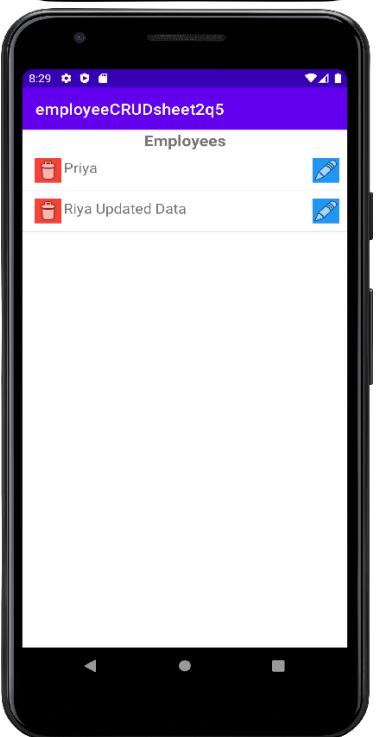
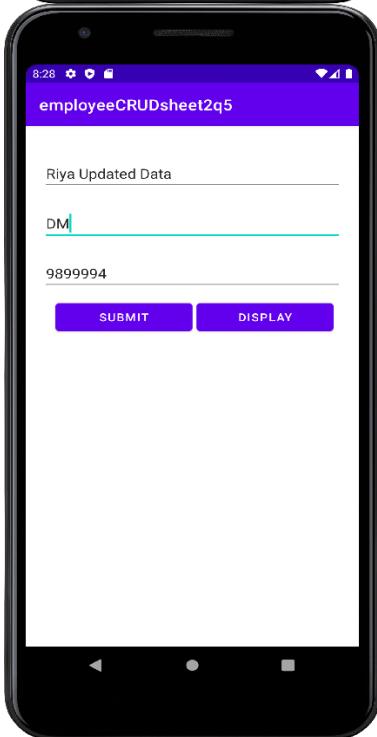
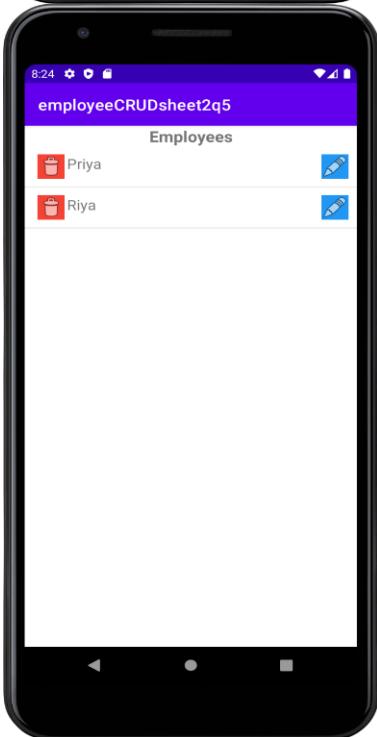
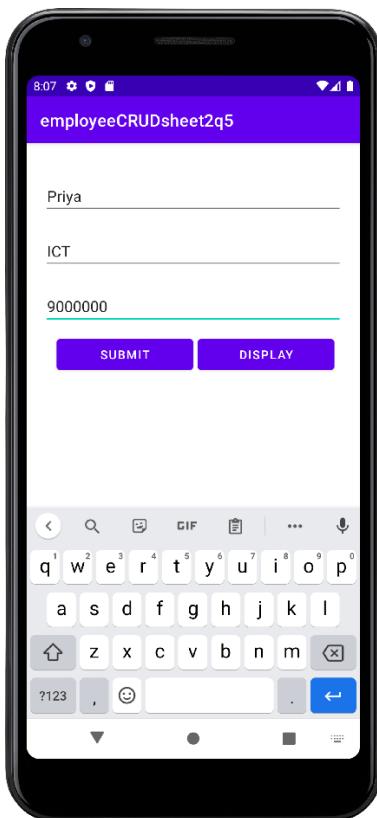
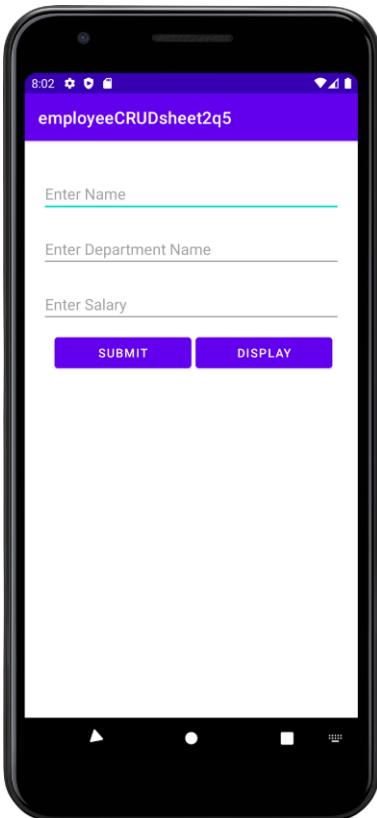
    <RelativeLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="10dp"
        android:layout_marginTop="10dp"
        android:layout_marginEnd="10dp"
        android:layout_marginBottom="10dp">

