

# **Experiment Name: CourseRegistration Application using SQLite**

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### **Aim:**

To create a mobile application that has a Login functionality, Activity for Registering Subjects and Displaying other Students who registered same subjects. Menu Bar with options to Logout, Change Password and Exit app.

### **Description of App:**

The application starts in the login page. The user enter the roll number as username and name as password clicks Submit to Login. Error messages for invalid credentials displayed using Toast.

Next, Checkbox List of available Subjects for registration is displayed. User can select necessary subjects and click SELECT button to store data to database and redirect to View Registered Subjects activity.

In this activity, Registered subjects of user are visible. There is also a feature to see other students who registered the same subjects as given user.

Menu bar functionalities:

Change Password: To change current password by giving old and new password

Logout: Logout and go back to Login page

Exit: Exit application and go to android homescreen.

### **Device Specifications:**

App runs on the minSDK version of 16 and Android version 11 using Pixel 3A API emulator and samsung device. Only default libraries were used.

### **Technical Concepts Learnt:**

- Concept of Menus
- Event Listeners
- SQLite Databases: Insertion, Updation and Select querying based on parameters
- Toasts
- Intents
- Bundles

### **SOURCE CODE:**

#### **StudentsDB.java:**

```
package com.example.courseregistration;
```

```
import android.content.ContentValues;
```

```

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

import androidx.annotation.Nullable;

public class StudentsDB extends SQLiteOpenHelper {

    public static final String DATABASE_NAME="Student.db";
    public static final String TABLE_NAME="Student_Table";
    public static final String COL_1="_id";
    public static final String COL_2="USERNAME";
    public static final String COL_3="PASSWORD";
    public static final String COL_4="CRYPTOGRAPHY";
    public static final String COL_5="APPDEV";
    public static final String COL_6="MICROPROCESSOR";
    public static final String COL_7="DATA_SCIENCE";
    public static final String COL_8="ALGORITHMS";

    public StudentsDB(@Nullable Context context) {
        super(context, DATABASE_NAME, null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("create table " + TABLE_NAME + " (ID INTEGER PRIMARY KEY
AUTOINCREMENT, USERNAME TEXT, PASSWORD TEXT," +
        " CRYPTOGRAPHY TEXT, APPDEV TEXT, MICROPROCESSOR TEXT,
DATA_SCIENCE TEXT, ALGORITHMS TEXT)");
        insertData(db);
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
        db.execSQL("DROP TABLE IF EXISTS "+TABLE_NAME);
        onCreate(db);
    }

    public void insertData(SQLiteDatabase db)
    {
        String[] roll_no = {"106118001", "106118002", "106118003", "106118004",
"106118005",
                                "106118006", "106118007", "106118008", "106118009",
"106118010"};
        String[] name = {"Adam","Brian", "Charlie", "David", "Edward",
                        "Frederick", "Galvin", "Harry", "Ian", "Josh"};

        db.beginTransaction();
        try{

```

```

        ContentValues contentValues=new ContentValues();
        for(int i=0;i<10;i++)
        {
            contentValues.put(COL_2, roll_no[i]);
            contentValues.put(COL_3, name[i]);
            contentValues.put(COL_4, "false");
            contentValues.put(COL_5, "false");
            contentValues.put(COL_6, "false");
            contentValues.put(COL_7, "false");
            contentValues.put(COL_8, "false");

            db.insert(TABLE_NAME,null, contentValues);
        }
        db.setTransactionSuccessful();
    }
    finally {
        db.endTransaction();
    }
}

public boolean checkData(String username, String password)
{
    SQLiteDatabase db=this.getWritableDatabase();
    Cursor res = db.rawQuery("SELECT * from " + TABLE_NAME + " WHERE USERNAME
= ? AND PASSWORD = ?",
                                new String[]{username, password});
    if(res.getCount()==1)
        return true;
    else
        return false;
}

public void updateData(String username, String[] selected)
{
    SQLiteDatabase db=this.getWritableDatabase();
    ContentValues contentValues=new ContentValues();
    contentValues.put(COL_4, selected[0]);
    contentValues.put(COL_5, selected[1]);
    contentValues.put(COL_6, selected[2]);
    contentValues.put(COL_7, selected[3]);
    contentValues.put(COL_8, selected[4]);
    db.update(TABLE_NAME,contentValues,"USERNAME=?",new String[] {username});
}

public Cursor getData(String username)
{
    SQLiteDatabase db=this.getWritableDatabase();
    Cursor res = db.rawQuery("SELECT * from "+ TABLE_NAME+ " WHERE USERNAME
= ?", new String[]{username});
    return res;
}

