

PROBLEM STATEMENT :

The College Management System project aims to address the complexities and challenges associated with managing various aspects of a college's administrative and academic functions. The system is designed to streamline and automate processes related to student information, course management, faculty coordination, and overall administration. The current manual methods of handling tasks such as enrollment, attendance tracking, examination management, and result processing often lead to inefficiencies, errors, and time-consuming procedures. The Android Studio platform will be utilized to develop a user-friendly mobile application, providing a convenient interface for administrators, faculty, and students to access and update relevant information. The proposed system will enhance communication, data accuracy, and overall operational efficiency, contributing to a more effective and organized college management structure. Key features will include student enrollment, attendance tracking, grade management, faculty information, and administrative functionalities, all integrated into a cohesive mobile application to cater to the diverse needs of the college community.

SOURCECODE [XMLCODES]

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="#0025F3"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/button"
        android:layout_width="177dp"
        android:layout_height="94dp"
```

```
android:layout_alignParentEnd="true"
android:layout_alignParentRight="true"
android:layout_alignParentBottom="true"
android:layout_marginEnd="118dp"
android:layout_marginRight="118dp"
android:layout_marginBottom="87dp"
android:background="@drawable/s"
android:text="WELCOME"
android:textColor="#0E0E0E"
android:textColorHint="#050505"
```

android:textColorLink="#E41717"

android:textSize="24sp"

android:textStyle="bold" />

<ImageView

android:id="@+id/imageView2"

android:layout_width="341dp"

android:layout_height="370dp"

android:layout_alignParentEnd="true"

android:layout_alignParentRight="true"

android:layout_alignParentBottom="true"

android:layout_marginEnd="37dp"

android:layout_marginRight="37dp"

android:layout_marginBottom="196dp"

app:srcCompat="@drawable/krct" />

<TextView

android:id="@+id/textView"

android:layout_width="345dp"

android:layout_height="78dp"

android:layout_alignParentEnd="true"

android:layout_alignParentRight="true"

android:layout_alignParentBottom="true"

android:layout_marginEnd="34dp"

android:layout_marginRight="34dp"

android:layout_marginBottom="581dp"

android:text="K RAMAKRISHNAN COLLEGE OF TECHNOLOGY"

```
android:textColor="#000000"
android:textColorHint="#151515"
android:textColorLink="#E41717"
android:textSize="24sp" />
```

```
</RelativeLayout>
```

ACTIVITY_MAIN2.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="@drawable/back"
    tools:context=".MainActivity2">
```

```
<Button
```

```
    android:id="@+id/button2"
    android:layout_width="173dp"
    android:layout_height="69dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="109dp"
    android:layout_marginRight="109dp"
    android:layout_marginBottom="228dp"
    android:background="#E12B1D"
    android:text="LOGIN"
```

```
android:textSize="34sp" />
```

```
<TextView
```

```
    android:id="@+id/textView2"  
    android:layout_width="match_parent"  
    android:layout_height="62dp"  
    android:layout_alignParentBottom="true"  
    android:layout_marginBottom="669dp"  
    android:gravity="center"  
    android:text="  SIGN IN "  
    android:textColor="#0B0A0A"  
    android:textSize="34sp" />
```

```
<EditText
```

```
    android:id="@+id/username"  
    android:layout_width="362dp"  
    android:layout_height="68dp"  
    android:layout_alignParentEnd="true"  
    android:layout_alignParentRight="true"  
    android:layout_alignParentBottom="true"  
    android:layout_marginTop="155dp"  
    android:layout_marginEnd="36dp"  
    android:layout_marginRight="36dp"  
    android:layout_marginBottom="508dp"  
    android:background="#EF9A9A"  
    android:drawableLeft="@drawable/baseline_man_24"  
    android:drawablePadding="30dp"
```

```
android:hint="USERNAME"
android:padding="20dp"
android:textColor="@color/black"
android:textColorHint="@color/black"
android:textSize="16sp" />
```