        <ImageView
            android:id="@+id/edit_data"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignParentEnd="true"
            android:layout_marginTop="0dp"
            android:background="#2196F3"
            android:src="@android:drawable/ic_menu_edit" />

        <ImageView
            android:id="@+id/delete_data"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="5dp"
            android:layout_marginTop="0dp"
            android:background="#F44336"
            android:src="@android:drawable/ic_menu_delete" />
    
```



	id	empname	deptname	salary
1	1	Priya	ICT	9000000





Ques 6. Create an application that will change color of the screen, based on selected options from the menu.

MainActivity.java

```
package com.example.colormenusheet2q7;
import androidx.appcompat.app.AppCompatActivity;

import android.graphics.Color;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.LinearLayout;
public class MainActivity extends AppCompatActivity {
    LinearLayout l;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        l=findViewById(R.id.linear);
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.mymenu, menu);
        return true;
    }
}
```

```

@Override
public boolean onOptionsItemSelected(MenuItem item) {
    if(item.getItemId()==R.id.option_menu_item_1)
    {
        l.setBackgroundColor(Color.RED);
    }
    if(item.getItemId()==R.id.option_menu_item_2)
    {
        l.setBackgroundColor(Color.GREEN);
    }
    if(item.getItemId()==R.id.option_menu_item_3)
    {
        l.setBackgroundColor(Color.BLUE);
    }
    return super.onOptionsItemSelected(item);
}
}

```

activity_main.xml

```

package com.example.colormenusheet2q7;
import androidx.appcompat.app.AppCompatActivity;

