1. Create a login/signup application and give login details changing functionality.

**MainActivity.Java**

**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.util.Log;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
  
**import** Data.DatabaseHelper;  
**import** Model.User;  
  
**public class** MainActivity **extends** AppCompatActivity {  
 EditText **editTextUsername**, **editTextPassword**;  
 Button **buttonLogin**;  
 TextView **textViewRegister**;  
 DatabaseHelper **db**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 getSupportActionBar().hide(); *// Hide actionbar*  
 **db** = **new** DatabaseHelper(**this**);  
 **editTextUsername** = findViewById(R.id.***editTextUsername***);  
 **editTextPassword** = findViewById(R.id.***editTextPassword***);  
 **buttonLogin** = findViewById(R.id.***buttonLogin***);  
  
 **textViewRegister** = findViewById(R.id.***textViewRegister***);  
 **textViewRegister**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 startActivity(**new** Intent(MainActivity.**this**, RegisterActivity.**class**));  
 }  
 });  
  
 **buttonLogin**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {

//trim() “normalize” all spacing.leaves just one space between all words inside the string.  
 String email = **editTextUsername**.getText().toString().trim();  
 String password = **editTextPassword**.getText().toString().trim();  
  
  
 Boolean res = **db**.checkUser(email, password);  
 User user = **new** User();  
 Log.*d*(**"IDdetails"**, String.*valueOf*(user.getId()));  
  
  
 **if** (res == **true**) {  
 Intent HomePage = **new** Intent(MainActivity.**this**, HomeActivity.**class**);  
 Bundle b = **new** Bundle(); // Bundle is generally used for passing data between various activities of android.  
 b.putString(**"textViewEmail"**, **editTextUsername**.getText().toString());  
 b.putString(**"textViewPassword"**, **editTextPassword**.getText().toString());  
  
 String y = **db**.selectOneUserSendUserName(email, password);  
 **int** x = **db**.selectOneUserSendId(email,password);  
 Log.*d*(**"TAG"** , **"ID = "** + x);  
  
 b.putString(**"textViewUsername"**,y);  
 b.putString(**"textViewId"**, String.*valueOf*(x));  
  
 HomePage.putExtras(b);  
 startActivity(HomePage);  
 } **else** {  
 Toast.*makeText*(MainActivity.**this**, **"Login Error"**, Toast.***LENGTH\_LONG***).show();  
 }  
 }  
 });  
  
 }  
}

**activity\_main.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@drawable/bg"**>  
  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_above="@id/input\_group"  
 android:layout\_alignParentTop="true"  
 android:layout\_marginLeft="25dp"  
 android:layout\_marginRight="25dp"  
 android:gravity="center"  
 android:orientation="vertical"**>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:fontFamily="sans-serif"  
 android:text="SIGN IN"  
 android:textColor="#FFFFFF"  
 android:textSize="20sp"** />  
  
  
  
 </**LinearLayout**>  
  
  
 <**LinearLayout  
 android:id="@+id/input\_group"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginLeft="25dp"  
 android:layout\_marginRight="25dp"  
 android:layout\_marginBottom="50dp"  
 android:gravity="center"  
 android:orientation="vertical"**>  
  
  
 <**EditText  
 android:id="@+id/editTextUsername"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:background="@drawable/edit\_text\_top"  
 android:hint="Username"  
 android:inputType="textPersonName"  
 android:padding="15dp"** />  
  
 <**EditText  
 android:id="@+id/editTextPassword"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:background="@drawable/edit\_text\_bottom"  
 android:hint="Password"  
 android:inputType="textPassword"  
 android:padding="15dp"** />  
  
  
 <**Button  
 android:id="@+id/buttonLogin"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:background="@drawable/button"  
 android:foreground="?android:attr/selectableItemBackground"  
 android:text="SIGN IN"  
 android:textAllCaps="false"  
 android:textColor="#FE5295"  
 android:textSize="17sp"** />  
  
