

Course Module: MIT3206 - Mobile Computing

Course Lecturer : Senior Lecturer Gihan P. Seneviratne Sir

Assignment 7 : Android App which is Supporting Basic Library Management Functions

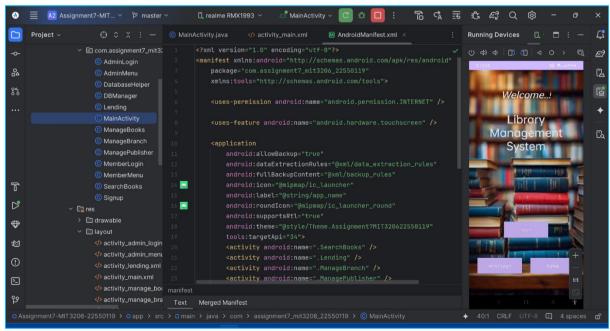
Assignment 7 Google Drive Uploaded Link:
https://drive.google.com/drive/folders/17os_DBLvaybymKlAAx8-af-PopzM2sCOf?usp=sharing

GitHub Private Repository Link:
https://github.com/NavinduMadusanka/Assignment7-MIT3206-22550119.git

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Assignment7-MIT3206-22550119



Assignment 7 : Android App which is Supporting Basic Library Management Functions

Below is a summary of what I have learned and focused on in this assignment.

1. Android Components

API level

Android Version	API Level	Version Name
Android 7.0	24	Nougat

• Newly learned key points in this assignment

- Develop codes to support CRUD functions
- Create / Maintain data in the SQLite database
- How to develop complete small android application
- Create user interface
- Working with DatabaseHelper & Create Database & Table

Component	Innovative	Minimum	Impact on Android	Usability
	Android	Supported		
	Version	Version		
SQL Lite	Android	Android 1.0	SQLite offers a	Suitable for apps
	1.0	(API Level 1)	lightweight database	needing structured
			solution, making it	data storage with
			easier to manage data	SQL capabilities.
			locally on the device.	



2. Functionality of the mobile application

The following steps were taken to create this application.

- 1. Analyze the requirements
- 2. Develop code to set up the tables
- 3. Develop codes to support CRUD functions
- 4. Integrate the codes to respective Buttons
- 5. Make attractive user interface
- 6. Test with real data

Following the above steps, the following modules were created.

This application consists of the main modules.

- Members
- Books
- Publisher
- Authors
- Lending
- Branch

In this module the CRUD functions are functional & maintain - Book details, Member details, Publisher details, Author details, Lending details & Branch details.

- Admin Login User Name "admin"
 Admin Login Password "admin123"
- Member Login User Name "navindu"
 Member Login Password "navindu"
- tools:targetApi="34" in AndroidMainfest.xml
- menu.xml in res
- ic_action_search_foreground.xml in drawable
- ic_launcher_background.xml in values & list_item.xml in layout



3. Running the Application on my android mobile device

I was running the android app for testing in my android mobile device.

My android mobile device is Realme X2 RMX1993.

Below is a Screenshots of my android mobile device (Realme X2 RMX1993) while the app was running.