```

```

public Cursor getStudentData(String[] selected)
{
    SQLiteDatabase db=this.getWritableDatabase();

    Cursor res = db.rawQuery("SELECT * from " + TABLE_NAME +
        " WHERE CRYPTOGRAPHY = ? AND APPDEV = ? AND
MICROPROCESSOR = ? AND DATA_SCIENCE = ? AND ALGORITHMS = ?",
        new String[]{selected[0], selected[1], selected[2], selected[3],
selected[4]});

    return res;
}

public boolean changePassword(String username, String old_password, String
new_password)
{
    SQLiteDatabase db=this.getWritableDatabase();

    Cursor res = db.rawQuery("SELECT * from " + TABLE_NAME + " WHERE USERNAME
= ? AND PASSWORD = ?",
        new String[]{username, old_password});
    if(res.getCount()==1)
    {
        ContentValues contentValues=new ContentValues();
        contentValues.put(COL_3, new_password);
        db.update(TABLE_NAME,contentValues,"USERNAME=?",new String[]
{username});
        return true;
    }
    else
        return false;
}
}

```

### MainActivity.java:

```

package com.example.courseregistration;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;

```

```

import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    EditText etUsername, etPassword;
    Button btnSubmit;
    StudentsDB sdb;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        sdb = new StudentsDB(this);

        etUsername = (EditText) findViewById(R.id.etUsername);
        etPassword = (EditText) findViewById(R.id.etPassword);
        btnSubmit = (Button) findViewById(R.id.btnSubmit);

        btnSubmit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String username = etUsername.getText().toString();
                String password = etPassword.getText().toString();

                boolean isPresent = sdb.checkData(username, password);
                if(isPresent==false)
                {
                    Toast.makeText(MainActivity.this, "Invalid credentials",
Toast.LENGTH_SHORT).show();
                }
                else
                {
                    Intent intent = new Intent(getApplicationContext(),
Subjects.class);
                    intent.putExtra("username", username);
                    startActivity(intent);
                }
            }
        });
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        MenuInflater inflater = getMenuInflater();
        inflater.inflate(R.menu.main_menu, menu);
        return true;
    }

    @Override

```

```

    public boolean onOptionsItemSelected(MenuItem item) {
        int id = item.getItemId();
        switch (id) {
            case R.id.mLogout:
            {
                Intent intent = new
Intent(getApplicationContext(),MainActivity.class);
                startActivity(intent);
                return true;
            }

            case R.id.mChange:
            {
                Intent intent = new
Intent(getApplicationContext(),ChangePassword.class);
                startActivity(intent);
                return true;
            }
            case R.id.mExit:
            {
                moveTaskToBack(true);
                return true;
            }
            default:
                return super.onOptionsItemSelected(item);
        }
    }
}

```

### Subjects.java:

```

package com.example.courseregistration;

import androidx.appcompat.app.AppCompatActivity;

import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.Toast;

public class Subjects extends AppCompatActivity {

    CheckBox checkBox1, checkBox2, checkBox3, checkBox4, checkBox5;
    Button btnSelect;

```

```

StudentsDB sdb;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_subjects);

    sdb = new StudentsDB(this);

    checkBox1 = (CheckBox) findViewById(R.id.checkBox1);
    checkBox2 = (CheckBox) findViewById(R.id.checkBox2);
    checkBox3 = (CheckBox) findViewById(R.id.checkBox3);
    checkBox4 = (CheckBox) findViewById(R.id.checkBox4);
    checkBox5 = (CheckBox) findViewById(R.id.checkBox5);

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

    Bundle myBundle = getIntent().getExtras();
    String username = myBundle.getString("username");

    String[] selected = {"false", "false", "false", "false", "false"};

    btnSelect.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            if(checkBox1.isChecked())
                selected[0] = "true";
            if(checkBox2.isChecked())
                selected[1] = "true";
            if(checkBox3.isChecked())
                selected[2] = "true";
            if(checkBox4.isChecked())
                selected[3] = "true";
            if(checkBox5.isChecked())
                selected[4] = "true";

            sdb.updateData(username, selected);

            Toast.makeText(Subjects.this, "Registration successful",
Toast.LENGTH_SHORT).show();

            Intent intent = new Intent(getApplicationContext(),
Selected_Subjects.class);
            intent.putExtra("username", username);
            // intent.putExtra("selected", selected);
            startActivity(intent);

        }
    });
}

@Override

