**DataView.java**

**package** com.labexam.labexamali;  
  
**import** android.database.Cursor;  
**import** android.database.sqlite.SQLiteDatabase;  
**import** android.database.sqlite.SQLiteOpenHelper;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.AdapterView;  
**import** android.widget.ArrayAdapter;  
**import** android.widget.ListView;  
**import** android.widget.Toast;  
  
**import** java.util.ArrayList;  
**public class** DataView **extends** AppCompatActivity {  
 SqlHelper **db**;  
 ArrayList<String> **listItem**;  
 ArrayAdapter **adapter**;  
 ListView **userList**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setTitle(**"Users List"**);  
 setContentView(R.layout.***activity\_data\_view***);  
 **userList** = (ListView)findViewById(R.id.***listView***);  
 **db** = **new** SqlHelper(**this**);  
 **listItem** = **new** ArrayList<>();  
 viewData();  
 **userList**.setOnItemClickListener(**new** AdapterView.OnItemClickListener() {  
 @Override  
 **public void** onItemClick(AdapterView<?> parent, View view, **int** position, **long** id) {  
 String text = **userList**.getItemAtPosition(position).toString();  
  
  
 }  
 });  
 }  
 **private void** viewData(){  
 Cursor cursor = **db**.ViewData();  
 **if**(cursor.getCount() == 0){  
 Toast.*makeText*(getApplicationContext(),**"No data in Database"**,Toast.***LENGTH\_LONG***).show();  
 }  
 **else**{  
 **while**(cursor.moveToNext()){  
 **listItem**.add(cursor.getString(0)+**"\r\n\n"**+**"FirstName : "**+cursor.getString(1)+**"\r\n"** +**"LastName : "**+cursor.getString(2)+**"\r\n"** +**"Email : "**+cursor.getString(3)+**"\r\n"** +**"Password : "**+cursor.getString(4)+**"\r\n"** +**"CNIC : "**+cursor.getString(6)+**"\r\n"** +**"Gender : "**+cursor.getString(5)+**"\r\n"**);  
  
 *// listItem.add(cursor.getString(1)+"\r\n"+cursor.getString(2)+"\r\n"+cursor.getString(3)+"\r\n"+cursor.getString(4)+"\r\n"+cursor.getString(5)+"\r\n"+cursor.getString(6)+"\r\n");*}  
 **adapter** = **new** ArrayAdapter<>(**this**,android.R.layout.***simple\_list\_item\_1***,**listItem**);  
 **userList**.setAdapter(**adapter**);  
 }  
 }  
}

**MainActivity.java**

**package** com.labexam.labexamali;  
  
**import** android.content.Intent;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.text.TextUtils;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.RadioButton;  
**import** android.widget.Toast;  
  
**import** java.util.regex.Pattern;  
  
**public class** MainActivity **extends** AppCompatActivity {  
  
 **public** EditText **Fname**;  
 **public** EditText **Lname**;  
 **public** EditText **Email**;  
 **public** EditText **Pass**;  
 **public** EditText **ConfirmPass**;  
 **public** EditText **Cnic**;  
 **public** RadioButton **radioMale**;  
 **public** RadioButton **radioFemale**;  
 **public** Button **btnSubmit**;  
  
 **public** String **emailPattern** = **"[a-zA-Z0-9.\_-]+@[a-z]+\\.+[a-z]+"**;  
 *//public String passregex = "\"[!@#$%^&\*(),.?:{}|<>]\"";* **public** String **gender**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 getSupportActionBar().setTitle(**"SignUp"**);  
 Button btnView;  
 btnView = (Button) findViewById(R.id.***btnview***);  
  
 btnView.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
  
 Intent i = **new** Intent(MainActivity.**this**,DataView.**class**);  
 startActivity(i);  
 }  
 });  
  