Photo 1 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993

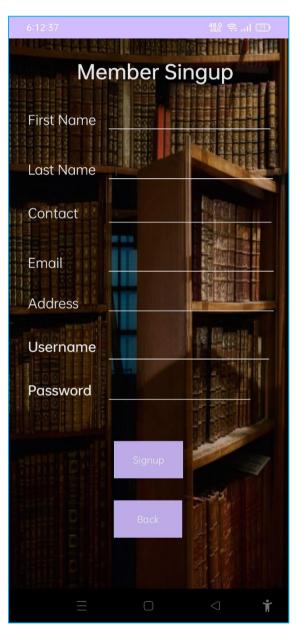


Photo 2 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993





Photo 3 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993

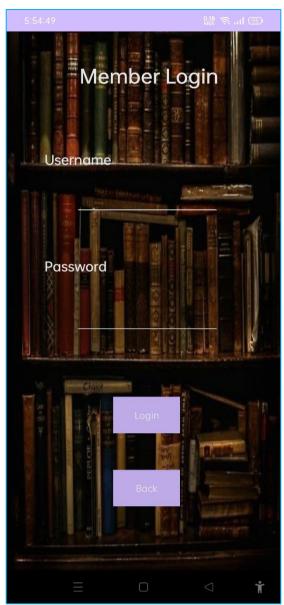


Photo 4 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



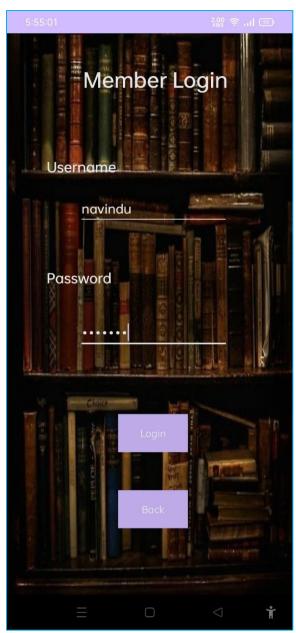


Photo 5 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



Photo 6 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



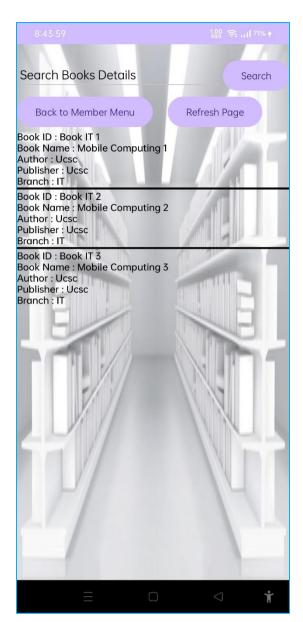


Photo 7 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993

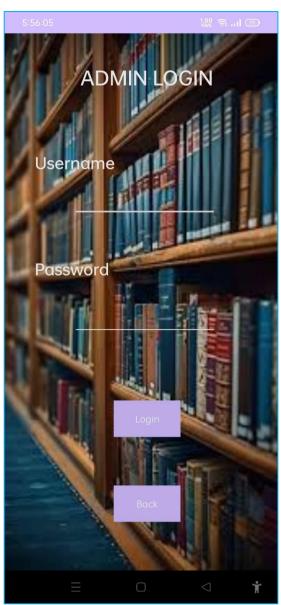


Photo 8 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



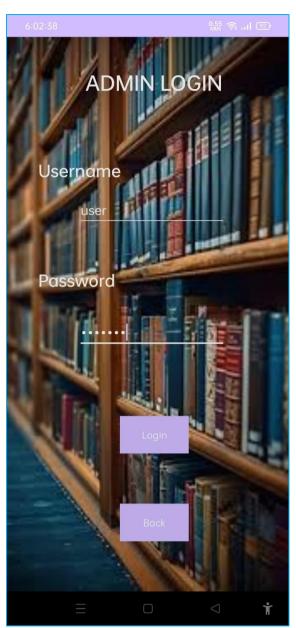


Photo 9 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



Photo 10 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993





Photo 11 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993

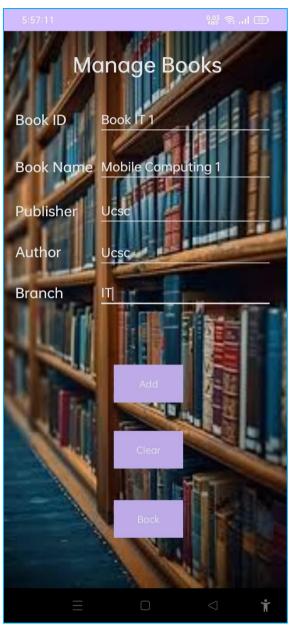


Photo 12 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993





Photo 13 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



Photo 14 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993





Photo 15 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



Photo 16 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993





Photo 17 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



Photo 18 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



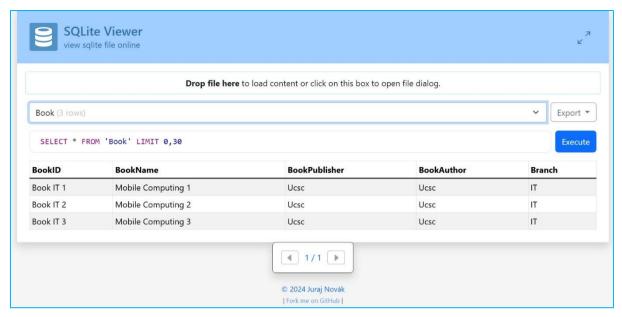


Photo 18: Assignment7-MIT3206-22550119-DatabaseBook in Realme X2 RMX1993

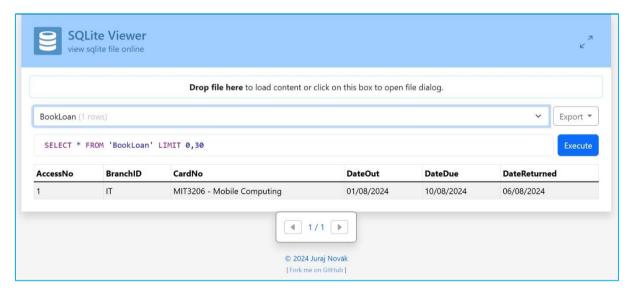


Photo 19: Assignment7-MIT3206-22550119-DatabaseBookLoan in Realme X2 RMX1993



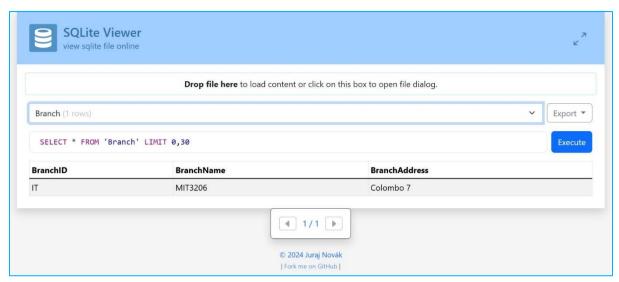


Photo 20: Assignment7-MIT3206-22550119-DatabaseBranch in Realme X2 RMX1993

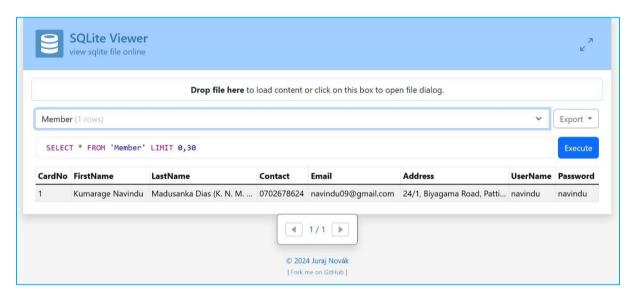


Photo 21: Assignment7-MIT3206-22550119-DatabaseMember in Realme X2 RMX1993

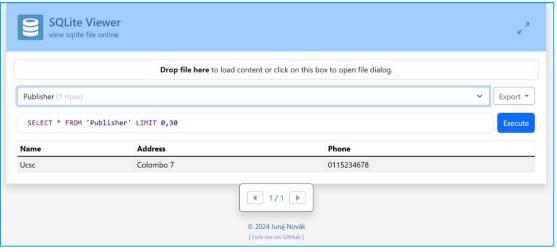


Photo 22: Assignment7-MIT3206-22550119-DatabasePublisher in Realme X2 RMX1993



4. Main Coding files

• MainActivity.java

```
package com.assignment7_mit3206_22550119;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
  private Button button;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    button = findViewById(R.id.btnregister);
    button.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        Signup();
      }
    });
    button = findViewById(R.id.btnadminlogin);
    button.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        AdminLogin();
      }
    });
    button = findViewById(R.id.btnmemlogin);
    button.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        MemberLogin();
      }
    });
  }
```



```
public void Signup(){
  Intent intent = new Intent(this, Signup.class);
  startActivity(intent);
}
public void MemberLogin(){
  Intent intent = new Intent(this, MemberLogin.class);
  startActivity(intent);
}
public void AdminLogin(){
  Intent intent = new Intent(this, AdminLogin.class);
  startActivity(intent);
}
public void MemberMenu(){
  Intent intent = new Intent(this, MemberMenu.class);
  startActivity(intent);
}
public void AdminMenu(){
  Intent intent = new Intent(this, AdminMenu.class);
  startActivity(intent);
}
public void DatabaseHelper() {
  Intent intent = new Intent(this, DatabaseHelper.class);
  startActivity(intent);
}
public void DBManager() {
  Intent intent = new Intent(this, DBManager.class);
  startActivity(intent);
}
public void Lending(){
  Intent intent = new Intent(this, Lending.class);
  startActivity(intent);
}
```

}



• AdminLogin.java

```
package com.assignment7 mit3206 22550119;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class AdminLogin extends AppCompatActivity {
  private Button button;
  EditText UserName, Password;
  Button login;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_admin_login);
    button = findViewById(R.id.btnback1);
    button.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        MainActivity();
      }
    });
    UserName = findViewById(R.id.txtUserName1);
    Password = findViewById(R.id.txtpass1);
    login = findViewById(R.id.login1);
    login.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        if (UserName.getText().toString().isEmpty() | |
Password.getText().toString().isEmpty()) {
          Toast.makeText(getApplicationContext(), "Fields can't be Null",
Toast.LENGTH SHORT).show();
        }
        else {
          if (UserName.getText().toString().equals("user") &&
```



```
Password.getText().toString().equals("user123")) {
             Toast.makeText(getApplicationContext(), "Successfully Logged as Admin",
Toast.LENGTH_SHORT).show();
             Intent libAdmin = new Intent(getApplicationContext(), AdminMenu.class);
             startActivity(libAdmin);
           }
           else {
             Toast.makeText(getApplicationContext(), "Invalid Login",
Toast.LENGTH_SHORT).show();
           }
        }
    });
  }
  public void MainActivity(){
    Intent intent = new Intent(this, MainActivity.class);
    startActivity(intent);
  }
  public void DatabaseHelper() {
    Intent intent = new Intent(this, DatabaseHelper.class);
    startActivity(intent);
  }
  public void DBManager() {
    Intent intent = new Intent(this, DBManager.class);
    startActivity(intent);
  }
  public void MemberMenu(){
    Intent intent = new Intent(this, MemberMenu.class);
    startActivity(intent);
  }
  public void Lending(){
    Intent intent = new Intent(this, Lending.class);
    startActivity(intent);
  }
}
```