 <**TextView  
 android:id="@+id/textViewRegister"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="3dp"  
 android:fontFamily="sans-serif"  
 android:padding="10dp"  
 android:text="Don't Have an Account? Sign Up"  
 android:textAllCaps="true"  
 android:textColor="#FE5295"  
 android:textSize="13dp"  
 android:textStyle="bold"** />  
  
  
 </**LinearLayout**>  
  
</**RelativeLayout**>

**RegisterActivity.Java**

**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.util.Log;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
  
**import** Data.DatabaseHelper;  
**import** Model.User;  
  
**public class** RegisterActivity **extends** AppCompatActivity {  
  
 DatabaseHelper **db**;  
 EditText **editTextUsername**, **editTextEmail**, **editTextPassword**, **editTextCnfPassword**;  
 Button **buttonRegister**;  
  
 TextView **textViewLogin**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_register***);  
  
 **db** = **new** DatabaseHelper(**this**);  
 **editTextUsername** = findViewById(R.id.***editTextUsername***);  
 **editTextEmail** = findViewById(R.id.***editTextEmail***);  
 **editTextPassword** = findViewById(R.id.***editTextPassword***);  
 **editTextCnfPassword** = findViewById(R.id.***editTextCnfPassword***);  
 **buttonRegister** = findViewById(R.id.***buttonRegister***);  
  
 **textViewLogin** = findViewById(R.id.***textViewLogin***);  
 **textViewLogin**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 startActivity(**new** Intent(RegisterActivity.**this**, MainActivity.**class**));  
 }  
 });  
  
 **buttonRegister**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 User user = **new** User();  
 String userName = **editTextUsername**.getText().toString().trim();  
 String email = **editTextEmail**.getText().toString().trim();  
 String password = **editTextPassword**.getText().toString().trim();  
 String passwordConf = **editTextCnfPassword**.getText().toString().trim();  
  
 **if** (password.equals(passwordConf)) {  
 user.setUserName(userName);  
 user.setEmail(email);  
  
 user.setPassword(password);  
 **long** val = **db**.addUser(user);  
 **if** (val > 0) {  
 Toast.*makeText*(RegisterActivity.**this**, **"You have registered"**, Toast.***LENGTH\_SHORT***).show();  
 Intent moveToLogin = **new** Intent(RegisterActivity.**this**, MainActivity.**class**);  
  
  
 startActivity(moveToLogin);  
 } **else** Toast.*makeText*(RegisterActivity.**this**, **"Registeration Error"**, Toast.***LENGTH\_SHORT***).show();  
  
 Log.*d*(**"Item Added ID : "**, String.*valueOf*(**db**.getUsersCount()));  
 } **else** {  
 Toast.*makeText*(RegisterActivity.**this**, **"Password is not matching"**, Toast.***LENGTH\_SHORT***).show();  
  
 }  
 }  
 });  
 }  
}

**activity\_register.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@drawable/bg"**>  
  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:layout\_marginLeft="25dp"  
 android:layout\_marginRight="25dp"  
 android:gravity="center"  
 android:layout\_alignParentTop="true"  
 android:layout\_above="@id/input\_group"**>  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:fontFamily="sans-serif"  
 android:text="SIGN UP"  
 android:textColor="#FFFFFF"  
 android:textSize="20sp"**/>  
 </**LinearLayout**>  
  
  
 <**LinearLayout  
 android:id="@+id/input\_group"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:layout\_marginLeft="25dp"  
 android:layout\_marginRight="25dp"  
 android:layout\_marginBottom="50dp"  
 android:layout\_alignParentBottom="true"  
 android:gravity="center"**>  
  
 <**EditText  
 android:id="@+id/editTextUsername"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:background="@drawable/edit\_text\_top"  
 android:hint="Username"  
 android:inputType="textPersonName"  
 android:padding="15dp"** />  
  
 <**EditText  
 android:id="@+id/editTextEmail"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:background="@drawable/edit\_text\_middle"  
 android:hint="Email"  
 android:inputType="textEmailAddress"  
 android:padding="15dp"** />  
  