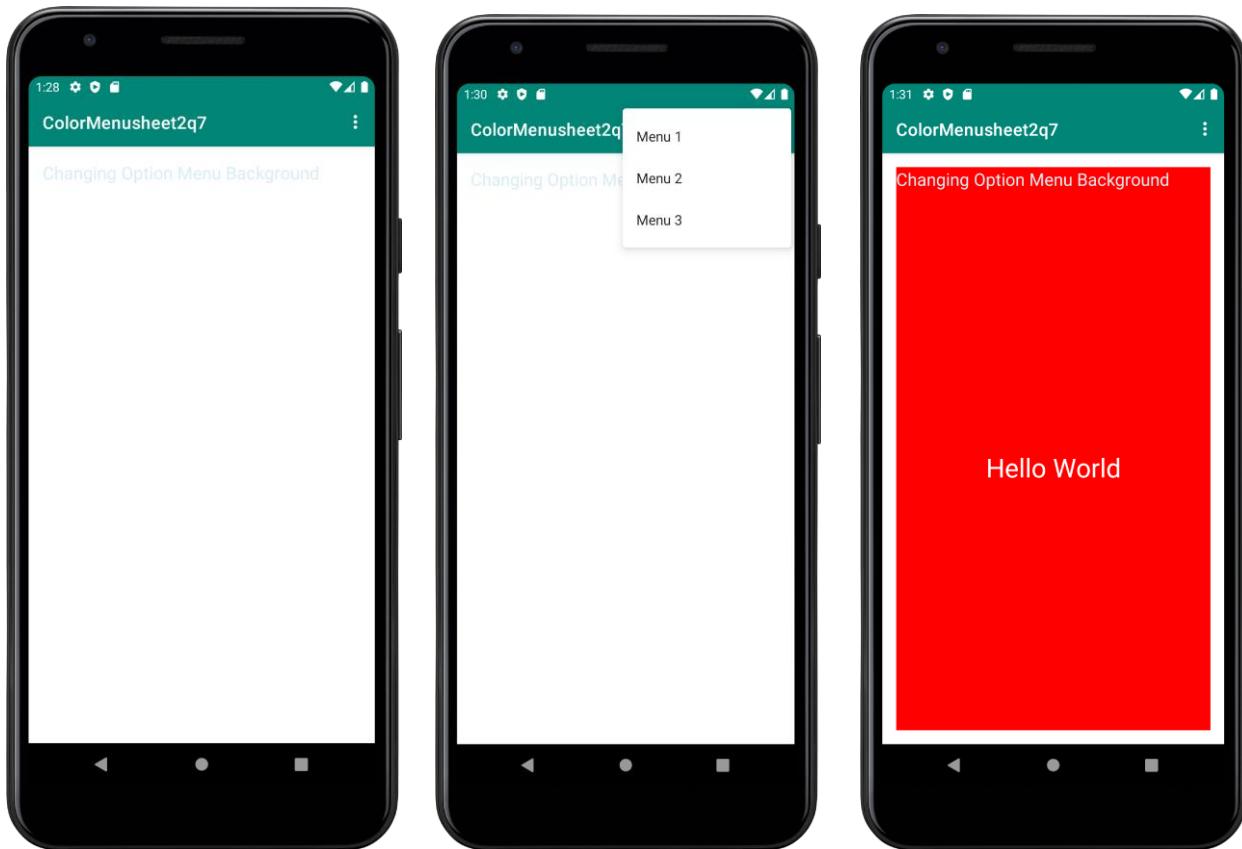
import android.graphics.Color;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.LinearLayout;
public class MainActivity extends AppCompatActivity {
    LinearLayout l;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        l=findViewById(R.id.linear);
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.mymenu, menu);
        return true;
    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        if(item.getItemId()==R.id.option_menu_item_1)
        {
            l.setBackgroundColor(Color.RED);
        }
        if(item.getItemId()==R.id.option_menu_item_2)
        {
            l.setBackgroundColor(Color.GREEN);
        }
        if(item.getItemId()==R.id.option_menu_item_3)
        {
            l.setBackgroundColor(Color.BLUE);
        }
    }
}