• AdminMenu.java

```
package com.assignment7 mit3206 22550119;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import androidx.appcompat.app.AppCompatActivity;
public class AdminMenu extends AppCompatActivity {
  private Button logoutBtn, addingBtn, managePubBtn, branchBtn, lendingBtn;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_admin_menu);
    logoutBtn = findViewById(R.id.btnlogout);
    logoutBtn.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        MainActivity();
      }
    });
    addingBtn = findViewById(R.id.btnaddingB);
    addingBtn.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        ManageBooks();
      }
    });
    managePubBtn = findViewById(R.id.btnmanagepub);
    managePubBtn.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        ManagePublisher();
      }
    });
    branchBtn = findViewById(R.id.btnbranch);
    branchBtn.setOnClickListener(new View.OnClickListener() {
      @Override
```



```
public void onClick(View v) {
       ManageBranch();
    }
  });
  lendingBtn = findViewById(R.id.btnlending);
  lendingBtn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
       Lending();
    }
  });
}
public void ManageBooks() {
  Intent intent = new Intent(this, ManageBooks.class);
  startActivity(intent);
}
public void ManagePublisher() {
  Intent intent = new Intent(this, ManagePublisher.class);
  startActivity(intent);
}
public void ManageBranch() {
  Intent intent = new Intent(this, ManageBranch.class);
  startActivity(intent);
}
public void Lending() {
  Intent intent = new Intent(this, Lending.class);
  startActivity(intent);
}
public void MainActivity() {
  Intent intent = new Intent(this, MainActivity.class);
  startActivity(intent);
}
public void DatabaseHelper() {
  Intent intent = new Intent(this, DatabaseHelper.class);
  startActivity(intent);
}
public void DBManager() {
  Intent intent = new Intent(this, DBManager.class);
  startActivity(intent);
```



```
}
  public void MemberMenu() {
    Intent intent = new Intent(this, MemberMenu.class);
    startActivity(intent);
 }
}
          DatabaseHelper.java
package com.assignment7_mit3206_22550119;
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;
public class DatabaseHelper extends SQLiteOpenHelper{
  public static final String DATABASE_NAME="librarySystem";
  public static final String TABLE NAME="Member";
 //public static final String COL = "CardNo";
 //public static final String COL 1="FirstName";
 //public static final String COL 2="LastName";
 //public static final String COL_3="Contact";
 //public static final String COL 4="Email";
 //public static final String COL 5="Address";
 //public static final String COL 6="UserName";
 //public static final String COL 7="Password";
  public static final String TABLE_NAME1="Book";
  public static final String coloum1="BookID";
  public static final String coloum2="BookName";
  public static final String coloum3="BookPublisher";
  public static final String coloum4="BookAuthor";
  public static final String coloum5="Branch";
  public static final String TABLE NAME2="Publisher";
  public static final String COL1= "Name";
  public static final String COL2="Address";
  public static final String COL3="Phone";
```



```
public static final String TABLE NAME3="Branch";
  public static final String coloumm1="BranchID";
  public static final String coloumm2="BranchName";
  public static final String coloumm3="BranchAddress";
  public static final String TABLE NAME4="BookLoan";
 //private static final String CREATE TABLE = "create table " + TABLE NAME + "("
+COL+"INTEGER,"+ COL 1 + " TEXT," +
 //COL 2 +" TEXT," + COL 3 +" TEXT," + COL 4 +" TEXT," + COL 5 +" TEXT," + COL 6 +"
TEXT,"+ COL 7 +" TEXT);";
  private static final String CREATE TABLE1 = "create table " + TABLE NAME1 + "(" +
coloum1 + "TEXT," + coloum2 +"TEXT," +
      coloum3 +" TEXT,"+coloum4+" TEXT,"+coloum5+" TEXT);";
  private static final String CREATE TABLE2 = "create table " + TABLE NAME2 + "(" + COL1 +
" TEXT," + COL2 +" TEXT," +
      COL3 +" TEXT);";
  private static final String CREATE_TABLE3 = "create table " + TABLE_NAME3 + "(" +
coloumm1 + "TEXT," + coloumm2 +"TEXT," +
      coloumm3 +" TEXT);";
  public DatabaseHelper (@Nullable Context context){
    super (context, DATABASE NAME,null,1);
    Log.e("first","OpenDatabase");
 }
  @Override
  public void onCreate(SQLiteDatabase db) {
    Log.e("Test2","OnCreate Table");
    //db.execSQL(CREATE TABLE);
    db.execSQL("CREATE TABLE "
        + TABLE NAME
        + "(CardNo INTEGER PRIMARY KEY AUTOINCREMENT, FirstName VARCHAR(50),
LastName VARCHAR(50), "+
        "Contact VARCHAR(50), Email VARCHAR, Address VARCHAR, UserName VARCHAR,
Password VARCHAR)");
    db.execSQL(CREATE TABLE1);
   //db.execSQL("CREATE TABLE "
    //+ TABLE NAME1
   //+ "(BookID VARCHAR(50) PRIMARY KEY, BookName VARCHAR(50), BookPublisher
VARCHAR(50), "+
    //"BookAuthor VARCHAR(50))");
    db.execSQL(CREATE TABLE2);
```



```
db.execSQL(CREATE_TABLE3);
    db.execSQL("CREATE TABLE "
        + TABLE NAME4
        + "(AccessNo INTEGER PRIMARY KEY AUTOINCREMENT, BranchID VARCHAR(50),
CardNo VARCHAR(50), " +
        "DateOut VARCHAR(50), DateDue VARCHAR(50), DateReturned VARCHAR(50))");
 }
  @Override
  public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
    db.execSQL(" DROP TABLE IF EXISTS " + TABLE_NAME);
    db.execSQL(" DROP TABLE IF EXISTS " + TABLE_NAME1);
    db.execSQL(" DROP TABLE IF EXISTS " + TABLE NAME2);
    db.execSQL(" DROP TABLE IF EXISTS " + TABLE NAME3);
    db.execSQL(" DROP TABLE IF EXISTS " + TABLE_NAME4);
    onCreate(db);
 }
  public Cursor searchUsers(String text){
    SQLiteDatabase db = this.getReadableDatabase();
    String query = "Select * from "+TABLE_NAME1+" WHERE "+coloum2+ "OR"+coloum4+"
Like '@"+text+"@'";
    Cursor cursor = db.rawQuery(query,null);
    return cursor;
 }
  public Cursor viewData(){
    SQLiteDatabase db = this.getReadableDatabase();
    String query = "Select * from "+TABLE_NAME1;
    Cursor cursor = db.rawQuery(query, null);
    return cursor;
 }
 //search from query
  public Cursor searchUsers1(String text){
    SQLiteDatabase db = this.getReadableDatabase();
    String query = "Select * from "+TABLE_NAME1+" WHERE "+coloum2+ "OR"+coloum4+"
Like '@"+text+"@'";
    Cursor cursor = db.rawQuery(query, null);
    return cursor;
 }
}
```



• DBManager.java

```
package com.assignment7 mit3206 22550119;
import android.content.Context;
import android.database.Cursor;
import android.database.SQLException;
import android.database.sqlite.SQLiteDatabase;
public class DBManager {
  private DatabaseHelper dbHelper;
  private SQLiteDatabase database;
  private Context context;
  public DBManager(Context c) {
    context = c;
  }
  public DBManager open() throws SQLException {
    dbHelper = new DatabaseHelper(context);
    database = dbHelper.getWritableDatabase();
    return this;
  }
  public void close() {
    dbHelper.close();
  }
  public void insert(String query) {
    try {
      database.execSQL(query);
    } catch (Exception e) {
      System.out.println("ExecuteQuery error : " + e);
    }
  }
  public Cursor Select(String query) {
    Cursor cursor = database.rawQuery(query, null);
    return cursor;
  }
}
```