<EditText

```
android:id="@+id/editTextTextPassword"
android:layout_width="369dp"
android:layout_height="wrap_content"
android:layout_alignParentEnd="true"
android:layout_alignParentRight="true"
android:layout_alignParentBottom="true"
android:layout_marginTop="155dp"
android:layout_marginEnd="25dp"
android:layout_marginRight="25dp"
android:layout_marginBottom="394dp"
android:background="#EF9A9A"
android:drawableLeft="@drawable/baseline_password_24"
android:drawablePadding="30dp"
android:ems="10"
android:hint="PASSWORD"
android:inputType="textPassword"
android:padding="20dp"
android:textColor="@color/black"
android:textColorHint="@color/black"
android:textSize="16sp" />
```

</RelativeLayout>

ACTIVITY_MAIN3.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="@drawable/three"
    tools:context=".MainActivity3" >
```

```
<Button
```

```
    android:id="@+id/button3"
    android:layout_width="271dp"
    android:layout_height="134dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="76dp"
    android:layout_marginRight="76dp"
    android:layout_marginBottom="316dp"
    android:background="@drawable/line"
    android:text="PLACEMENT"
    android:textColor="#000000"
    android:textSize="34sp" />
```

<Button

```
    android:id="@+id/button4"
    android:layout_width="271dp"
    android:layout_height="134dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="79dp"
    android:layout_marginRight="79dp"
    android:layout_marginBottom="517dp"
    android:background="@drawable/line"
    android:text="DEPARTMENT"
    android:textColor="#000000"
    android:textSize="34sp" />
```

<Button

```
    android:id="@+id/button5"
    android:layout_width="271dp"
    android:layout_height="134dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="76dp"
    android:layout_marginRight="76dp"
    android:layout_marginBottom="86dp"
    android:background="@drawable/line"
```



```

        android:text="LIBRARY"
        android:textColor="#000000"
        android:textSize="34sp" />
</RelativeLayout>

ACTIVITY_MAIN4.XML:
<!-- res/layout/activity_department_details.xml -->
<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:paddingLeft="16dp"
    android:paddingTop="16dp"
    android:paddingRight="16dp"
    android:paddingBottom="16dp"
    tools:context=".MainActivity4">

    <RadioGroup
        android:id="@+id/departmentRadioGroup"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:layout_centerHorizontal="true"
        android:layout_marginBottom="16dp">

        <RadioButton
            android:id="@+id/radioCSE"
            android:layout_width="wrap_content"

```

```
android:layout_height="wrap_content"  
android:text="CSE" />
```

```
<RadioButton  
    android:id="@+id/radioEEE"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="EEE" />
```

```
<RadioButton  
    android:id="@+id/radioMechanical"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="Mechanical" />
```

```
<RadioButton  
    android:id="@+id/radioECE"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="ECE" />
```

```
</RadioGroup>
```

```
<Button  
    android:id="@+id/showAbstractButton"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="Show Abstract"
```

```
android:layout_below="@id/departmentRadioGroup"
android:layout_centerHorizontal="true"
android:layout_marginTop="16dp"
android:onClick="onShowAbstractButtonClick" />
```

```
<TextView
```

```
    android:id="@+id/departmentAbstract"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/showAbstractButton"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="16dp"/>
```

```
</RelativeLayout>
```

ACTIVITY_MAIN5.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=".MainActivity5">
```

```
<TableLayout
```

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:stretchColumns="*>
```

```
<!-- Table Header -->
```

```
<TableRow
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content">
```

```
    <TextView
```

```
        android:layout_width="0dp"
```

```
        android:layout_weight="1"
```

```
        android:gravity="center"
```

```
        android:padding="8dp"
```

```
        android:text="CSE" />
```

```
    <TextView
```

```
        android:layout_width="0dp"
```

```
        android:layout_weight="1"
```

```
        android:gravity="center"
```

```
        android:padding="8dp"
```

```
        android:text="EEE" />
```

```
    <TextView
```

```
        android:layout_width="0dp"
```

```
        android:layout_weight="1"
```

```
        android:gravity="center"
```

```
        android:padding="8dp"
```

```
        android:text="Civil" />
```

```

<TextView
    android:layout_width="0dp"
    android:layout_weight="1"
    android:gravity="center"
    android:padding="8dp"
    android:text="MECH" />
</TableRow>

<!-- Data Rows -->
<TableRow
    android:layout_width="match_parent"
    android:layout_height="wrap_content">