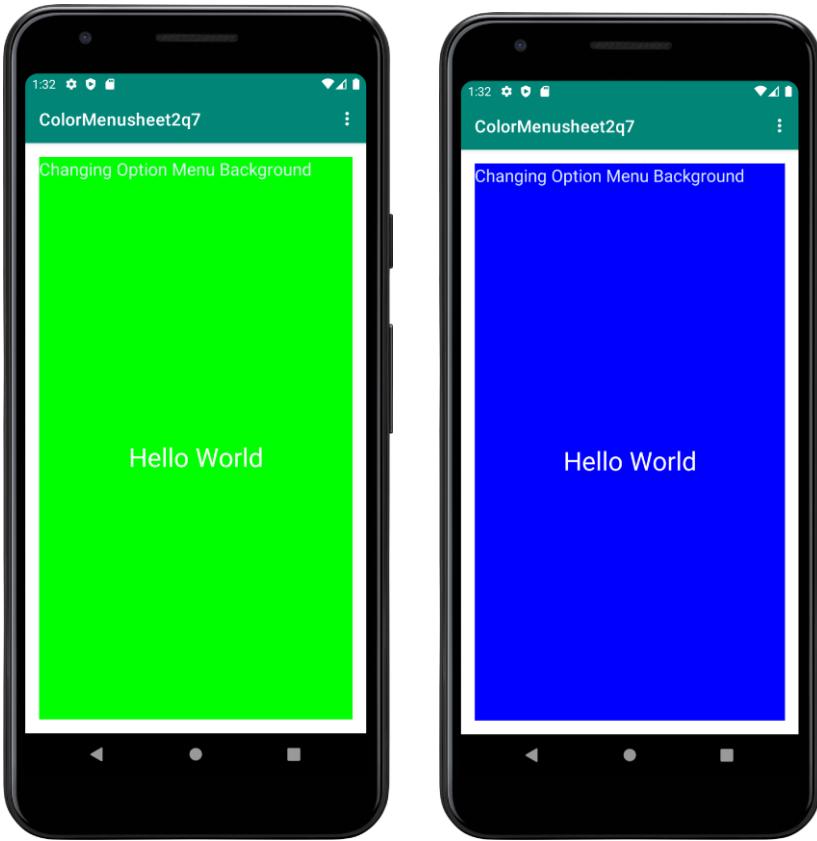
```

```
        return super.onOptionsItemSelected(item);
    }
}
```

mymenu.xml

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android"
      xmlns:app="http://schemas.android.com/apk/res-auto">
    <item
        android:id="@+id/option_menu_item_1"
        android:orderInCategory="1"
        android:title="Menu 1"
        app:showAsAction="never" />
    <item
        android:id="@+id/option_menu_item_2"
        android:orderInCategory="2"
        android:title="Menu 2"
        app:showAsAction="never" />
    <item
        android:id="@+id/option_menu_item_3"
        android:orderInCategory="3"
        android:title="Menu 3"
        app:showAsAction="never" />
</menu>
```





Ques. 7 Create an application that will pass some number to the next screen, and on the next screen that number of items should be display in the list.

MainActivity.java

```
package com.example.numberscreensheet2q7;
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends Activity implements OnClickListener {

    EditText ed1;
    Button btnshow;
    @Override
    public void onCreate(Bundle savedInstanceState) {
```

```

        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        ed1=findViewById(R.id.ed1);
        btnshow=findViewById(R.id.b1);

        btnshow.setOnClickListener(this);

    }

    @Override
    public void onClick(View v) {
        if(v.getId()==btnshow.getId())
        {
            Intent i=new Intent(this,Activity2.class);
            i.putExtra("num", Integer.parseInt(ed1.getText().toString()));
            this.startActivity(i);
        }
    }
}

```

activity_main.java

```

<?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"
    android:background="#FFFFFF"
    android:backgroundTint="#F8E646"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/ed1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:minHeight="48dp"
        android:text="Enter a Number"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.113" />

    <Button
        android:id="@+id/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="SHOW"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"

```

```
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.33" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity2.java

```
package com.example.numberscreensheet2q7;

import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;