Lending.java

```
package com.assignment7 mit3206 22550119;
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.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class Lending extends AppCompatActivity {
  Button button;
  private DBManager dbManager;
  EditText editText1, editText2, editText3, editText4, editText5;
  Button addLendingBook;
  Button clearLendingBook;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_lending);
    button = findViewById(R.id.btnback6);
    button.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        AdminMenu();
      }
    });
    dbManager = new DBManager(this);
    dbManager.open();
    addLendingBook = findViewById(R.id.btnAddLend);
    clearLendingBook = findViewById(R.id.btnDeleteLend);
    editText1 = findViewById(R.id.txtBranchIDBook);
    editText2 = findViewById(R.id.txtCardNoBook);
    editText3 = findViewById(R.id.txtDateout);
    editText4 = findViewById(R.id.txtDaeDue);
    editText5 = findViewById(R.id.txtDateReturn);
```



```
addLendingBook.setOnClickListener(new View.OnClickListener() {
       @Override
      public void onClick(View v) {
         boolean valid = true;
         if (editText1.getText().toString().isEmpty() | |
editText2.getText().toString().isEmpty() | |
             editText3.getText().toString().isEmpty() ||
editText4.getText().toString().isEmpty() | |
             editText5.getText().toString().isEmpty()) {
           Toast.makeText(getApplicationContext(), "Fields can't be Null",
Toast.LENGTH SHORT).show();
           valid = false;
         }
         if (valid) {
           String BranchID = editText1.getText().toString();
           String CardNo = editText2.getText().toString();
           String DateOut = editText3.getText().toString();
           String DateDue = editText4.getText().toString();
           String DateReturned = editText5.getText().toString();
           dbManager.insert("insert into BookLoan values(?," + BranchID + "'," + CardNo +
               """ + DateOut + "',"" + DateDue + "',"" + DateReturned + "')");
           Toast.makeText(getApplicationContext(), "Successfully Inserted",
Toast.LENGTH SHORT).show();
           Log.e("first", "Inserted");
           dbManager.close();
         } else {
           Toast.makeText(getApplicationContext(), "Error in Branch Adding",
Toast.LENGTH SHORT).show();
         }
    });
  }
  public void AdminMenu() {
    Intent intent = new Intent(this, AdminMenu.class);
    startActivity(intent);
  }
  public void MainActivity() {
```



```
Intent intent = new Intent(this, MainActivity.class);
    startActivity(intent);
  }
  public void DatabaseHelper() {
    Intent intent = new Intent(this, DatabaseHelper.class);
    startActivity(intent);
  }
  public void DBManager() {
    Intent intent = new Intent(this, DBManager.class);
    startActivity(intent);
  }
  public void MemberMenu(){
    Intent intent = new Intent(this, MemberMenu.class);
    startActivity(intent);
  }
}
         ManageBooks.java
package com.assignment7 mit3206 22550119;
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.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class ManageBooks extends AppCompatActivity {
  Button button;
  private DBManager dbManager;
  EditText editText1, editText2, editText3, editText4, editText5;
  Button addbook;
  Button clear;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
```



```
setContentView(R.layout.activity manage books);
    button = findViewById(R.id.btnback3);
    button.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        AdminMenu();
      }
    });
    dbManager = new DBManager(this);
    dbManager.open();
    addbook = findViewById(R.id.btnbookadd);
    clear = findViewById(R.id.btndelete);
    editText1 = findViewById(R.id.txtBookID);
    editText2 = findViewById(R.id.txtBooktitle);
    editText3 = findViewById(R.id.txtpublishername);
    editText4 = findViewById(R.id.txtauthorname2);
    editText5 = findViewById(R.id.txtaddbranchname);
    addbook.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        boolean valid = true;
        if (editText1.getText().toString().isEmpty() | |
editText2.getText().toString().isEmpty() | |
             editText3.getText().toString().isEmpty() | |
editText4.getText().toString().isEmpty() | |
             editText5.getText().toString().isEmpty()) {
           Toast.makeText(getApplicationContext(), "Fields can't be Null",
Toast.LENGTH_SHORT).show();
           valid = false;
        }
        if (valid) {
           String BookID = editText1.getText().toString();
           String BookName = editText2.getText().toString();
           String BookPublisher = editText3.getText().toString();
           String BookAuthor = editText4.getText().toString();
           String Branch = editText5.getText().toString();
           dbManager.insert("insert into Book values("" + BookID + "'," + BookName + "'," +
```



```
""" + BookPublisher + "','" + BookAuthor + "','" + Branch + "')");
           Toast.makeText(getApplicationContext(), "Successfully Inserted",
Toast.LENGTH SHORT).show();
           Log.e("first", "Inserted");
           dbManager.close();
           Toast.makeText(getApplicationContext(), "Error in Book Adding",
Toast.LENGTH_SHORT).show();
         }
      }
    });
    clear.setOnClickListener(new View.OnClickListener() {
       @Override
      public void onClick(View view) {
         editText1.getText().clear();
         editText2.getText().clear();
         editText3.getText().clear();
         editText4.getText().clear();
         editText5.getText().clear();
         Toast.makeText(getApplicationContext(),
             "Successfully Deleted", Toast.LENGTH_SHORT).show();
      }
    });
  }
  public void AdminMenu() {
    Intent intent = new Intent(this, AdminMenu.class);
    startActivity(intent);
  }
  public void MainActivity() {
    Intent intent = new Intent(this, MainActivity.class);
    startActivity(intent);
  }
  public void DatabaseHelper() {
    Intent intent = new Intent(this, DatabaseHelper.class);
    startActivity(intent);
  }
  public void DBManager() {
    Intent intent = new Intent(this, DBManager.class);
    startActivity(intent);
```



```
}
  public void Lending() {
    Intent intent = new Intent(this, Lending.class);
    startActivity(intent);
 }
  public void MemberMenu(){
    Intent intent = new Intent(this, MemberMenu.class);
    startActivity(intent);
 }
}
       • ManageBranch.java
package com.assignment7 mit3206 22550119;
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.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class ManageBranch extends AppCompatActivity {
  Button button;
  private DBManager dbManager;
  EditText editText1, editText2, editText3;
  Button addbranch;
  Button clearbranch;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_manage_branch);
    button = findViewById(R.id.btnback5);
    button.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        AdminMenu();
      }
```



```
});
    dbManager= new DBManager(this);
    dbManager.open();
    addbranch = findViewById(R.id.btnBranchAdd);
    clearbranch = findViewById(R.id.btnBrachDelete);
    editText1 = findViewById(R.id.txtBrachId);
    editText2 = findViewById(R.id.txtBrachName);
    editText3 = findViewById(R.id.txtbranchadd);
    addbranch.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        boolean valid = true;
        if (editText1.getText().toString().isEmpty() | |
editText2.getText().toString().isEmpty()||
             editText3.getText().toString().isEmpty()) {
          Toast.makeText(getApplicationContext(), "Fields can't be Null",
Toast.LENGTH_SHORT).show();
          valid = false;
        }
        if(valid) {
          String BranchID = editText1.getText().toString();
          String BranchName = editText2.getText().toString();
          String BranchAddress = editText3.getText().toString();
          dbManager.insert("insert into Branch values("" + BranchID + "', "" + BranchName +
               "'" + BranchAddress + "')");
          Toast.makeText(getApplicationContext(), "Successfully Inserted",
Toast.LENGTH SHORT).show();
          Log.e("first","Inserted");
          dbManager.close();
        }
        else
          Toast.makeText(getApplicationContext(), "Error in Branch Adding",
Toast.LENGTH_SHORT).show();
        }
```



```
}
  });
  clearbranch.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
       editText1.getText().clear();
       editText2.getText().clear();
       editText3.getText().clear();
       Toast.makeText(getApplicationContext(),
           "Successfully Deleted", Toast.LENGTH_SHORT).show();
    }
  });
}
public void AdminMenu(){
  Intent intent = new Intent(this, AdminMenu.class);
  startActivity(intent);
}
public void MainActivity(){
  Intent intent = new Intent(this, MainActivity.class);
  startActivity(intent);
}
public void DatabaseHelper() {
  Intent intent = new Intent(this, DatabaseHelper.class);
  startActivity(intent);
}
public void DBManager() {
  Intent intent = new Intent(this, DBManager.class);
  startActivity(intent);
}
public void Lending(){
  Intent intent = new Intent(this, Lending.class);
  startActivity(intent);
}
public void MemberMenu(){
  Intent intent = new Intent(this, MemberMenu.class);
  startActivity(intent);
}
```

}



• ManagePublisher.java

```
package com.assignment7 mit3206 22550119;
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.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class ManagePublisher extends AppCompatActivity {
  Button button;
  private DBManager dbManager;
  EditText editText1, editText2, editText3;
  Button addpublish;
  Button clearpub;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_manage_publisher);
    button = findViewById(R.id.btnback4);
    button.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        AdminMenu();
      }
    });
    dbManager= new DBManager(this);
    dbManager.open();
    addpublish = findViewById(R.id.btnaddpub);
    clearpub = findViewById(R.id.btndeletepub);
    editText1 = findViewById(R.id.txtPubName);
    editText2 = findViewById(R.id.txtpublisheradd);
    editText3 = findViewById(R.id.txtpubcontact);
    addpublish.setOnClickListener(new View.OnClickListener() {
```



```
@Override
      public void onClick(View v) {
         boolean valid = true;
         if (editText1.getText().toString().isEmpty() | |
editText2.getText().toString().isEmpty()||
             editText3.getText().toString().isEmpty()) {
           Toast.makeText(getApplicationContext(), "Fields can't be Null",
Toast.LENGTH SHORT).show();
           valid = false;
         }
         if(valid) {
           String Name = editText1.getText().toString();
           String Address = editText2.getText().toString();
           String Phone = editText3.getText().toString();
           dbManager.insert("insert into Publisher values("" + Name + "',"" + Address + "'," +
               """ + Phone + "")");
           Toast.makeText(ManagePublisher.this, "Successfully Inserted",
Toast.LENGTH SHORT).show();
           Log.e("first","Inserted");
           dbManager.close();
         }
         else
         {
           Toast.makeText(ManagePublisher.this, "Error in Publisher Adding",
Toast.LENGTH_SHORT).show();
         }
      }
    });
    clearpub.setOnClickListener(new View.OnClickListener() {
       @Override
      public void onClick(View view) {
         editText1.getText().clear();
         editText2.getText().clear();
         editText3.getText().clear();
         Toast.makeText(getApplicationContext(),
             "Successfully Deleted", Toast.LENGTH_SHORT).show();
      }
```



```
});
  }
  public void AdminMenu(){
    Intent intent = new Intent(this, AdminMenu.class);
    startActivity(intent);
  }
  public void MainActivity(){
    Intent intent = new Intent(this, MainActivity.class);
    startActivity(intent);
  }
  public void DatabaseHelper() {
    Intent intent = new Intent(this, DatabaseHelper.class);
    startActivity(intent);
  }
  public void DBManager() {
    Intent intent = new Intent(this, DBManager.class);
    startActivity(intent);
  }
  public void Lending(){
    Intent intent = new Intent(this, Lending.class);
    startActivity(intent);
  }
  public void MemberMenu(){
    Intent intent = new Intent(this, MemberMenu.class);
    startActivity(intent);
  }
}
           MemberLogin.java
package com.assignment7_mit3206_22550119;
import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
```



```
import androidx.appcompat.app.AppCompatActivity;
public class MemberLogin extends AppCompatActivity {
  private Button bckButton;
  EditText UserName, Password;
  Button login;
  private DBManager dbManager;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_member_login);
    bckButton = findViewById(R.id.btnback2);
    bckButton.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        MainActivity();
      }
    });
    dbManager = new DBManager(this);
    dbManager.open();
    UserName = findViewById(R.id.txtUserName2);
    Password = findViewById(R.id.txtpass2);
    login = findViewById(R.id.login2);
    login.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        if (UserName.getText().toString().isEmpty() | |
Password.getText().toString().isEmpty()) {
          Toast.makeText(getApplicationContext(), "Fields can't be Null",
Toast.LENGTH_SHORT).show();
        }
        else
        {
          boolean valid;
          if(valid = true)
            Cursor cursor = dbManager.Select("select * from Member where UserName=""
+ UserName.getText() +
                 "' AND Password="" + Password.getText() + """);
            if (cursor.moveToNext()) {
```



```
Toast.makeText(MemberLogin.this, "Successfully Logged",
Toast.LENGTH_SHORT).show();
               Intent Member = new Intent(getApplicationContext(), MemberMenu.class);
               startActivity(Member);
             }
             else
               Toast.makeText(getApplicationContext(), "Invalid Login",
Toast.LENGTH_SHORT).show();
          }
        }
      }
    });
  public void MainActivity(){
    Intent intent = new Intent(this, MainActivity.class);
    startActivity(intent);
  }
  public void DatabaseHelper() {
    Intent intent = new Intent(this, DatabaseHelper.class);
    startActivity(intent);
  }
  public void DBManager() {
    Intent intent = new Intent(this, DBManager.class);
    startActivity(intent);
  }
  public void MemberMenu(){
    Intent intent = new Intent(this, MemberMenu.class);
    startActivity(intent);
  }
}
          MemberMenu.java
package com.assignment7 mit3206 22550119;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
```



```
import androidx.appcompat.app.AppCompatActivity;
public class MemberMenu extends AppCompatActivity {
  Button button;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_member_menu);
    button = findViewById(R.id.btnmemberlogout);
    button.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        MainActivity();
      }
    });
    button = findViewById(R.id.btnsearchbooks);
    button.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) { SearchBooks(); }
   });
  }
  public void MainActivity(){
    Intent intent = new Intent(this, MainActivity.class);
    startActivity(intent);
  }
  public void SearchBooks(){
    Intent intent = new Intent(this, SearchBooks.class);
    startActivity(intent);
  }
  public void DatabaseHelper() {
    Intent intent = new Intent(this, DatabaseHelper.class);
    startActivity(intent);
 }
  public void DBManager() {
    Intent intent = new Intent(this, DBManager.class);
    startActivity(intent);
  }
  public void Lending(){
```



```
Intent intent = new Intent(this, Lending.class);
startActivity(intent);
}

• SearchBooks.java
```