    <TextView
        android:layout_width="0dp"
        android:layout_weight="1"
        android:gravity="center"
        android:padding="8dp"
        android:text="MICROSOFT" />

    <TextView
        android:layout_width="0dp"
        android:layout_weight="1"
        android:gravity="center"
        android:padding="8dp"
        android:text="SIEMENS" />

```

```
<TextView
    android:layout_width="0dp"
    android:layout_weight="1"
    android:gravity="center"
    android:padding="8dp"
    android:text="TURNER" />
```

```
<TextView
    android:layout_width="0dp"
    android:layout_weight="1"
    android:gravity="center"
    android:padding="8dp"
    android:text="BOSCH" />
```

```
</TableRow>
```

```
<TableRow
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
```

```
<TextView
    android:layout_width="0dp"
    android:layout_weight="1"
    android:gravity="center"
    android:padding="8dp"
    android:text="GOOGLE" />
```

```
<TextView
```

```
    android:layout_width="0dp"
    android:layout_weight="1"
    android:gravity="center"
    android:padding="8dp"
    android:text="TOSHIBA" />
```

```
<TextView
    android:layout_width="0dp"
    android:layout_weight="1"
    android:gravity="center"
    android:padding="8dp"
    android:text="SKANSKA" />
```

```
<TextView
    android:layout_width="0dp"
    android:layout_weight="1"
    android:gravity="center"
    android:padding="8dp"
    android:text="CATERPILLAR" />
```

```
</TableRow>
```

```
<TableRow
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
```

```
<TextView
    android:layout_width="0dp"
```

```
android:layout_weight="1"  
android:gravity="center"  
android:padding="8dp"  
android:text="AMAZON" />
```

```
<TextView  
    android:layout_width="0dp"  
    android:layout_weight="1"  
    android:gravity="center"  
    android:padding="8dp"  
    android:text="HITACHI" />
```

```
<TextView  
    android:layout_width="0dp"  
    android:layout_weight="1"  
    android:gravity="center"  
    android:padding="8dp"  
    android:text="AECOM" />
```

```
<TextView  
    android:layout_width="0dp"  
    android:layout_weight="1"  
    android:gravity="center"  
    android:padding="8dp"  
    android:text="GE" />
```

```
</TableRow>
```



```
<TableRow  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content">
```

```
<TextView  
    android:layout_width="0dp"  
    android:layout_weight="1"  
    android:gravity="center"  
    android:padding="8dp"  
    android:text="ZOHO" />
```

```
<TextView  
    android:layout_width="0dp"  
    android:layout_weight="1"  
    android:gravity="center"  
    android:padding="8dp"  
    android:text="HONEYWELL" />
```

```
<TextView  
    android:layout_width="0dp"  
    android:layout_weight="1"  
    android:gravity="center"  
    android:padding="8dp"  
    android:text="BACHTEL" />
```

```
<TextView  
    android:layout_width="0dp"
```

```
        android:layout_weight="1"
        android:gravity="center"
        android:padding="8dp"
        android:text="TECH-MECH" />
</TableRow>
```

```
<TableRow
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
```

```
    <TextView
        android:layout_width="0dp"
        android:layout_weight="1"
        android:gravity="center"
        android:padding="8dp"
        android:text="FACEBOOK" />
```

```
    <TextView
        android:layout_width="0dp"
        android:layout_weight="1"
        android:gravity="center"
        android:padding="8dp"
        android:text="ABB" />
```

```
    <TextView
        android:layout_width="0dp"
        android:layout_weight="1"
```

```
    android:gravity="center"
    android:padding="8dp"
    android:text="JS BUILDER" />
```

```
<TextView
    android:layout_width="0dp"
    android:layout_weight="1"
    android:gravity="center"
    android:padding="8dp"
    android:text="HONEYWELL" />
```