public class Activity2 extends Activity implements OnItemClickListener {

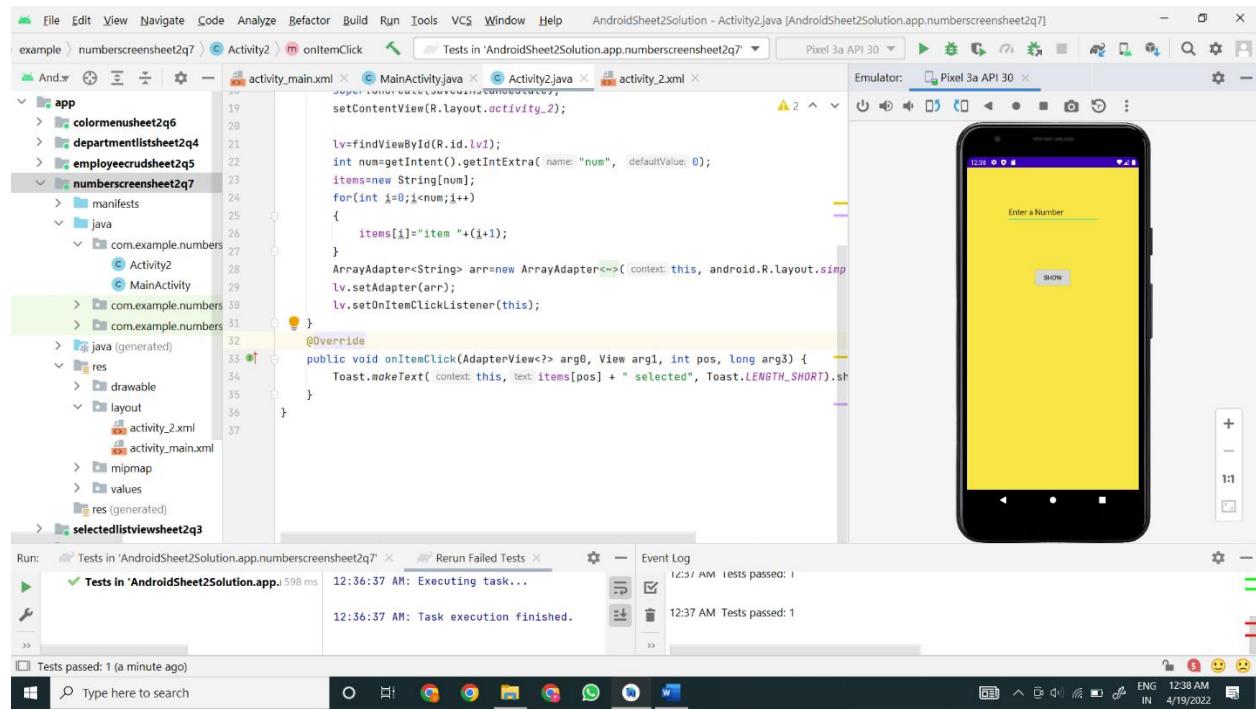
    ListView lv;
    String items[];
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_2);