package com.assignment7 mit3206 22550119; import android.content.Intent; import android.database.Cursor; import android.graphics.Color; import android.os.Bundle; import android.view.KeyEvent; import android.view.View; import android.widget.AdapterView; import android.widget.ArrayAdapter; import android.widget.Button; import android.widget.EditText; import android.widget.ListView; import android.widget.TextView; import android.widget.Toast; import androidx.appcompat.app.AppCompatActivity; import java.util.ArrayList; import java.util.List; public class SearchBooks extends AppCompatActivity { private ListView listView; private TextView textView; private EditText searchEditText; private Button backButton; private Button searchButton; private Button refreshButton; private DBManager dbManager; private List<String> bookList; @Override protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity_search_books); listView = findViewById(R.id.listView); textView = findViewById(R.id.textView);



```
textView.setTextColor(Color.BLACK);
    searchEditText = findViewById(R.id.searchEditText);
    backButton = findViewById(R.id.backButton);
    searchButton = findViewById(R.id.searchButton);
    refreshButton = findViewById(R.id.refreshButton);
    dbManager = new DBManager(this);
    dbManager.open();
    bookList = new ArrayList<>();
    Cursor cursor = dbManager.Select("SELECT * FROM Book");
    if (cursor.moveToFirst()) {
      do {
        bookList.add("Book ID: " + cursor.getString(0) +'\n'+ "Book Name: " +
cursor.getString(1) +'\n' + "Author: " + cursor.getString(2) +'\n' + "Publisher: " +
cursor.getString(3) +'\n' + "Branch : " + cursor.getString(4));
      } while (cursor.moveToNext());
    }
    cursor.close();
    ArrayAdapter<String> adapter = new ArrayAdapter<String>(this, R.layout.list item,
R.id.list item text, bookList);
    listView.setAdapter(adapter);
    listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
      @Override
      public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
        String bookInfo = bookList.get(position);
        Toast.makeText(SearchBooks.this, "You had Selected this Book: " + bookInfo,
Toast.LENGTH SHORT).show();
      }
    });
    searchEditText.setOnKeyListener(new View.OnKeyListener() {
      @Override
      public boolean onKey(View v, int keyCode, KeyEvent event) {
        if ((event.getAction() == KeyEvent.ACTION_DOWN) &&
             (keyCode == KeyEvent.KEYCODE ENTER)) {
          searchBooks();
          return true;
        }
        return false;
      }
    });
    refreshButton.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
```



```
searchEditText.clearComposingText();
        searchBooks();
      }
    });
    searchButton.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        searchEditText.getText();
        searchBooks();
      }
    });
    backButton.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        MemberMenu();
      }
    });
 }
  private void searchBooks() {
    String searchQuery = searchEditText.getText().toString();
    bookList.clear();
    Cursor cursor = dbManager.Select("SELECT * FROM Book WHERE BookID LIKE '%" +
searchQuery + "%' OR BookName LIKE '%" + searchQuery + "%' OR BookAuthor LIKE '%" +
searchQuery + "%' OR BookPublisher LIKE '%" + searchQuery + "%'");
    if(cursor.getCount() == 0){
      Toast.makeText(SearchBooks.this, "Book Not Found", Toast.LENGTH SHORT).show();
    }else{
      while (cursor.moveToNext()){
        bookList.add("Book ID: " + cursor.getString(0) +'\n'+ "Book Name: " +
cursor.getString(1) +'\n'+ "Author: " + cursor.getString(2) +'\n'+ "Publisher: " +
cursor.getString(3) +'\n'+ "Branch : " + cursor.getString(4));
      }
    }
    cursor.close();
    ArrayAdapter<String> adapter = (ArrayAdapter<String>) listView.getAdapter();
    adapter.notifyDataSetChanged();
 }
  public void MemberMenu() {
    Intent intent = new Intent(this, MemberMenu.class);
    startActivity(intent);
  }
  public void DatabaseHelper() {
```



```
Intent intent = new Intent(this, DatabaseHelper.class);
    startActivity(intent);
  }
  public void DBManager() {
    Intent intent = new Intent(this, DBManager.class);
    startActivity(intent);
  }
  public void Lending(){
    Intent intent = new Intent(this, Lending.class);
    startActivity(intent);
  }
  public void MainActivity() {
    Intent intent = new Intent(this, MainActivity.class);
    startActivity(intent);
  }
}
          Signup.java
package com.assignment7 mit3206 22550119;
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.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class Signup extends AppCompatActivity {
  private Button bckButton;
  private DBManager dbManager;
  EditText eT1, eT2, eT3, eT4, eT5, eT6, eT7;
  Button signUp;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_signup);
```



```
dbManager= new DBManager(this);
    signUp = findViewById(R.id.btnSignUpS);
    eT1 = findViewById(R.id.txtFirstName);
    eT2 = findViewById(R.id.txtLastName);
    eT3 = findViewById(R.id.txtPhone);
    eT4 = findViewById(R.id.txtEmailAdd);
    eT5 = findViewById(R.id.txtaddress);
    eT6 = findViewById(R.id.txtUserName);
    eT7 = findViewById(R.id.txtpass);
    bckButton = findViewById(R.id.btnback);
    bckButton.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        MainActivity();
      }
    });
    signUp.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        boolean valid = true;
        if (eT1.getText().toString().isEmpty() || eT2.getText().toString().isEmpty() ||
eT3.getText().toString().isEmpty()
             | eT4.getText().toString().isEmpty() | eT5.getText().toString().isEmpty() | |
eT6.getText().toString().isEmpty()
             || eT7.getText().toString().isEmpty()) {
           Toast.makeText(getApplicationContext(), "Fields can't be Null",
Toast.LENGTH_SHORT).show();
           valid = false;
        }
        if(valid) {
           String FirstName = eT1.getText().toString();
           String LastName = eT2.getText().toString();
           String Phone = eT3.getText().toString();
           String EmailAdd = eT4.getText().toString();
           String Address = eT5.getText().toString();
           String UserName = eT6.getText().toString();
           String Password = eT7.getText().toString();
           dbManager.open();
           dbManager.insert("insert into Member values(?,"" + FirstName + "',"" + LastName
```



```
"'" + Phone + "','" + EmailAdd + "','" + Address + "','" + UserName + "','" +
Password + "')");
          Toast.makeText(getApplicationContext(), "Successfully Inserted All Data",
Toast.LENGTH SHORT).show();
          Log.e("first","inserted");
          dbManager.close();
          Intent login = new Intent(getApplicationContext(), MemberMenu.class);
          startActivity(login);
        }
        else
          Toast.makeText(getApplicationContext(), "Error in Sign Up Process",
Toast.LENGTH_SHORT).show();
        }
      }
    });
  public void MainActivity(){
    Intent intent = new Intent(this, MainActivity.class);
    startActivity(intent);
 }
  public void DatabaseHelper() {
    Intent intent = new Intent(this, DatabaseHelper.class);
    startActivity(intent);
 }
  public void DBManager() {
    Intent intent = new Intent(this, DBManager.class);
    startActivity(intent);
 }
}
          activity main.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:alpha="0.9"
  android:background="@drawable/library"
```