```
</TableRow>
```

```
<!-- Add more rows as needed -->
```

```
</TableLayout>
```

```
</LinearLayout>
```

ACTIVITY_MAIN6.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:id="@+id/mainLayout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity6">
    <RadioGroup
```

```
android:id="@+id/deptRadioGroup"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:orientation="vertical">
```

```
<RadioButton
```

```
    android:id="@+id/cseRadioButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="CSE" />
```

```
<RadioButton
```

```
    android:id="@+id/eeeRadioButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="EEE" />
```

```
<RadioButton
```

```
    android:id="@+id/eceRadioButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="ECE" />
```

```
<RadioButton
```

```
    android:id="@+id/civilRadioButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
```

```

        android:text="Civil" />
</RadioGroup>

<Button
    android:id="@+id/showBooksButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/deptRadioGroup"
    android:layout_marginTop="16dp"
    android:text="Show Books"
    android:onClick="showBooks" />
<!-- Add TableLayout here dynamically in Java code -->
</RelativeLayout>

```

SOURCE CODE [JAVA PROGRAM]

MAIN_ACTIVITY.JAVA:

```
package com.example.cms;

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

public class MainActivity extends AppCompatActivity {

    private Button b;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        b=(Button)findViewById(R.id.button);

        b.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

                openActivity2();

            }

        });

    }

    public void openActivity2(){
```

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

```

        startActivity(intent);
    }
}

```

MAIN_ACTIVITY2.JAVA:

```

package com.example.cms;

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

public class MainActivity2 extends AppCompatActivity {
    private Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        TextView Username=(TextView) findViewById(R.id.username) ;
        TextViewPassword=(TextView)findViewById(R.id.editTextTextPassword)
;
        b1=(Button)findViewById(R.id.button2);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

```



```

        if(Username.getText().toString().equals("admin")&&
Password.getText().toString().equals("admin"))
        {
            Toast.makeText(MainActivity2.this,"HEY!!! YOU GOT IT
",Toast.LENGTH_SHORT).show();

            openActivity3();}
        else

            Toast.makeText(MainActivity2.this,"SORRY PLEASE REENTER
THE CORRECT DETAILS ",Toast.LENGTH_SHORT).show();

    }
});
}

public void openActivity3(){
    Intent intent=new Intent (this,MainActivity3.class);
    startActivity(intent);
}
}

```

MAIN_ACTIVITY3.JAVA:

```

package com.example.cms;

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

public class MainActivity3 extends AppCompatActivity {

    private Button w,p,r;

    @Override

```

```

protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main3);
    w=(Button)findViewById(R.id.button4);
    p=(Button)findViewById(R.id.button3);
    r=(Button)findViewById(R.id.button5);
    w.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            openActivity4();
        }
    });
    p.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            openActivity5();
        }
    });
    r.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            openActivity6();
        }
    });
}

public void openActivity4(){
    Intent intent=new Intent (this,MainActivity4.class);

```

```

        startActivity(intent);
    }
    public void openActivity5(){
        Intent intent=new Intent (this,MainActivity5.class);
        startActivity(intent);
    }
    public void openActivity6(){
        Intent intent=new Intent (this,MainActivity6.class);
        startActivity(intent);
    }
}

```

MAIN_ACTIVITY4.JAVA:

```

package com.example.cms;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
public class MainActivity4 extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main4);
    }
}

```

```

    RadioGroup departmentRadioGroup =
findViewById(R.id.departmentRadioGroup);

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

    TextView departmentAbstractTextView =
findViewById(R.id.departmentAbstract);

    showAbstractButton.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View view) {

            int selectedRadioButtonId =
departmentRadioGroup.getCheckedRadioButtonId();

            if (selectedRadioButtonId != -1) {

                RadioButton selectedRadioButton =
findViewById(selectedRadioButtonId);

                String selectedDepartment =
selectedRadioButton.getText().toString();

                String departmentAbstract =
getDepartmentAbstract(selectedDepartment);

                departmentAbstractTextView.setText(departmentAbstract);

            } else {

                departmentAbstractTextView.setText("Please select a
department");

            }

        }

    });

    // Sample method to get department abstract

    private String getDepartmentAbstract(String departmentName) {

        // You can replace this with actual abstracts for each department

        // For simplicity, I'm using a switch statement here