 <**EditText  
 android:id="@+id/editTextPassword"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:background="@drawable/edit\_text\_middle"  
 android:hint="Password"  
 android:inputType="textPassword"  
 android:padding="15dp"**/>  
 <**EditText  
 android:id="@+id/editTextCnfPassword"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:background="@drawable/edit\_text\_middle"  
 android:hint="Password"  
 android:inputType="textPassword"  
 android:padding="15dp"**/>  
  
  
  
 <**Button  
 android:id="@+id/buttonRegister"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:background="@drawable/button"  
 android:foreground="?android:attr/selectableItemBackground"  
 android:text="SIGN UP"  
 android:textAllCaps="false"  
 android:textColor="#FE5295"  
 android:textSize="17sp"**/>  
  
 <**TextView  
 android:id="@+id/textViewLogin"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="3dp"  
 android:padding="10dp"  
 android:text="Already Have an Account? Sign in"  
 android:textAllCaps="true"  
 android:textSize="13dp"  
 android:textStyle="bold"  
 android:textColor="#FE5295"  
 android:fontFamily="sans-serif"**/>  
  
 </**LinearLayout**>  
</**RelativeLayout**>

**HomeActivity.Java**

**import** android.app.AlertDialog;  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.util.Log;  
**import** android.view.LayoutInflater;  
**import** android.view.MenuItem;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.appcompat.app.ActionBar;  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** com.google.android.material.snackbar.Snackbar;  
  
**import** Data.DatabaseHelper;  
**import** Model.User;  
  
**public class** HomeActivity **extends** AppCompatActivity {  
 TextView **textViewUserName**, **textViewName**, **textViewPassword**, **textViewEmail**, **textViewLogout**;  
  
 Button **btnEditDetails**, **btnChangePassword**;  
  
 **private** AlertDialog.Builder **alertDialogBuilder**;  
 **private** AlertDialog **dialog**;  
 **private** LayoutInflater **inflater**;  
  
 String **textViewUsernameString**;  
 String **textViewNameString**;  
 String **textViewEmailString**;  
 String **textViewPasswordString**;  
 **int textViewID**;  
  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_home***);  
  
 *// calling the action bar* ActionBar actionBar = getSupportActionBar();  
  
  
  
 **textViewUserName** = findViewById(R.id.***textViewUserName***);  
 **textViewName** = findViewById(R.id.***textViewName***);  
 *// textViewPassword = findViewById(R.id.textViewPassword);* **textViewEmail** = findViewById(R.id.***textViewEmail***);  
 **textViewLogout** = findViewById(R.id.***textViewLogout***);  
  
 **final** Bundle b = getIntent().getExtras();  
  
  
 **textViewID** = Integer.*parseInt*(b.getString(**"textViewId"**));  
 **textViewUsernameString** = b.getString(**"textViewUsername"**);  
 **textViewNameString** = b.getString(**"textViewUsername"**);  
 **textViewEmailString** = b.getString(**"textViewEmail"**);  
 *// textViewPasswordString = b.getString("textViewPassword");* Log.*d*(**"Data"**, String.*valueOf*(**textViewID**));  
 Log.*d*(**"Data"**, **"User name: "** + **textViewUsernameString**);  
 Log.*d*(**"Data"**, **"name: "** + **textViewNameString**);  
 Log.*d*(**"Data"**, **"Email: "** + **textViewEmailString**);  
 *// Log.d("Data", "password: " + textViewPasswordString);* **textViewUserName**.setText(**"Hello "** + **textViewUsernameString**);  
 **textViewName**.setText(**textViewNameString**);  
 *// textViewPassword.setText(textViewPasswordString);* **textViewEmail**.setText(**textViewEmailString**);  
  
 **textViewLogout**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 startActivity(**new** Intent(HomeActivity.**this**, MainActivity.**class**));  
 }  
 });  
  
 **btnEditDetails** = findViewById(R.id.***btnEditDetails***);  
 **btnEditDetails**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 editUserDidals();  
 }  
 });  
  
 **btnChangePassword** = findViewById(R.id.***btnChangePassword***);  
 **btnChangePassword**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 changePassword();  
 }  
 });  
 }  
  