tools:context=".MainActivity">

```
<TextView
  android:id="@+id/textView5"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginTop="30dp"
  android:backgroundTintMode="src_over"
  android:text="Welcome..!"
  android:textAppearance="@style/TextAppearance.AppCompat.Body1"
  android:textColor="@color/ic launcher background"
  android:textSize="34sp"
  android:textStyle="bold|italic"
  app:fontFamily="serif"
  app:layout constraintBottom toTopOf="@+id/textView4"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.497"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.452" />
<TextView
  android:id="@+id/textView4"
  android:layout width="328dp"
  android:layout height="160dp"
  android:layout marginTop="130dp"
  android:backgroundTintMode="src_over"
  android:text="Library Management System"
  android:textAlignment="center"
  android:textAllCaps="false"
  android:textColor="#F6FAF9"
  android:textSize="40sp"
  android:textStyle="bold"
  app:fontFamily="serif"
  app:layout constraintBottom toTopOf="@+id/btnadminlogin"
  app:layout_constraintEnd_toEndOf="parent"
  app:layout constraintHorizontal bias="0.493"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0" />
<Button
  android:id="@+id/btnmemlogin"
  style="@style/Widget.AppCompat.Button"
  android:layout width="140dp"
  android:layout height="50dp"
  android:background="@color/colorPrimaryDark"
```



```
android:backgroundTintMode="src_over"
  android:text="Login"
  android:textAllCaps="false"
  android:textColor="@android:color/white"
  android:textStyle="bold"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.498"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.725" />
<Button
  android:id="@+id/btnadminlogin"
  style="@style/Widget.AppCompat.Button"
  android:layout width="140dp"
  android:layout height="50dp"
  android:background="@color/colorPrimaryDark"
  android:backgroundTintMode="src_over"
  android:text="Admin Login"
  android:textAllCaps="false"
  android:textColor="@android:color/white"
  android:textStyle="bold"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toStartOf="@+id/btnregister"
  app:layout_constraintHorizontal bias="0.5"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.897" />
<Button
  android:id="@+id/btnregister"
  android:layout width="140dp"
  android:layout height="50dp"
  android:background="@color/colorPrimaryDark"
  android:backgroundTintMode="src over"
  android:text="Signup"
  android:textColor="@android:color/white"
  android:textStyle="bold"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.5"
  app:layout constraintStart toEndOf="@+id/btnadminlogin"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.897" />
```



activity_admin_login.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:alpha="0.9"
  android:alwaysDrawnWithCache="false"
  android:animateLayoutChanges="false"
  android:animationCache="false"
  android:background="@drawable/library1"
  tools:context=".AdminLogin"
  tools:visibility="visible">
  <TextView
    android:id="@+id/textView5"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="100dp"
    android:layout marginTop="40dp"
    android:backgroundTintMode="src_over"
    android:text="ADMIN LOGIN"
    android:textColor="@color/ic launcher background"
    android:textSize="30sp"
    android:textStyle="bold"
    app:fontFamily="monospace"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <TextView
    android:id="@+id/txtuname1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="40dp"
    android:layout marginTop="156dp"
    android:textStyle="bold"
    android:text="Username"
    android:textColor="@color/ic launcher background"
    android:backgroundTintMode="src_over"
    android:textSize="24sp"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
```

<TextView



```
android:id="@+id/txtpassword1"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="40dp"
  android:layout marginTop="296dp"
  android:textStyle="bold"
  android:text="Password"
  android:textColor="@color/ic launcher background"
  android:textSize="24sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtUserName1"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="90dp"
  android:layout marginTop="200dp"
  android:backgroundTint="#ECE6E6"
  android:cursorVisible="false"
  android:textStyle="bold"
  android:ems="10"
  android:inputType="textPersonName"
  android:textColor="#F4F0F0"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtpass1"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="90dp"
  android:layout marginTop="356dp"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:inputType="textPassword"
  android:textColor="@color/ic launcher background"
  android:textStyle="bold"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<Button
  android:id="@+id/login1"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="144dp"
  android:layout_marginTop="484dp"
```



```
android:background="@color/colorPrimaryDark"
    android:backgroundTintMode="src_over"
    android:text="Login"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <Button
    android:id="@+id/btnback1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="144dp"
    android:layout marginTop="596dp"
    android:background="@color/colorPrimaryDark"
    android:backgroundTintMode="src_over"
    android:text="Back"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
         activity_admin_menu.xml
<?xml version="1.0" encoding="utf-8"?>
```

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android" xmlns:app="http://schemas.android.com/apk/res-auto" xmlns:tools="http://schemas.android.com/tools" android:layout_width="match_parent" android:layout_height="match_parent" android:background="@drawable/library1" tools:context=".AdminMenu"> <TextView android:id="@+id/textView6" android:layout_width="wrap_content" android:layout_height="wrap_content"</p>



```
app:fontFamily="monospace"
 app:layout constraintStart toStartOf="parent"
 app:layout constraintTop toTopOf="parent" />
<Button
 android:id="@+id/btnaddingB"
 android:layout width="280dp"
 android:layout height="49dp"
 android:layout marginTop="92dp"
 android:background="@color/colorPrimaryDark"
 android:text="Manage Book"
 android:textColor="@android:color/white"
 android:textStyle="bold"
 app:layout constraintBottom toTopOf="@+id/btnmanagepub"
 app:layout constraintEnd toEndOf="parent"
 app:layout constraintHorizontal bias="0.503"
 app:layout constraintStart toStartOf="parent"
 app:layout constraintTop toTopOf="parent"
 app:layout constraintVertical bias="0.465" />
<Button
 android:id="@+id/btnmanagepub"
 android:layout width="280dp"
 android:layout height="49dp"
 android:layout marginTop="176dp"
 android:background="@color/colorPrimaryDark"
 android:text="Manage Publisher"
 android:textColor="@android:color/white"
 android:textStyle="bold"
 app:layout constraintBottom toTopOf="@+id/btnbranch"
 app:layout constraintEnd toEndOf="parent"
 app:layout constraintHorizontal bias="0.503"
 app:layout constraintStart toStartOf="parent"
 app:layout constraintTop toTopOf="parent"
 app:layout constraintVertical bias="0.505" />
<Button
 android:id="@+id/btnbranch"
 android:layout width="280dp"
 android:layout height="49dp"
 android:layout marginTop="244dp"
 android:background="@color/colorPrimaryDark"
 android:text="Manage Branch"
 android:textColor="@android:color/white"
 android:textStyle="bold"
 app:layout constraintBottom toTopOf="@+id/btnlending"
 app:layout constraintEnd toEndOf="parent"
```



```
app:layout constraintHorizontal bias="0.503"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.606" />
  <Button
    android:id="@+id/btnlending"
    android:layout width="280dp"
    android:layout height="49dp"
    android:background="@color/colorPrimaryDark"
    android:text="Book Lending"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.503"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.623" />
  <Button
    android:id="@+id/btnlogout"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="228dp"
    android:layout marginTop="576dp"
    android:background="@color/colorPrimary"
    android:text="Logout"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity lending.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:alpha="0.9"
   android:background="@drawable/library1"</pre>
```



```
tools:context=".Lending">
<TextView
  android:id="@+id/textView9"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="104dp"
  android:layout marginTop="40dp"
  android:text="Book Lending"
  android:textColor="@color/ic launcher background"
  android:textSize="30sp"
  android:textStyle="bold"
  app:fontFamily="monospace"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtbrach"
  android:layout width="96dp"
  android:layout height="36dp"
  android:layout marginStart="25dp"
  android:layout marginTop="112dp"
  android:textStyle="bold"
  android:text="Branch ID"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout_constraintTop_toTopOf="parent" />
<EditText
  android:id="@+id/txtBranchIDBook"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="125dp"
  android:layout marginTop="107dp"
  android:textStyle="bold"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:inputType="textPersonName"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
```

android:id="@+id/txtCardNo" android:layout_width="96dp" android:layout_height="36dp"