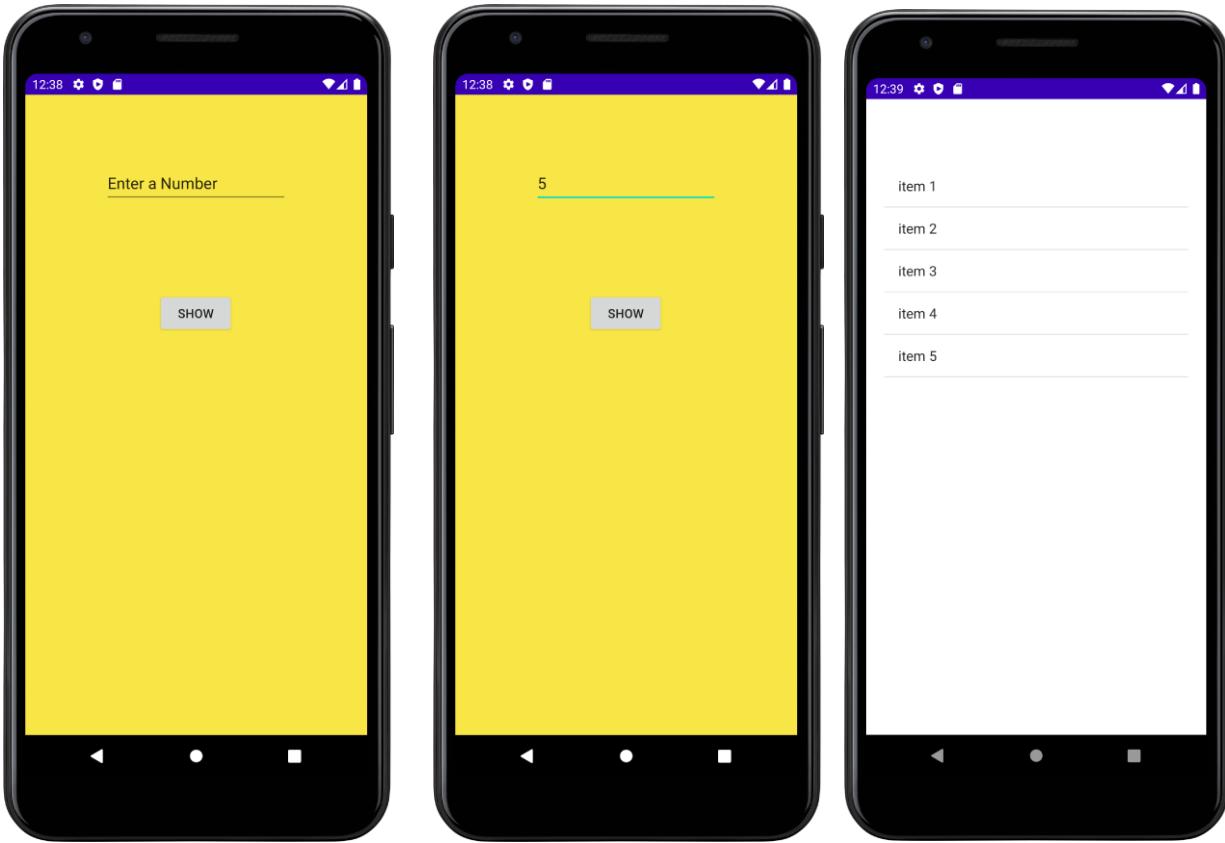
        lv=findViewById(R.id.lv1);
        int num=getIntent().getIntExtra("num", 0);
        items=new String[num];
        for(int i=0;i<num;i++)
        {
            items[i]="item "+(i+1);
        }
        ArrayAdapter<String> arr=new ArrayAdapter<String>(this,
        android.R.layout.simple_list_item_1,items);
        lv.setAdapter(arr);
        lv.setOnItemClickListener(this);
    }
    @Override
    public void onItemClick(AdapterView<?> arg0, View arg1, int pos, long arg3) {
        Toast.makeText(this,items[pos] + " selected",
        Toast.LENGTH_SHORT).show();
    }
}
```

activity_2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:backgroundTint="#FFFFFF">

    <ListView
        android:id="@+id/lv1"
        android:layout_width="351dp"
        android:layout_height="642dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.82" />
</androidx.constraintlayout.widget.ConstraintLayout>
```





Ques 8. Create an application that will create database with table of User credential.

MainActivity.java

```
package com.example.usercredentialsheet2q8;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
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 username, password, repassword;
    Button signup, signin;
    DBHelper DB;
    @Override
```

```

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

    username = (EditText) findViewById(R.id.username);
    password = (EditText) findViewById(R.id.password);
    repassword = (EditText) findViewById(R.id.repassword);
    signup = (Button) findViewById(R.id.btnsignup);
    signin = (Button) findViewById(R.id.btnsignin);
    DB = new DBHelper(this);

    signup.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            String user = username.getText().toString();
            String pass = password.getText().toString();
            String repass = repassword.getText().toString();

            if(user.equals("") || pass.equals("") || repass.equals("")){
                Toast.makeText(MainActivity.this, "Please enter all the
fields", Toast.LENGTH_SHORT).show();
            } else{
                if(pass.equals(repass)){
                    Boolean checkuser = DB.checkusername(user);
                    if(checkuser==false){
                        Boolean insert = DB.insertData(user, pass);
                        if(insert==true){
                            Toast.makeText(MainActivity.this, "Registered
successfully", Toast.LENGTH_SHORT).show();
                            Intent intent = new
Intent(getApplicationContext(),HomeActivity.class);
                            startActivity(intent);
                        } else{
                            Toast.makeText(MainActivity.this,
                            "Registration failed", Toast.LENGTH_SHORT).show();
                        }
                    } else{
                        Toast.makeText(MainActivity.this, "User already
exists! please sign in", Toast.LENGTH_SHORT).show();
                    }
                } else{
                    Toast.makeText(MainActivity.this, "Passwords not
matching..retyping is required", Toast.LENGTH_SHORT).show();
                }
            }
        });
    signin.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent intent = new Intent(getApplicationContext(),
LoginActivity.class);
            startActivity(intent);
        }
    });
}