 **public void** changePassword() {  
 **alertDialogBuilder** = **new** AlertDialog.Builder(HomeActivity.**this**);  
 **inflater** = LayoutInflater.*from*(HomeActivity.**this**);  
 **final** View view = **inflater**.inflate(R.layout.***popup\_password***, **null**);  
 **final** EditText editTextPasswordPopup = view.findViewById(R.id.***editTextPasswordPopup***);  
 **final** EditText editTextConfPasswordPopup = view.findViewById(R.id.***editTextConfPasswordPopup***);  
  
 **alertDialogBuilder**.setView(view);  
 **dialog** = **alertDialogBuilder**.create();  
 **dialog**.show();  
  
 **final** User user = **new** User();  
 user.setId(**textViewID**);  
 user.setUserName(**textViewNameString**);  
 user.setEmail(**textViewEmailString**);  
 user.setPassword(**textViewPasswordString**);  
  
 editTextPasswordPopup.setText(user.getPassword());  
  
 **final** DatabaseHelper db = **new** DatabaseHelper(HomeActivity.**this**);  
  
 Button saveButtonPassword = view.findViewById(R.id.***saveButtonPassword***);  
  
 saveButtonPassword.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Log.*d*(**"check"**, editTextConfPasswordPopup.getText().toString());  
 Log.*d*(**"check"**, editTextPasswordPopup.getText().toString());  
  
 *// if (Integer.parseInt(editTextPasswordPopup.getText().toString()) == Integer.parseInt(editTextPasswordPopup.getText().toString()) ) {* **if** (!editTextPasswordPopup.getText().toString().isEmpty()  
 && !editTextConfPasswordPopup.getText().toString().isEmpty()) {  
 user.setPassword(editTextConfPasswordPopup.getText().toString());  
 db.updateUser(user);  
 Toast.*makeText*(HomeActivity.**this**, **"Password Updated "**, Toast.***LENGTH\_SHORT***).show();  
 Snackbar.*make*(v, **"Details Saved!"**, Snackbar.***LENGTH\_LONG***).show();  
 startActivity(**new** Intent(HomeActivity.**this**, MainActivity.**class**));  
 } **else**{  
 Snackbar.*make*(view, **"Don't save "**, Snackbar.***LENGTH\_LONG***).show();  
 Toast.*makeText*(HomeActivity.**this**, **"Problem in Updating Password "**, Toast.***LENGTH\_SHORT***).show();  
 }  
 **dialog**.dismiss();  
  
 }  
 });  
 }  
  
  
 **public void** editUserDidals() {  
 **alertDialogBuilder** = **new** AlertDialog.Builder(HomeActivity.**this**);  
 **inflater** = LayoutInflater.*from*(HomeActivity.**this**);  
 **final** View view = **inflater**.inflate(R.layout.***popup***, **null**);  
 **final** EditText editTextUsername = view.findViewById(R.id.***editTextUsername***);  
 **final** EditText editTextEmail = view.findViewById(R.id.***editTextEmail***);  
  
 **alertDialogBuilder**.setView(view);  
 **dialog** = **alertDialogBuilder**.create();  
 **dialog**.show();  
  
 **final** User user = **new** User();  
 user.setId(**textViewID**);  
 user.setUserName(**textViewNameString**);  
 user.setEmail(**textViewEmailString**);  
 *//user.setPassword(textViewPasswordString);* editTextUsername.setText(user.getUserName());  
 editTextEmail.setText(user.getEmail());  
  
 **final** DatabaseHelper db = **new** DatabaseHelper(HomeActivity.**this**);  
  
 Button saveButton = view.findViewById(R.id.***saveButton***);  
  
 saveButton.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 user.setUserName(editTextUsername.getText().toString());  
 user.setEmail(editTextEmail.getText().toString());  
  