```

```

    public boolean onCreateOptionsMenu(Menu menu) {
        MenuInflater inflater = getMenuInflater();
        inflater.inflate(R.menu.main_menu, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        int id = item.getItemId();
        switch (id) {
            case R.id.mLogout:
            {
                Intent intent = new
Intent(getApplicationContext(),MainActivity.class);
                startActivity(intent);
                return true;
            }

            case R.id.mChange:
            {
                Intent intent = new
Intent(getApplicationContext(),ChangePassword.class);
                startActivity(intent);
                return true;
            }
            case R.id.mExit:
            {
                moveTaskToBack(true);
                return true;
            }
            default:
                return super.onOptionsItemSelected(item);
        }
    }
}

```

### **SelectedSubjects.java:**

```

package com.example.courseregistration;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;

```



```

import android.widget.TextView;

public class Selected_Subjects extends AppCompatActivity {

    TextView tvSubjects, tvStudents;
    Button btnSimilar;
    StudentsDB sdb;

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

        tvStudents = (TextView) findViewById(R.id.tvStudents);
        tvSubjects = (TextView) findViewById(R.id.tvSubjects);

        btnSimilar = (Button) findViewById(R.id.btnSimilar);
        sdb = new StudentsDB(this);

        Bundle myBundle = getIntent().getExtras();
        String username = myBundle.getString("username");

        Cursor cursor= sdb.getData(username);

        String ans = "SELECTED SUBJECTS OF " + username + ":\n\n";
        String[] selected = {"false", "false", "false", "false", "false"};
        for(cursor.moveToFirst();!cursor.isAfterLast();cursor.moveToNext())
        {
            //      ans = ans + cursor.getString(3);
            if(cursor.getString(3).trim().equals("true"))
            {
                ans = ans + "Cryptography\n";
                selected[0]="true";
            }
            if(cursor.getString(4).trim().equals("true"))
            {
                ans = ans + "Application Development\n";
                selected[1]="true";
            }
            if(cursor.getString(5).trim().equals("true"))
            {
                ans = ans + "MicroProcessor\n";
                selected[2]="true";
            }
            if(cursor.getString(6).trim().equals("true"))
            {
                ans = ans + "Data Science\n";
                selected[3]="true";
            }
            if(cursor.getString(7).trim().equals("true"))
            {

```

```

        ans = ans + "Algorithms\n";
        selected[4]="true";
    }
}

tvSubjects.setText(ans);

btnSimilar.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {

        Cursor cursor= sdb.getStudentData(selected);

        String temp="";

        for(cursor.moveToFirst();!cursor.isAfterLast();cursor.moveToNext())
        {
            temp = temp + cursor.getString(1).trim() + "\n";

        }
        tvStudents.setText(temp);

    }
});

}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    MenuInflater inflater = getMenuInflater();
    inflater.inflate(R.menu.main_menu, menu);
    return true;
}

@Override
public boolean onOptionsItemSelected(MenuItem item) {
    int id = item.getItemId();
    switch (id) {
        case R.id.mLogout:
        {
            Intent intent = new
Intent(getApplicationContext(),MainActivity.class);
            startActivity(intent);
            return true;
        }

        case R.id.mChange:
        {
            Intent intent = new
Intent(getApplicationContext(),ChangePassword.class);
            startActivity(intent);
        }
    }
}

```

```

        return true;
    }
    case R.id.mExit:
    {
        moveTaskToBack(true);
        return true;
    }
    default:
        return super.onOptionsItemSelected(item);
    }
}
}

```

### ChangePassword.java:

```

package com.example.courseregistration;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class ChangePassword extends AppCompatActivity {

    EditText etUsername1, etOldPassword, etNewPassword;
    Button btnChange;
    StudentsDB sdb;

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

        etUsername1 = (EditText) findViewById(R.id.etUsername1);
        etOldPassword = (EditText) findViewById(R.id.etOldPassword);
        etNewPassword = (EditText) findViewById(R.id.etNewPassword);

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

        sdb = new StudentsDB(this);

        btnChange.setOnClickListener(new View.OnClickListener() {
            @Override