  
 **Fname** = (EditText) findViewById(R.id.***fname***);  
 **Lname** = (EditText) findViewById(R.id.***lname***);  
 **Email** = (EditText) findViewById(R.id.***email***);  
 **Pass** = (EditText) findViewById(R.id.***pass***);  
 **ConfirmPass** = (EditText) findViewById(R.id.***cpass***);  
 **Cnic** = (EditText) findViewById(R.id.***cnicc***);  
 **radioMale** = (RadioButton) findViewById(R.id.***rbtn\_male***);  
 **radioFemale** = (RadioButton) findViewById(R.id.***rbtn\_female***);  
 **btnSubmit** = (Button) findViewById(R.id.***btn\_submit***);  
  
 **final** SqlHelper db = **new** SqlHelper(**this**);  
  
 **final** Pattern patternpass = Pattern.*compile*(**"[!@#$%^&\*(),.?:{}|<>]"**);  
  
 **ConfirmPass**.setOnFocusChangeListener(**new** View.OnFocusChangeListener() {  
 @Override  
 **public void** onFocusChange(View v, **boolean** hasFocus) {  
 **if**(!**Pass**.getText().toString().equals(**ConfirmPass**.getText().toString())){  
 **ConfirmPass**.setError(**"Password doesnot match.."**);  
 }**else if** (!patternpass.matcher(**Pass**.getText().toString()).matches()){  
 **ConfirmPass**.setError(**"Include 1 special char"**);  
 }  
 }  
 });  
  
 **btnSubmit**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
  
 **if**(!FeildValidation())  
 {  
 Toast.*makeText*(getApplicationContext(),**"Error! Re-check Fields"**,Toast.***LENGTH\_LONG***).show();  
 }  
 **else if**(db.checkEmail(**Email**.getText().toString()))  
 {  
 **Email**.setError(**"Use Another Email- Already Exist"**);  
 Toast.*makeText*(getApplicationContext(),**"User Already Exist"**,Toast.***LENGTH\_LONG***).show();  
 }  
 **else** {  
 **if**(**radioMale**.isChecked())  
 {  
 **gender** = **radioMale**.getText().toString();  
 }  
 **else** {  
 **gender** =**radioFemale**.getText().toString();  
 }  
  
 db.insertUser(**Fname**.getText().toString(),  
 **Lname**.getText().toString(),  
 **Email**.getText().toString(),  
 **Pass**.getText().toString(),  
 **Email**.getText().toString(),  
 **Cnic**.getText().toString(),  
 **gender**);  
 Toast.*makeText*(getApplicationContext(),**"User Added"**,Toast.***LENGTH\_LONG***).show();  
 Intent intent = **new** Intent(MainActivity.**this**,DataView.**class**);  
 startActivity(intent);  
 }  
 }  
 });  
  
  
 }  
  
  
  
  
 **public** Boolean FeildValidation()  
 {  
 Pattern patternpass = **null**;  
 **if**(TextUtils.*isEmpty*(**Fname**.getText().toString()))  
 {  
 **Fname**.setError(**"Cannot Be Empty"**);  
 }  
 **else if**(TextUtils.*isEmpty*(**Lname**.getText().toString()))  
 {  
 **Lname**.setError(**"Cannot Be Empty"**);  
 }  
 **else if**(TextUtils.*isEmpty*(**Email**.getText().toString()))  
 {  
 **Email**.setError(**"Cannot Be Empty"**);  
 }  
 **else if**(TextUtils.*isEmpty*(**Pass**.getText().toString()))  
 {  
 **Pass**.setError(**"Cannot Be Empty"**);  
 }  
 **else if**(TextUtils.*isEmpty*(**ConfirmPass**.getText().toString()))  
 {  
 **ConfirmPass**.setError(**"Cannot Be Empty"**);  
 }  
 **else if**(TextUtils.*isEmpty*(**Cnic**.getText().toString()))  
 {  
 **Cnic**.setError(**"Cannot Be Empty"**);  
 }  
 **else if**(!(**radioMale**.isChecked() || **radioFemale**.isChecked()))  
 {  
 **radioMale**.setError(**"Select gender"**);  
 }  
 **else if**(!**Email**.getText().toString().matches(**emailPattern**))  
 {  
 **Email**.setError(**"Invalid Email Type"**);  
 }  
 **else if**(!**Pass**.getText().toString().equals(**ConfirmPass**.getText().toString()))  
 {  
 **ConfirmPass**.setError(**"Password NOT Matched"**);  
 }  
  