 **if** (!editTextUsername.getText().toString().isEmpty()  
 && !editTextEmail.getText().toString().isEmpty()) {  
 db.updateUser(user);  
 Snackbar.*make*(v, **"Details Saved!"**, Snackbar.***LENGTH\_LONG***).show();  
 startActivity(**new** Intent(HomeActivity.**this**, MainActivity.**class**));  
 } **else** {  
 Snackbar.*make*(view, **"Don't save "**, Snackbar.***LENGTH\_LONG***).show();  
 }  
 **dialog**.dismiss();  
  
 }  
 });  
 }  
 **public boolean** onOptionsItemSelected(@NonNull MenuItem item) {  
 **switch** (item.getItemId()) {  
 **case** android.R.id.***home***:  
 Intent i = **new** Intent(getApplicationContext(),MainActivity.**class**);  
 startActivity(i);  
 **return true**;  
 }  
 **return super**.onOptionsItemSelected(item);  
 }  
  
}

**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:gravity="center"  
 tools:context=".HomeActivity"** >  
  
 <**TextView  
 android:id="@+id/textViewUserName"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:text="welcome\_user"  
 android:textColor="#123456"  
 android:textSize="24sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**TextView  
 android:id="@+id/textViewLogout"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Logout"  
 android:textColor="#99C0C5"  
 android:textSize="26sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**TextView  
 android:id="@+id/textView3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="10dp"  
 android:layout\_marginTop="60dp"  
 android:text="Details"  
 android:textColor="#000"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="104dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"**>  
  
  
 <**androidx.cardview.widget.CardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_margin="16dp"**>  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"**>  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"**>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="User Name: "  
 android:textColor="#000"  
 android:textSize="16sp"** />  
  
 <**TextView  
 android:id="@+id/textViewName"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="10dp"  
 android:text="name"  
 android:textSize="23sp"  
 android:textStyle="italic"** />  
  
 </**LinearLayout**>  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="16dp"  
 android:orientation="horizontal"**>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Email: "  
 android:textColor="#000"  
 android:textSize="16sp"** />  
  
 <**TextView  
 android:id="@+id/textViewEmail"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="10dp"  
 android:text="Email"  
 android:textSize="12sp"  
 android:textStyle="italic"** />  
  
 </**LinearLayout**>  
  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="60dp"**>  
  
 <**Button  
 android:id="@+id/btnEditDetails"  
 style="?android:attr/borderlessButtonStyle"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="8dp"  
 android:layout\_marginRight="16dp"  
 android:text="Edit"  
 android:textColor="#00BCD4"** />  
  
 <**Button  
 android:id="@+id/btnChangePassword"  
 style="?android:attr/borderlessButtonStyle"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Change password"  
 android:textColor="#00BCD4"** />  
 </**LinearLayout**>  
  
  
 </**LinearLayout**>  
  
  
 </**androidx.cardview.widget.CardView**>  
  
  
 </**LinearLayout**>  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**DatabaseHelper.Java**

**import** android.content.ContentValues;  
**import** android.content.Context;  
**import** android.database.Cursor;  
**import** android.database.sqlite.SQLiteDatabase;  
**import** android.database.sqlite.SQLiteOpenHelper;  
**import** android.util.Log;  
  
**import** androidx.annotation.Nullable;  
  
  
**import** Model.User;  
**import** Util.Constants;  
  
**public class** DatabaseHelper **extends** SQLiteOpenHelper {  
  
 **private** Context **ctx**;  
  
 **public** DatabaseHelper(@Nullable Context context) {  
 **super**(context, Constants.***DB\_NAME***, **null**, Constants.***DB\_VERSION***);  
 **this**.**ctx** = context;  
 }  
  
  
 @Override  
 **public void** onCreate(SQLiteDatabase db) {  
 String CREATE\_REGISTER\_TABLE = **"CREATE TABLE "** + Constants.***TABLE\_NAME*** + **"("** + Constants.***KEY\_ID*** + **" INTEGER PRIMARY KEY,"** + Constants.***KEY\_USERNAME*** + **" TEXT,"** + Constants.***KEY\_PASSWORD*** + **" TEXT,"** + Constants.***KEY\_EMAIL*** + **" TEXT UNIQUE)"**;  
 Log.*d*(**"TableCreated"**, **"done"**);  
 db.execSQL(CREATE\_REGISTER\_TABLE);  
 }  
  