```

```

        public void onClick(View v) {
            String username = etUsername1.getText().toString();
            String old_password = etOldPassword.getText().toString();
            String new_password = etNewPassword.getText().toString();
            boolean isChanged = sdb.changePassword(username, old_password,
new_password);

            if(isChanged==true)
            {
                Toast.makeText(ChangePassword.this, "Password Change Success",
Toast.LENGTH_SHORT).show();
            }
            else
            {
                Toast.makeText(ChangePassword.this, "Password Change FAIL",
Toast.LENGTH_SHORT).show();
            }

            etUsername1.setText("");
            etOldPassword.setText("");
            etNewPassword.setText("");
        }
    });
}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    MenuInflater inflater = getMenuInflater();
    inflater.inflate(R.menu.main_menu, menu);
    return true;
}

@Override
public boolean onOptionsItemSelected(MenuItem item) {
    int id = item.getItemId();
    switch (id) {
        case R.id.mLogout:
        {
            Intent intent = new
Intent(getApplicationContext(),MainActivity.class);
            startActivity(intent);
            return true;
        }

        case R.id.mChange:
        {
            Intent intent = new
Intent(getApplicationContext(),ChangePassword.class);
            startActivity(intent);

```

```

        return true;
    }
    case R.id.mExit:
    {
        moveTaskToBack(true);
        return true;
    }
    default:
        return super.onOptionsItemSelected(item);
    }
}
}

```

### 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"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/tvHeading"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="100dp"
        android:gravity="center_horizontal"
        android:text="LOGIN PAGE:"
        android:textColor="#000000"
        android:textStyle="bold" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginStart="20dp"
        android:layout_marginLeft="20dp"
        android:layout_marginEnd="20dp"
        android:layout_marginRight="20dp"
        android:orientation="horizontal">

        <TextView
            android:id="@+id/tvUsername"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="Username:" />
    
```

```
<EditText
    android:id="@+id/etUsername"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="3"
    android:ems="10"
    android:inputType="textPersonName" />
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginStart="20dp"
    android:layout_marginLeft="20dp"
    android:layout_marginEnd="20dp"
    android:layout_marginRight="20dp"
    android:orientation="horizontal">

    <TextView
        android:id="@+id/tvPassword"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="Password:" />

    <EditText
        android:id="@+id/etPassword"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="3"
        android:ems="10"
        android:inputType="textPassword" />
</LinearLayout>
```

```
<Button
    android:id="@+id/btnSubmit"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginStart="50dp"
    android:layout_marginLeft="50dp"
    android:layout_marginEnd="50dp"
    android:layout_marginRight="50dp"
    android:text="Submit"
    app:backgroundTint="#BA0707" />
```

```
</LinearLayout>
```

## Activity\_subjects.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"
    tools:context=".Subjects">

    <TextView
        android:id="@+id/tvSelect"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="100dp"
        android:gravity="center_horizontal"
        android:text="Select Subjects:"
        android:textColor="#0624CC"
        android:textSize="30sp"
        android:textStyle="bold" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="30dp"
        android:orientation="vertical">

        <CheckBox
            android:id="@+id/checkBox1"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Cryptography"
            android:textColor="#000000" />

        <CheckBox
            android:id="@+id/checkBox2"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textColor="#000000"
            android:text="Application Development" />

        <CheckBox
            android:id="@+id/checkBox3"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textColor="#000000"
            android:text="Microprocessor" />

        <CheckBox
            android:id="@+id/checkBox4"
```

```
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textColor="#000000"
        android:text="Data Sciences" />
```

```
    <CheckBox
        android:id="@+id/checkBox5"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textColor="#000000"
        android:text="Algorithms" />
```

```
</LinearLayout>
```

```
    <Button
        android:id="@+id/btnSelect"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginStart="50dp"
        android:layout_marginLeft="50dp"
        android:layout_marginEnd="50dp"
        android:layout_marginRight="50dp"
        android:text="SELECT"
        android:textColor="#000000"
        app:backgroundTint="#2196F3" />
```

```
</LinearLayout>
```

### Activty\_selected\_subjects.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"
    tools:context=".Selected_Subjects">

    <TextView
        android:id="@+id/tvHeading2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center_horizontal"
        android:text="Selected Subjects:"
        android:textColor="#5808E8"
        android:textSize="30sp"
        android:textStyle="bold" />
```

```
    <TextView
```



```
android:id="@+id/tvSubjects"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginStart="30dp"
android:layout_marginLeft="30dp"
android:layout_marginTop="30dp"
android:layout_marginEnd="30dp"
android:layout_marginRight="30dp"
android:textColor="#122FCC"
android:textSize="20sp" />
```

<Button

```
android:id="@+id/btnSimilar"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginStart="40dp"
android:layout_marginLeft="40dp"
android:layout_marginTop="50dp"
android:layout_marginEnd="40dp"
android:layout_marginRight="40dp"
android:text="Similar Students"
app:backgroundTint="#FF9800" />
```

<LinearLayout