```
android:layout marginStart="25dp"
  android:layout marginTop="168dp"
  android:textStyle="bold"
  android:text="Card No"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtCardNoBook"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="125dp"
  android:layout marginTop="163dp"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:inputType="textPersonName"
  android:textStyle="bold"
  android:textColor="@color/ic launcher background"
  app:layout_constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtDate1"
  android:layout width="96dp"
  android:layout height="36dp"
  android:layout marginStart="25dp"
  android:layout marginTop="232dp"
  android:textStyle="bold"
  android:text="Date Out"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtDateout"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="125dp"
  android:layout marginTop="227dp"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:inputType="textPersonName"
  android:textStyle="bold"
  android:textColor="@color/ic launcher background"
```



```
app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtDate2"
  android:layout width="96dp"
  android:layout height="36dp"
  android:layout marginStart="24dp"
  android:layout marginTop="300dp"
  android:text="Date Due"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  android:textStyle="bold"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtDaeDue"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="125dp"
  android:layout marginTop="295dp"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:textStyle="bold"
  android:inputType="textPersonName"
  android:textColor="@color/ic launcher background"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtDate3"
  android:layout width="120dp"
  android:layout height="36dp"
  android:layout marginStart="23dp"
  android:layout marginTop="376dp"
  android:text="Date Return"
  android:textStyle="bold"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtDateReturn"
  android:layout width="222dp"
  android:layout_height="39dp"
```



```
android:layout marginStart="127dp"
  android:layout marginTop="371dp"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:textStyle="bold"
  android:inputType="textPersonName"
  android:textColor="@color/ic launcher background"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<Button
  android:id="@+id/btnAddLend"
  android:layout width="142dp"
  android:layout height="46dp"
  android:background="@color/colorPrimaryDark"
  android:text="Add"
  android:textColor="@android:color/white"
  android:textStyle="bold"
  app:layout constraintBottom toTopOf="@+id/btnDeleteLend"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.531"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toBottomOf="@+id/txtDateReturn"
  app:layout constraintVertical bias="0.633" />
<Button
  android:id="@+id/btnDeleteLend"
  android:layout width="142dp"
  android:layout height="46dp"
  android:layout marginBottom="28dp"
  android:background="@color/colorPrimaryDark"
  android:text="Clear"
  android:textColor="@android:color/white"
  android:textStyle="bold"
  app:layout constraintBottom toTopOf="@+id/btnback6"
  app:layout_constraintEnd_toEndOf="parent"
  app:layout constraintHorizontal bias="0.529"
  app:layout_constraintStart_toStartOf="parent"
  app:layout constraintTop toBottomOf="@+id/txtDateReturn"
  app:layout constraintVertical bias="0.922" />
<Button
  android:id="@+id/btnback6"
  android:layout width="142dp"
  android:layout height="46dp"
  android:background="@color/colorPrimaryDark"
  android:text="Back"
```



```
android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.526"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toBottomOf="@+id/txtDateReturn"
    app:layout constraintVertical bias="0.881" />
</androidx.constraintlayout.widget.ConstraintLayout>
         activity_manage_books.xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
  xmlns:android="http://schemas.android.com/apk/res/android"
  xmlns:app="http://schemas.android.com/apk/res-auto"
  xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
  android:layout height="match parent"
  android:background="@drawable/library1"
  android:alpha="0.9"
  tools:context=".ManageBooks">
  <TextView
    android:id="@+id/textView7"
    android:layout width="wrap content"
    android:layout_height="wrap content"
    android:layout marginStart="88dp"
    android:layout marginTop="24dp"
    android:text="Manage Books"
    android:textColor="@color/ic launcher background"
    android:textSize="30sp"
    android:textStyle="bold"
    app:fontFamily="monospace"
    app:layout constraintStart toStartOf="parent"
```

<TextView

```
android:id="@+id/txtbook"
android:layout_width="96dp"
android:layout_height="36dp"
android:layout_marginStart="15dp"
android:layout_marginTop="100dp"
android:textStyle="bold"
android:text="Book ID"
```

app:layout constraintTop toTopOf="parent" />



```
android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtBookID"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="120dp"
  android:layout marginTop="95dp"
  android:textStyle="bold"
  android:ems="10"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  android:inputType="textPersonName"
  app:layout_constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txttitle"
  android:layout width="107dp"
  android:layout height="39dp"
  android:layout marginStart="15dp"
  android:layout marginTop="160dp"
  android:textStyle="bold"
  android:text="Book Name"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtBooktitle"
  android:layout width="222dp"
  android:layout_height="39dp"
  android:layout marginStart="120dp"
  android:layout marginTop="155dp"
  android:ems="10"
  android:textStyle="bold"
  android:inputType="textPersonName"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout_constraintTop_toTopOf="parent" />
<TextView
```



```
android:id="@+id/txtpub"
  android:layout width="107dp"
  android:layout height="39dp"
  android:layout marginStart="15dp"
  android:layout marginTop="216dp"
  android:textStyle="bold"
  android:text="Publisher"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtpublishername"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="120dp"
  android:layout marginTop="211dp"
  android:textStyle="bold"
  android:ems="10"
  android:inputType="textPersonName"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtauthorname"
  android:layout width="107dp"
  android:layout height="39dp"
  android:layout marginStart="15dp"
  android:layout marginTop="268dp"
  android:textStyle="bold"
  android:text="Author"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtauthorname2"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="120dp"
  android:layout_marginTop="264dp"
  android:textStyle="bold"
  android:ems="10"
```



```
android:inputType="textPersonName"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtbranchname"
  android:layout width="107dp"
  android:layout height="39dp"
  android:layout marginStart="15dp"
  android:layout marginTop="320dp"
  android:textStyle="bold"
  android:text="Branch"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtaddbranchname"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="120dp"
  android:layout marginTop="315dp"
  android:textStyle="bold"
  android:ems="10"
  android:inputType="textPersonName"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  app:layout_constraintStart_toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<Button
  android:id="@+id/btndelete"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="140dp"
  android:layout marginTop="508dp"
  android:background="@color/colorPrimaryDark"
  android:text="Clear"
  android:textColor="@android:color/white"
  android:textStyle="bold"
  app:layout_constraintStart_toStartOf="parent"
  app:layout_constraintTop_toTopOf="parent" />
<Button
```



```
android:layout marginStart="140dp"
    android:layout marginTop="424dp"
    android:background="@color/colorPrimaryDark"
    android:text="Add"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <Button
    android:id="@+id/btnback3"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="140dp"
    android:layout marginTop="596dp"
    android:background="@color/colorPrimaryDark"
    android:text="Back"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
          activity_manage_branch.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:alpha="0.9"
  android:background="@drawable/library1"
  tools:context=".ManageBranch">
  <TextView
    android:id="@+id/textView6"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout_marginStart="76dp"
    android:layout marginTop="28dp"
```

android:id="@+id/btnbookadd"

android:layout_width="wrap_content"
android:layout height="wrap content"



```
android:text="Manage Branch"
  android:textColor="@color/ic launcher background"
  android:textSize="30sp"
  android:textStyle="bold"
  app:fontFamily="monospace"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtbrach"
  android:layout width="96dp"
  android:layout height="36dp"
  android:layout marginStart="15dp"
  android:layout marginTop="100dp"
  android:textStyle="bold"
  android:text="Branch ID"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout_constraintStart_toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtBrachId"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="120dp"
  android:layout marginTop="95dp"
  android:textStyle="bold"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:inputType="textPersonName"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtbrach1"
  android:layout width="96dp"
  android:layout height="36dp"
  android:layout marginStart="15dp"
  android:layout marginTop="168dp"
  android:textStyle="bold"
  android:text="Name"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
```



```
<EditText
  android:id="@+id/txtBrachName"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="120dp"
  android:layout marginTop="163dp"
  android:textStyle="bold"
  android:ems="10"
  android:inputType="textPersonName"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtbrach2"
  android:layout width="96dp"
  android:layout height="36dp"
  android:layout marginStart="15dp"
  android:layout marginTop="248dp"
  android:textStyle="bold"
  android:text="Address"
  android:textColor="@color/ic_launcher_background"
  android:textSize="20sp"
  app:layout_constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtbranchadd"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="120dp"
  android:layout marginTop="243dp"
  android:ems="10"
  android:inputType="textPersonName"
  android:textStyle="bold"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<Button
  android:id="@+id/btnBranchAdd"
  android:layout_width="wrap_content"
  android:layout height="wrap content"
  android:layout marginStart="136dp"
```



```
android:layout marginTop="352dp"
    android:background="@color/colorPrimaryDark"
    android:text="Add"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <Button
    android:id="@+id/btnBrachDelete"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout_marginStart="136dp"
    android:layout marginTop="436dp"
    android:background="@color/colorPrimaryDark"
    android:text="Clear"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <Button
    android:id="@+id/btnback5"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="136dp"
    android:layout marginTop="520dp"
    android:background="@color/colorPrimaryDark"
    android:text="Back"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

activity manage publisher.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
   xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:app="http://schemas.android.com/apk/res-auto"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:background="@drawable/library1"</pre>
```