  
 @Override  
 **public void** onUpgrade(SQLiteDatabase db, **int** oldVersion, **int** newVersion) {  
 db.execSQL(**"DROP TABLE IF EXISTS "** + Constants.***TABLE\_NAME***);  
  
 onCreate(db);  
 }  
  
 */\*  
 \* CRUD OPERATIONS : CREATE --> add user , DELETE , UPDATE METHODS .  
 \*  
 \*/* **public long** addUser(User user) {  
 SQLiteDatabase db = **this**.getWritableDatabase();  
 ContentValues values = **new** ContentValues();  
 values.put(Constants.***KEY\_USERNAME***, user.getUserName());  
 values.put(Constants.***KEY\_PASSWORD***, user.getPassword());  
 values.put(Constants.***KEY\_EMAIL***, user.getEmail());  
  
 *// Error* **long** res = db.insert(Constants.***TABLE\_NAME***, **null**, values);  
 Log.*d*(**"Saved!"**, **"saved to DB"**);  
 db.close();  
 **return** res;  
  
 }  
  
  
  
  
  
  
 **public int** updateUser(User user) {  
 SQLiteDatabase db = **this**.getWritableDatabase();  
 ContentValues values = **new** ContentValues();  
 values.put(Constants.***KEY\_USERNAME***, user.getUserName());  
 values.put(Constants.***KEY\_PASSWORD***, user.getPassword());  
 values.put(Constants.***KEY\_EMAIL***, user.getEmail());  
 **return** db.update(Constants.***TABLE\_NAME***, values, Constants.***KEY\_ID*** + **"=?"**,  
 **new** String[]{String.*valueOf*(user.getId())});  
 }  
  
  
  
 **public int** getUsersCount() {  
 String countQuery = **"SELECT \* FROM "** + Constants.***TABLE\_NAME***;  
 SQLiteDatabase db = **this**.getReadableDatabase();  
 Cursor cursor = db.rawQuery(countQuery, **null**);  
 **return** cursor.getCount();  
 }  
  
  
 **public** Boolean checkUser(String email, String password) {  
 String[] columns = {Constants.***KEY\_ID***};  
 SQLiteDatabase db = getReadableDatabase();  
 String selection = Constants.***KEY\_USERNAME*** + **"=?"** + **" and "** + Constants.***KEY\_PASSWORD*** + **"=?"**;  
 String[] selectionArgs = {email, password};  
 Cursor cursor = db.query(Constants.***TABLE\_NAME***, columns, selection, selectionArgs, **null**, **null**, **null**);  
 **int** count = cursor.getCount();  
 cursor.close();  
 db.close();  
  
 **if** (count > 0)  
 **return true**;  
 **else  
 return false**;  
 }  
  
  
 **public** String selectOneUserSendUserName(String email, String password) {  
 SQLiteDatabase db = getReadableDatabase();  
  
 Cursor c = db.rawQuery(**"SELECT \* FROM "** + Constants.***TABLE\_NAME*** + **" WHERE "** + Constants.***KEY\_USERNAME*** + **" = '"**+email.trim()+**"'"** +**" and "**+ Constants.***KEY\_PASSWORD*** + **" = '"**+password.trim()+**"'"** , **null**);  
 c.moveToFirst();  
  
 **int** x = 0 ;  
 String y = **""**;  
 **while** (c != **null**) {  
 x = Integer.*parseInt*(c.getString(c.getColumnIndex(Constants.***KEY\_ID***)));  
 y = c.getString(c.getColumnIndex(Constants.***KEY\_USERNAME***));  
 Log.*d*(**"tagOneUser"**, Integer.*toString*(x) );  
 Log.*d*(**"tagOneUser"**, y );  
 **break**;  
 }  
 c.moveToNext();  
 **return** y;  
 }  
 **public int** selectOneUserSendId(String email, String password) {  
 SQLiteDatabase db = getReadableDatabase();  
  