```

```

switch (departmentName.toLowerCase()) {
    case "cse":
        return "Computer science is a popular topic of study today, with
numerous applications spanning a wide range. Final-year students frequently
find it difficult to select the appropriate computer science project.\n" +

            "On the final day of graduation, projects are the only thing that
matters. Any IT-related industry where projects have a substantial impact can be
chosen for a job or further education. Project work indicates knowledge depth
as well as some soft skills like creativity and problem-solving. Your interview
prospects will also improve as a result of your final year projects. As a result, in
their last year of graduation, students are required to complete a project.\n" +

            "\n" +

            "Best Domain to Choose for Conducting the Projects\n" +

            "Artificial intelligence\n" +

            "Web Technology\n" +

            "Data Science\n" +

            "Machine Learning\n" +

            "IoT";
    case "eee":
        return "Electrical and Electronics Engineering abstract...";
    case "mechanical":
        return "Mechanical Engineering abstract...";
    case "ece":
        return "Electronics and Communication Engineering abstract...";
    default:
        return "No abstract available.";
}
}
}

```

MAIN_ACTIVITY5.JAVA:

```
package com.example.cms;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity5 extends AppCompatActivity {

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main5);

    }

}
```

MAIN_ACTIVITY6.JAVA:

```
package com.example.cms;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TableLayout;
import android.widget.TableRow;
import android.widget.TextView;
import android.widget.RelativeLayout;

public class MainActivity6 extends AppCompatActivity {

    private RadioGroup deptRadioGroup;
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private Button showBooksButton;
private TableLayout booksTableLayout;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main6);
    deptRadioGroup = findViewById(R.id.deptRadioGroup);
    showBooksButton = findViewById(R.id.showBooksButton);
    booksTableLayout = new TableLayout(this);
    showBooksButton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            showBooks();
        }
    });
}

public void showBooks() {
    // Get selected department
    int selectedDeptId = deptRadioGroup.getCheckedRadioButtonId();
    RadioButton selectedDeptRadioButton = findViewById(selectedDeptId);
    String selectedDept = selectedDeptRadioButton.getText().toString();
    // Clear existing table rows
    booksTableLayout.removeAllViews();
    // Create table header
    TableRow headerRow = new TableRow(this);
    TextView bookHeader = new TextView(this);
    bookHeader.setText("Book Name");

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headerRow.addView(bookHeader);
TextView authorHeader = new TextView(this);
authorHeader.setText("Author Name");
headerRow.addView(authorHeader);
booksTableLayout.addView(headerRow);
// Add data based on the selected department
if (selectedDept.equals("CSE")) {
    addRow("ARTIFICIAL INTELEGENCE", "KISHORE");
    addRow("MACHINE LEARNING", "Mani");
    addRow("HACKING", "KRISH");
    addRow("OBJECT ORIENTED", "RAVI");
    addRow("PYTHON", "DENI");
    addRow("C++", "ANU");
    addRow("JAVA", "LAKSHMAN");
    addRow("CLOUD COMPUTING", "Ram");
    addRow("COMPUTATION THEORY", "AKSHAY");
    addRow("MOBILE DEVICES", "THOMPSON");
    // Add more books for CSE
} else if (selectedDept.equals("EEE")) {
    addRow("Electricity Basics", "John");
    addRow("Circuit Analysis", "Smith");
    // Add more books for EEE
} else if (selectedDept.equals("ECE")) {
    addRow("Supreme", "Kavin");
    // Add more books for ECE
} else if (selectedDept.equals("Civil")) {
    addRow("Structural Engineering", "Alice");

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        addRow("Concrete Technology", "Bob");

        // Add more books for Civil
    }

    // Add the table to the layout

    RelativeLayout mainLayout = findViewById(R.id.mainLayout); //
    Assuming the main layout has the id 'mainLayout'

    RelativeLayout.LayoutParams layoutParams = new
    RelativeLayout.LayoutParams(

        RelativeLayout.LayoutParams.WRAP_CONTENT,

        RelativeLayout.LayoutParams.WRAP_CONTENT

    );

    layoutParams.addRule(RelativeLayout.BELOW, R.id.showBooksButton);
    booksTableLayout.setLayoutParams(layoutParams);
    mainLayout.addView(booksTableLayout);
}

private void addRow(String bookName, String authorName) {

    TableRow row = new TableRow(this);

    TextView bookNameTextView = new TextView(this);
    bookNameTextView.setText(bookName);
    row.addView(bookNameTextView);

    TextView authorNameTextView = new TextView(this);
    authorNameTextView.setText(authorName);
    row.addView(authorNameTextView);
    booksTableLayout.addView(row);
}
}

```