```
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_margin="30dp"
android:orientation="vertical">
```

<TextView

```
android:id="@+id/tvDesc"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_weight="1"
android:text="Students with Same Subjects:"
android:textColor="#EA4C1A"
android:textSize="25sp"
android:textStyle="bold" />
```

<TextView

```
android:id="@+id/tvStudents"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_weight="4"
android:textColor="#E91E63"
android:textSize="20sp"
android:textStyle="bold|italic" />
```

</LinearLayout>

</LinearLayout>

## Activty\_change\_password.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"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/tvHeading"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="100dp"
        android:gravity="center_horizontal"
        android:text="CHANGE PASSWORD:"
        android:textColor="#000000"
        android:textStyle="bold" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginStart="20dp"
        android:layout_marginLeft="20dp"
        android:layout_marginEnd="20dp"
        android:layout_marginRight="20dp"
        android:orientation="horizontal">

        <TextView
            android:id="@+id/tvUsername1"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="Username:" />

        <EditText
            android:id="@+id/etUsername1"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="3"
            android:ems="10"
            android:inputType="textPersonName" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
```

```

        android:layout_marginStart="20dp"
        android:layout_marginLeft="20dp"
        android:layout_marginEnd="20dp"
        android:layout_marginRight="20dp"
        android:orientation="horizontal">

        <TextView
            android:id="@+id/tvOldPassword"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="Old Password:" />

        <EditText
            android:id="@+id/etOldPassword"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="3"
            android:ems="10"
            android:inputType="textPassword" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginStart="20dp"
        android:layout_marginLeft="20dp"
        android:layout_marginEnd="20dp"
        android:layout_marginRight="20dp"
        android:orientation="horizontal">

        <TextView
            android:id="@+id/tvNewPassword"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="New Password:" />

        <EditText
            android:id="@+id/etNewPassword"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="3"
            android:ems="10"
            android:inputType="textPassword" />
    </LinearLayout>

    <Button
        android:id="@+id/btnChange"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"

```

```
android:layout_marginStart="50dp"  
android:layout_marginLeft="50dp"  
android:layout_marginEnd="50dp"  
android:layout_marginRight="50dp"  
android:text="Change"  
app:backgroundTint="#20AE26" />
```

```
</LinearLayout>
```

## **SCREENSHOTS:**

12:39

VoLTE R 56%

# CourseRegistration







## LOGIN PAGE:

Username:

Password:

**SUBMIT**

1:16

   Vo) R LTE1  55%

# CourseRegistration



## LOGIN PAGE:

Username:

Password:

**SUBMIT**

## Select Subjects:

- ☐ Cryptography
- ☐ Application Development
- ☐ Microprocessor
- ☐ Data Sciences
- ☐ Algorithms

SELECT

## Select Subjects:

- ☒ Cryptography
- ☒ Application Development
- ☒ Microprocessor
- ☒ Data Sciences
- ☒ Algorithms

SELECT



## Selected Subjects:

SELECTED SUBJECTS OF  
106118001:

Cryptography  
Application Development  
MicroProcessor  
Data Science  
Algorithms

SIMILAR STUDENTS

**Students with Same  
Subjects:**

Registration successful

## CourseRegistration



## Selected Subjects:

SELECTED SUBJECTS OF  
106118001:

Cryptography  
Application Development  
MicroProcessor  
Data Science  
Algorithms

SIMILAR STUDENTS

## Students with Same Subjects:

106118001

106118002

106118004

12:40

VoLTE R 56%

CourseRegistration

Logout

Change Password

Exit App

Selected Subjects

SELECTED SUBJECTS  
106118001:

Cryptography  
Application Development  
MicroProcessor  
Data Science  
Algorithms



SIMILAR STUDENTS





Students with Same  
Subjects:

106118001

106118002

106118004

12:40  

   Vo) R LTE1  56% 

# CourseRegistration



## CHANGE PASSWORD:

Username:

Old

Password:

New

Password:

CHANGE

12:40

VoLTE R 56%

# CourseRegistration





## CHANGE PASSWORD:






Username: 106118001

Old Password: ....

New Password: .....|

CHANGE

12:40  

   VoLTE R  56% 

# CourseRegistration



## CHANGE PASSWORD:

Username:

Old  
Password:

New  
Password:

CHANGE

Password Change Success

**OUTCOME:**

App was coded and run successfully without any errors and bugs.