```

activity_main.xml

```
<?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="#FFFF20"
    android:padding="10dp"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/username"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="50dp"
        android:hint="User Name"
        android:textSize="20sp" />

    <EditText
        android:id="@+id/password"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/username"
        android:layout_marginTop="50dp"
        android:hint="Password"
        android:textSize="20sp" />

    <EditText
        android:id="@+id/repassword"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/password"
        android:layout_marginTop="50dp"
        android:hint="Confirm Password"
        android:textSize="20sp" />

    <Button
        android:id="@+id/btnsignup"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/repassword"
        android:layout_marginTop="50dp"
        android:text="Sign Up"
        android:textSize="20sp" />

    <Button
        android:id="@+id/btnsignin"
        android:layout_width="372dp"
        android:layout_height="wrap_content"
        android:layout_below="@+id/btnsignup"
        android:layout_alignParentStart="true"
        android:layout_alignParentEnd="true"
        android:layout_marginStart="16dp"
        android:layout_marginTop="29dp"
```

```

        android:layout_marginEnd="13dp"
        android:text="Already Have an Account? Sign in here"
        android:textSize="12sp" />

    </RelativeLayout>

```

DBHelper.java

```

package com.example.usercredentialsheet2q8;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

public class DBHelper extends SQLiteOpenHelper {
    public static final String DBNAME = "Login.db";
    public DBHelper(Context context) { super(context, "Login.db", null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase MyDB) {
        MyDB.execSQL("create Table users(username TEXT primary key, password
TEXT)");
    }

    @Override
    public void onUpgrade(SQLiteDatabase MyDB, int i, int i1) {
        MyDB.execSQL("drop Table if exists users");
    }

    public Boolean insertData(String username, String password){
        SQLiteDatabase MyDB = this.getWritableDatabase();
        ContentValues contentValues= new ContentValues();
        contentValues.put("username", username);
        contentValues.put("password", password);
        long result = MyDB.insert("users", null, contentValues);
        if(result== -1) return false;
        else
            return true;
    }

    public Boolean checkusername(String username) {
        SQLiteDatabase MyDB = this.getWritableDatabase();
        Cursor cursor = MyDB.rawQuery("Select * from users where username =
?", new String[]{username});
        if (cursor.getCount() > 0)
            return true;
        else
            return false;
    }

    public Boolean checkusernamepassword(String username, String password){
        SQLiteDatabase MyDB = this.getWritableDatabase();

```

```

        Cursor cursor = MyDB.rawQuery("Select * from users where username = ?  

and password = ?", new String[] {username,password});  

        if(cursor.getCount()>0)  

            return true;  

        else  

            return false;  

    }  

}

```

LoginActivity.java

```

package com.example.usercredentialsheet2q8;  

import androidx.appcompat.app.AppCompatActivity;  

import android.content.Intent;  

import android.os.Bundle;  

import android.view.View;  

import android.widget.Button;  

import android.widget.EditText;  

import android.widget.Toast;  

public class LoginActivity extends AppCompatActivity {
    EditText username, password;
    Button btnlogin;
    DBHelper DB;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);
        username = (EditText) findViewById(R.id.username1);
        password = (EditText) findViewById(R.id.password1);
        btnlogin = (Button) findViewById(R.id.btnsignin1);
        DB = new DBHelper(this);
        btnlogin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String user = username.getText().toString();
                String pass = password.getText().toString();

                if(user.equals("") || pass.equals("")){
                    Toast.makeText(LoginActivity.this, "Please enter all the
fields", Toast.LENGTH_SHORT).show();
                }else{
                    Boolean checkuserpass = DB.checkusernamepassword(user,
pass);
                    if(checkuserpass==true){
                        Toast.makeText(LoginActivity.this, "Sign in
successfull", Toast.LENGTH_SHORT).show();
                        Intent intent = new Intent(getApplicationContext(),
LoginsuccessActivity.class);
                        startActivity(intent);
                    }
                }
            }
        });
    }
}