 **else if**( **Pass**.getText().toString().length()<4){  
 **Pass**.setError(**"Password at least 4 Characters and 1 Special Characters "**);  
 }  
  
 **else** {  
 **return true**;  
 }  
 **return false**;  
 }  
  
  
}

**SqlHelper.java**

**package** com.labexam.labexamali;  
  
**import** android.content.ContentValues;  
**import** android.content.Context;  
**import** android.database.Cursor;  
**import** android.database.sqlite.SQLiteDatabase;  
**import** android.database.sqlite.SQLiteOpenHelper;  
  
  
**public class** SqlHelper **extends** SQLiteOpenHelper {  
 **private static final int *db\_version***= 1;  
 **private static final** String ***db\_name*** = **"Application.db"**;  
 **private static final** String ***table\_user*** = **"user"**;  
  
 **private static final** String ***col\_user\_id*** = **"user\_id"**;  
 **private static final** String ***col\_user\_fname*** = **"user\_fname"**;  
 **private static final** String ***col\_user\_lname*** = **"user\_lname"**;  
 **private static final** String ***col\_user\_email*** = **"user\_email"**;  
 **private static final** String ***col\_user\_pass*** = **"user\_password"**;  
 **private static final** String ***col\_user\_cnic*** = **"user\_cnic"**;  
 **private static final** String ***col\_user\_gender*** = **"user\_gender"**;  
  
 **private** String **create\_user** = **"create table "** + ***table\_user*** + **"("** + ***col\_user\_id*** + **" integer primary key AUTOINCREMENT, "** + ***col\_user\_fname*** + **" text, "** + ***col\_user\_lname*** + **" text, "** + ***col\_user\_email*** + **" text,"** +***col\_user\_pass***+**" text,"** + ***col\_user\_cnic*** + **" text,"** + ***col\_user\_gender*** + **" text"**+**")"**;  
  
  
 **private** String **drop\_user** = **"drop table if exists "** + ***table\_user***;  
  
  
 **public** SqlHelper(Context context) {  
 **super**(context, ***db\_name***, **null**, ***db\_version***);  
 }  
 @Override  
 **public void** onCreate(SQLiteDatabase db) {  
  
  
 db.execSQL(**create\_user**);  
 }  
  
 @Override  
 **public void** onUpgrade(SQLiteDatabase db, **int** oldVersion, **int** newVersion) {  
 db.execSQL(**drop\_user**);  
 onCreate(db);  
 }  
  
  
 **public void** insertUser(String fname, String lname, String email, String pass, String cnic, String gender, String s) {  
 SQLiteDatabase db = **this**.getWritableDatabase();  
 ContentValues values = **new** ContentValues();  
 values.put(***col\_user\_fname***, fname);  
 values.put(***col\_user\_lname***, lname);  
 values.put(***col\_user\_email***, email);  
 values.put(***col\_user\_pass***, pass);  
 values.put(***col\_user\_cnic***, s);  
 values.put(***col\_user\_gender***, gender);  
 db.insert(***table\_user***, **null**, values);  
 db.close();  
 }  
  
  
  
 **public boolean** checkEmail(String email) {  
 String[] columns = {  
 ***col\_user\_id*** };  
 SQLiteDatabase db = **this**.getReadableDatabase();  
 String selection = ***col\_user\_email*** + **" = ?"**;  
  
 String[] selectionArgs = {email};  
 Cursor cursor = db.query(***table\_user***,  
 columns,  
 selection,  
 selectionArgs,  
 **null**,  
 **null**,  
 **null**);  
 **int** cursorCount = cursor.getCount();  
 cursor.close();  
 db.close();  
  
 **if** (cursorCount > 0) {  
 **return true**;  
 }  
  
 **return false**;  
 }  
  
 **public** Cursor ViewData(){  
 SQLiteDatabase db =**this**.getReadableDatabase();  
 String query = **"Select \* from "**+***table\_user***;  
 Cursor cursor = db.rawQuery(query,**null**);  
 **return** cursor;  
 }  
}