 Cursor c = db.rawQuery(**"SELECT \* FROM "** + Constants.***TABLE\_NAME*** + **" WHERE "** + Constants.***KEY\_USERNAME*** + **" = '"**+email.trim()+**"'"** +**" and "**+ Constants.***KEY\_PASSWORD*** + **" = '"**+password.trim()+**"'"** , **null**);  
 c.moveToFirst();  
  
 **int** x = 0 ;  
 String y = **""**;  
 **while** (c != **null**) {  
 x = Integer.*parseInt*(c.getString(c.getColumnIndex(Constants.***KEY\_ID***)));  
 y = c.getString(c.getColumnIndex(Constants.***KEY\_USERNAME***));  
 Log.*d*(**"tagOneUser"**, Integer.*toString*(x) );  
 Log.*d*(**"tagOneUser"**, y );  
 **break**;  
 }  
 c.moveToNext();  
 **return** x;  
 }  
  
  
}

DataModel Class:

**User.Java**

**public class** User {  
 **private int id**;  
 **private** String **userName**;  
 **private** String **password**;  
 **private** String **email** ;  
  
 **public** User(**int** id, String userName, String password, String email) {  
 **this**.**id** = id;  
 **this**.**userName** = userName;  
 **this**.**password** = password;  
 **this**.**email** = email;  
 }  
  
 **public** User() {  
 }  
  
 **public int** getId() {  
 **return id**;  
 }  
  
 **public void** setId(**int** id) {  
 **this**.**id** = id;  
 }  
  
 **public** String getUserName() {  
 **return userName**;  
 }  
  
 **public void** setUserName(String userName) {  
 **this**.**userName** = userName;  
 }  
  
 **public** String getPassword() {  
 **return password**;  
 }  
  
 **public void** setPassword(String password) {  
 **this**.**password** = password;  
 }  
  
 **public** String getEmail() {  
 **return email**;  
 }  
  
 **public void** setEmail(String email) {  
 **this**.**email** = email;  
 }  
  
 @Override  
 **public** String toString() {  
 **return "User{"** +  
 **"id="** + **id** +  
 **", userName='"** + **userName** + **'\''** +  
 **", password='"** + **password** + **'\''** +  
 **", email='"** + **email** + **'\''** +  
 **'}'**;  
 }  
}

**Constants.Java**

**public class** Constants {  
 **public static final int *DB\_VERSION*** = 1;  
 **public static final** String ***DB\_NAME*** = **"register.db"**;  
 **public static final** String ***TABLE\_NAME*** = **"registerUser"**;  
  
  
 *//Table Columns* **public static final** String ***KEY\_ID*** = **"id"**;  
 **public static final** String ***KEY\_USERNAME*** = **"userName"**;  
 **public static final** String ***KEY\_PASSWORD*** = **"password"**;  
 **public static final** String ***KEY\_EMAIL*** = **"email"**;  
}

**popup.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:id="@+id/layout\_id"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"**>  
  
 <**androidx.cardview.widget.CardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"**>  
  
 <**RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:padding="25dp"**>  
  
 <**TextView  
 android:id="@+id/tile"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginBottom="15dp"  
 android:text="Edit Details"  
 android:textSize="18sp"  
 android:textStyle="italic"** />  
  
 <**EditText  
 android:id="@+id/editTextUsername"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/tile"  
 android:hint="UserName"  
 android:textSize="18sp"** />  
  
 <**EditText  
 android:id="@+id/editTextEmail"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/editTextUsername"  
 android:layout\_marginTop="15dp"  
 android:hint="Email"** />  
  
  
 <**Button  
 android:id="@+id/saveButton"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/editTextEmail"  
 android:layout\_marginTop="5dp"  
 android:background="@color/colorAccent"  
 android:text="Save"  
 android:textColor="#fff"  
 android:textStyle="bold"** />  
  
 </**RelativeLayout**>  
 </**androidx.cardview.widget.CardView**>  
</**LinearLayout**>

**Popup\_password.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:id="@+id/layout\_id"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"**>  
  
 <**androidx.cardview.widget.CardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"**>  
  