```

```
        }else{
            Toast.makeText(LoginActivity.this, "Invalid
Credentials", Toast.LENGTH_SHORT).show();
        }
    }
});
```

activity_login.xml

```
<?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="#FFFF20"
    android:padding="10dp"
    tools:context=".LoginActivity">

    <EditText
        android:id="@+id/username1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="50dp"
        android:hint="User Name"
        android:textSize="20sp" />

    <EditText
        android:id="@+id/password1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/username1"
        android:layout_marginTop="50dp"
        android:hint="Password"
        android:textSize="20sp" />

    <Button
        android:id="@+id/btnsignin1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/password1"
        android:layout_marginTop="50dp"
        android:text="Sign in"
        android:textSize="20sp" />
</RelativeLayout>
```

activity_home.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#FFFF20"
    tools:context=".HomeActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="318dp"
        android:layout_height="229dp"
        android:layout_marginStart="56dp"
        android:layout_marginTop="108dp"
        android:text="Registered Successfully..."
        android:textColor="@color/black"
        android:textSize="34sp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity_loginsuccess.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#FFFF20"
    tools:context=".LoginsuccessActivity">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="306dp"
        android:layout_height="221dp"
        android:layout_marginStart="52dp"
        android:layout_marginTop="112dp"
        android:text="Logged in Successfully...."
        android:textColor="@color/black"
        android:textSize="34sp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

DB Browser for SQLite - E:\AndroidSheet2Solution\Login.db

Table: users	
1	priya
1	1234

file Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help AndroidSheet2Solution - MainActivity.java [AndroidSheet2Solution.app.usercredentialsheet2q8]

t2q8 src main java com example usercredentialsheet2q8 MainActivity app.usercredentialsheet2q8 Pixel 3a API 30

MainActivity.java activity_main.xml activity_home.xml MainActivity.java activity_login.xml Emulator: Pixel 3a API 30

```

1 package com.example.usercredentialsheet2q8;
2 import androidx.appcompat.app.AppCompatActivity;
3
4 import android.content.Intent;
5 import android.os.Bundle;
6 import android.view.View;
7 import android.widget.Button;
8 import android.widget.EditText;
9 import android.widget.Toast;
10
11 public class MainActivity extends AppCompatActivity {
12
13     EditText username, password, repassword;
14     Button signup, signin;
15     DBHelper DB;
16
17     protected void onCreate(Bundle savedInstanceState) {
18         super.onCreate(savedInstanceState);
19         setContentView(R.layout.activity_main);
20
21         username = (EditText) findViewById(R.id.username);
22         password = (EditText) findViewById(R.id.password);
23         repassword = (EditText) findViewById(R.id.repassword);
24         signup = (Button) findViewById(R.id.btnsignup);
25         signin = (Button) findViewById(R.id.btnsignin);
26         DB = new DBHelper(this);
27
28         signup.setOnClickListener(new View.OnClickListener() {
29             @Override
30             public void onClick(View view) {
31                 String user = username.getText().toString();
32                 String pass = password.getText().toString();
33                 String repass = repassword.getText().toString();
34
35                 if (pass.equals(repass)) {
36                     DB.addUser(user, pass);
37                     Intent i = new Intent(getApplicationContext(), HomeActivity.class);
38                     startActivity(i);
39                 } else {
40                     Toast.makeText(getApplicationContext(), "Passwords do not match", Toast.LENGTH_SHORT).show();
41                 }
42             }
43         });
44
45         signin.setOnClickListener(new View.OnClickListener() {
46             @Override
47             public void onClick(View view) {
48                 String user = username.getText().toString();
49                 String pass = password.getText().toString();
50
51                 if (DB.checkUser(user, pass)) {
52                     Intent i = new Intent(getApplicationContext(), HomeActivity.class);
53                     startActivity(i);
54                 } else {
55                     Toast.makeText(getApplicationContext(), "Incorrect Credentials", Toast.LENGTH_SHORT).show();
56                 }
57             }
58         });
59     }
60 }

```