**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"  
 android:orientation="vertical"  
 android:padding="30dp"  
 android:background="@color/background"  
 tools:context=".MainActivity"**>  
  
<**ImageView  
 android:layout\_width="match\_parent"  
 android:layout\_height="100dp"  
  
  
 android:src="@drawable/login"**/>  
 <**android.support.design.widget.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:focusable="true"  
 android:focusableInTouchMode="true"** >  
  
 <**EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="First Name"  
 android:id="@+id/fname"  
 android:ems="10"  
 android:inputType="text"  
 android:textSize="22sp"**/>  
 </**android.support.design.widget.TextInputLayout**>  
 <**android.support.design.widget.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:focusable="true"  
 android:focusableInTouchMode="true"** >  
  
 <**EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Last Name"  
 android:id="@+id/lname"  
 android:layout\_marginTop="5dp"  
 android:ems="10"  
 android:inputType="text"  
 android:textSize="22sp"**/>  
 </**android.support.design.widget.TextInputLayout**>  
 <**android.support.design.widget.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:focusable="true"  
 android:focusableInTouchMode="true"** >  
  
 <**EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Email"  
 android:ems="10"  
 android:id="@+id/email"  
 android:inputType="text"  
 android:layout\_marginTop="5dp"  
 android:textSize="22sp"**/>  
 </**android.support.design.widget.TextInputLayout**>  
 <**android.support.design.widget.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:focusable="true"  
 android:focusableInTouchMode="true"  
 app:passwordToggleEnabled="true"** >  
  
 <**android.support.design.widget.TextInputEditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Password"  
 android:id="@+id/pass"  
 android:layout\_marginTop="5dp"  
 android:ems="10"  
 android:inputType="textPassword"  
 android:textSize="22sp"**/>  
 </**android.support.design.widget.TextInputLayout**>  
 <**android.support.design.widget.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:focusable="true"  
 android:focusableInTouchMode="true"  
 app:passwordToggleEnabled="true"** >  
  
 <**EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="Confirm Password"  
 android:id="@+id/cpass"  
 android:ems="10"  
 android:inputType="textPassword"  
 android:layout\_marginTop="5dp"  
 android:textSize="22sp"**/>  
 </**android.support.design.widget.TextInputLayout**>  
 <**android.support.design.widget.TextInputLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:focusable="true"  
 android:focusableInTouchMode="true"** >  
  
 <**EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:hint="CNIC"  
 android:ems="10"  
 android:layout\_marginTop="5dp"  
 android:id="@+id/cnicc"  
 android:inputType="text"  
 android:textSize="22sp"**/>  
 </**android.support.design.widget.TextInputLayout**>  
  
 <**RadioGroup  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"  
 android:weightSum="2"**>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:text="Gender "  
   
 android:textSize="22sp"** />  
  
 <**RadioButton  
 android:id="@+id/rbtn\_male"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="10dp"  
 android:layout\_marginTop="10dp"  
 android:layout\_weight="1"  
 android:text="Male"  
 android:textColor="#000000"  
 android:textSize="20sp"** />  
  
 <**RadioButton  
 android:id="@+id/rbtn\_female"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:layout\_weight="1"  
 android:text="Female"  
  
 android:textColor="#000000"  
 android:textSize="20sp"** />  
 </**RadioGroup**>  
  
  
 <**Button  
 android:id="@+id/btn\_submit"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColor="#ffffff"  
 android:textSize="20sp"  
  
 android:background="@drawable/button\_rounded"  
 android:layout\_marginTop="40dp"  
 android:text="SUBMIT"** />  
 <**Button  
 android:id="@+id/btnview"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:textColor="#ffffff"  
 android:textSize="20sp"  
 android:background="@drawable/button\_rounded"  
 android:layout\_marginTop="20dp"  
 android:text="List Users"** />  
</**LinearLayout**>

**Activity\_dataview.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:background="@color/background"  
 android:layout\_height="match\_parent"  
 tools:context=".DataView"**>  
 <**ListView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
  
 android:id="@+id/listView"**></**ListView**>  
</**LinearLayout**>