 <**RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:padding="25dp"**>  
  
 <**TextView  
 android:id="@+id/tile"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginBottom="15dp"  
 android:text="Change password"  
 android:textSize="18sp"  
 android:textStyle="italic"** />  
  
 <**EditText  
 android:id="@+id/editTextPasswordPopup"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/tile"  
 android:hint="Password"  
 android:inputType="textPassword"  
 android:textSize="18sp"** />  
  
 <**EditText  
 android:id="@+id/editTextConfPasswordPopup"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/editTextPasswordPopup"  
 android:layout\_marginTop="15dp"  
 android:inputType="textPassword"  
 android:hint="Conf Password"** />  
  
  
 <**Button  
 android:id="@+id/saveButtonPassword"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@+id/editTextConfPasswordPopup"  
 android:layout\_marginTop="5dp"  
 android:background="@color/colorAccent"  
 android:text="Save"  
 android:textColor="#fff"  
 android:textStyle="bold"** />  
  
 </**RelativeLayout**>  
 </**androidx.cardview.widget.CardView**>  
</**LinearLayout**>

**Colors.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**resources**>  
 <**color name="colorPrimary"**>#5CA8C7</**color**>  
 <**color name="colorPrimaryDark"**>#9FC9DB</**color**>  
 <**color name="colorAccent"**>#75A9B4</**color**>  
</**resources**>

**Styles.xml**

<**resources**>  
  
 *<!-- Base application theme. -->* <**style name="AppTheme" parent="Theme.AppCompat.Light.DarkActionBar"**>  
 *<!-- Customize your theme here. -->* <**item name="colorPrimary"**>@color/colorPrimary</**item**>  
 <**item name="colorPrimaryDark"**>@color/colorPrimaryDark</**item**>  
 <**item name="colorAccent"**>@color/colorAccent</**item**>  
 </**style**>  
  
</**resources**>

**Drawable/BG.XML**

*<?***xml version="1.0" encoding="utf-8"***?>*<**selector xmlns:android="http://schemas.android.com/apk/res/android"**>  
 <**item**>  
 <**shape**>  
 <**gradient  
 android:angle="90"  
 android:startColor="#96C6D5"  
 android:endColor="#99B6B9"  
 android:type="linear"** />  
 </**shape**>  
 </**item**>  
</**selector**>

**Drawable/Button.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**layer-list xmlns:android="http://schemas.android.com/apk/res/android"**>  
 <**item**>  
 <**shape**>  
 <**corners android:radius="5dp"**/>  
 <**solid android:color="#F2F2F2"** />  
 <**stroke android:width="0.5dp" android:color="#BEBDBD"** />  
 </**shape**>  
 </**item**>  
</**layer-list**>

**Drawable/Edit\_text\_button.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**layer-list xmlns:android="http://schemas.android.com/apk/res/android"**>  
 <**item**>  
 <**shape**>  
 <**corners android:bottomLeftRadius="5dp"  
 android:bottomRightRadius="5dp"**/>  
 <**solid android:color="#F2F2F2"** />  
 <**stroke android:width="0.2dp" android:color="#BEBDBD"** />  
 </**shape**>  
 </**item**>  
</**layer-list**>

**Drawable /Edit\_text\_middle.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**layer-list xmlns:android="http://schemas.android.com/apk/res/android"**>  
 <**item**>  
 <**shape**>  
 <**corners android:radius="0dp"**/>  
 <**solid android:color="#F2F2F2"** />  
 <**stroke android:width="0.2dp" android:color="#BEBDBD"** />  
 </**shape**>  
 </**item**>  
</**layer-list**>

**Drawable/Edit\_text\_top.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**layer-list xmlns:android="http://schemas.android.com/apk/res/android"**>  
<**item**>  
 <**shape**>  
 <**corners android:topLeftRadius="5dp"  
 android:topRightRadius="5dp"**/>  
 <**solid android:color="#F2F2F2"** />  
 <**stroke android:width="0.2dp" android:color="#BEBDBD"** />  
 </**shape**>  
</**item**>  
</**layer-list**>