```
android:alpha="0.9"
tools:context=".ManagePublisher">
<TextView
  android:id="@+id/textView6"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="72dp"
  android:layout marginTop="24dp"
  android:text="Manage Publisher"
  android:textColor="@color/ic launcher background"
  android:textSize="30sp"
  android:textStyle="bold"
  app:fontFamily="monospace"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtpubname"
  android:layout width="96dp"
  android:layout height="36dp"
  android:layout marginStart="25dp"
  android:layout marginTop="100dp"
  android:textStyle="bold"
  android:text="Name"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout_constraintStart_toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtPubName"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="120dp"
  android:layout_marginTop="95dp"
  android:textStyle="bold"
  android:ems="10"
  android:inputType="textPersonName"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtaddpub"
  android:layout width="96dp"
```



```
android:layout height="36dp"
  android:layout marginStart="25dp"
  android:layout marginTop="176dp"
  android:textStyle="bold"
  android:text="Address"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtpublisheradd"
  android:layout width="222dp"
  android:layout height="39dp"
  android:layout marginStart="120dp"
  android:layout marginTop="171dp"
  android:textStyle="bold"
  android:ems="10"
  android:inputType="textPersonName"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtpubphone"
  android:layout width="96dp"
  android:layout height="36dp"
  android:layout marginStart="25dp"
  android:layout marginTop="256dp"
  android:textStyle="bold"
  android:text="Phone"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout_constraintTop_toTopOf="parent" />
<EditText
  android:id="@+id/txtpubcontact"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="120dp"
  android:layout marginTop="245dp"
  android:textStyle="bold"
  android:ems="10"
  android:inputType="phone"
  android:backgroundTint="@color/ic launcher background"
```



```
android:textColor="#FBFBFB"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <Button
    android:id="@+id/btnaddpub"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="140dp"
    android:layout marginTop="364dp"
    android:background="@color/colorPrimaryDark"
    android:text="Add"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <Button
    android:id="@+id/btndeletepub"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="140dp"
    android:layout marginTop="452dp"
    android:background="@color/colorPrimaryDark"
    android:text="Clear"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <Button
    android:id="@+id/btnback4"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout_marginStart="140dp"
    android:layout_marginTop="548dp"
    android:background="@color/colorPrimaryDark"
    android:text="Back"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```



· activity member login.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
  xmlns:android="http://schemas.android.com/apk/res/android"
  xmlns:app="http://schemas.android.com/apk/res-auto"
  xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
  android:layout height="match parent"
  android:background="@drawable/library3"
  android:alpha="0.9"
  tools:context=".MemberLogin">
  <TextView
    android:id="@+id/textView6"
    android:layout width="wrap content"
    android:layout_height="wrap content"
    android:layout marginStart="96dp"
    android:layout marginTop="40dp"
    android:text="Member Login"
    android:textColor="@color/ic launcher background"
    android:textSize="30sp"
    android:textStyle="bold"
    app:fontFamily="monospace"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <TextView
    android:id="@+id/txtuname2"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="50dp"
    android:layout marginTop="156dp"
    android:text="Username"
    android:textColor="@color/ic launcher background"
    android:textSize="20sp"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <TextView
    android:id="@+id/txtpassword2"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="50dp"
    android:layout_marginTop="296dp"
    android:text="Password"
```



```
android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  android:textStyle="bold"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtUserName2"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="90dp"
  android:layout marginTop="200dp"
  android:textStyle="bold"
  android:ems="10"
  android:inputType="textPersonName"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout_constraintTop_toTopOf="parent" />
<EditText
  android:id="@+id/txtpass2"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="90dp"
  android:layout marginTop="356dp"
  android:textStyle="bold"
  android:ems="10"
  android:inputType="textPassword"
  android:backgroundTint="@color/ic launcher background"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<Button
  android:id="@+id/login2"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="140dp"
  android:layout_marginTop="480dp"
  android:background="@color/colorPrimaryDark"
  android:text="Login"
  android:textColor="@android:color/white"
  android:textStyle="bold"
  app:layout_constraintStart_toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
```



```
<Button
    android:id="@+id/btnback2"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="140dp"
    android:layout marginTop="576dp"
    android:background="@color/colorPrimaryDark"
    android:text="Back"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
         activity member menu.xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
  xmlns:android="http://schemas.android.com/apk/res/android"
  xmlns:app="http://schemas.android.com/apk/res-auto"
  xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
  android:layout height="match parent"
  android:background="@drawable/library3"
  android:alpha="0.9"
  tools:context=".MemberMenu">
  <TextView
    android:id="@+id/textView6"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Member Menu"
    android:textColor="@color/ic launcher_background"
    android:textSize="30sp"
    android:textStyle="bold"
    app:fontFamily="monospace"
    app:layout constraintBottom toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.162" />
```

<Button

android:id="@+id/btnsearchbooks" android:layout width="280dp"

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```
android:layout height="49dp"
    android:layout marginStart="36dp"
    android:layout marginTop="244dp"
    android:background="@color/colorPrimaryDark"
    android:text="Search Books"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <Button
    android:id="@+id/btnmemberlogout"
    android:layout width="100dp"
    android:layout height="49dp"
    android:layout marginStart="216dp"
    android:layout marginTop="444dp"
    android:background="@color/colorPrimaryDark"
    android:text="Logout"
    android:textColor="@android:color/white"
    android:textStyle="bold"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
         activity_search_books.xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  android:layout width="match parent"
  android:layout height="match parent"
  android:background="@drawable/library4"
  android:orientation="vertical">
  <TextView
    android:id="@+id/textView"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:textStyle="bold"
    android:textColorHint="@android:color/black"
    android:textColor="@android:color/black" />
  <LinearLayout
    android:layout width="match parent"
    android:layout height="wrap content"
    android:orientation="horizontal">
```



```
android:id="@+id/searchEditText"
    android:layout width="0dp"
    android:textColor="@android:color/black"
    android:textColorHint="@android:color/black"
    android:layout height="wrap content"
    android:layout weight="1"
    android:hint="Search Books Details"
    android:inputType="text" />
  <Button
    android:id="@+id/searchButton"
    android:textStyle="bold"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Search" />
</LinearLayout>
<LinearLayout
  android:layout width="match parent"
  android:layout height="wrap content"
  android:orientation="horizontal">
  <Button
    android:id="@+id/backButton"
    android:textStyle="bold"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Back to Member Menu" />
  <Button
    android:id="@+id/refreshButton"
    android:textStyle="bold"
    android:layout_width="wrap_content"
    android:layout height="wrap content"
    android:layout marginStart="20dp"
    android:text="Refresh Page" />
</LinearLayout>
<ListView
  android:id="@+id/listView"
  android:textStyle="bold"
  android:textColor="@android:color/black"
  android:textColorHint="@android:color/black"
  android:divider="#000000"
```

<EditText



```
android:dividerHeight="8px"
android:layout_width="match_parent"
android:layout_height="wrap_content" />
</LinearLayout>
```

• activity_signup.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
  xmlns:android="http://schemas.android.com/apk/res/android"
  xmlns:app="http://schemas.android.com/apk/res-auto"
  xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
  android:layout height="match parent"
  android:background="@drawable/library2"
  android:alpha="0.9"
  tools:context=".Signup">
  <EditText
    android:id="@+id/txtaddress"
    android:layout width="220dp"
    android:layout height="41dp"
    android:layout marginStart="125dp"
    android:layout marginTop="318dp"
    android:backgroundTint="@color/ic launcher background"
    android:ems="10"
    android:inputType="textPersonName"
    android:textColor="#FBFBFB"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <TextView
    android:id="@+id/txtadd"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="25dp"
    android:layout marginTop="328dp"
    android:text="Address"
    android:textColor="@color/ic launcher background"
    android:textSize="20sp"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent" />
  <EditText
```

android:id="@+id/txtFirstName"



```
android:layout width="216dp"
  android:layout height="43dp"
  android:layout marginStart="125dp"
  android:layout marginTop="82dp"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:inputType="textPersonName"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtContact"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="25dp"
  android:layout marginTop="212dp"
  android:text="Contact"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout_constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtEmailAdd"
  android:layout width="220dp"
  android:layout height="42dp"
  android:layout marginStart="125dp"
  android:layout marginTop="266dp"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:inputType="textEmailAddress"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtFName"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="25dp"
  android:layout marginTop="92dp"
  android:text="First Name"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
```



```
<TextView
 android:id="@+id/txtFLame"
 android:layout width="wrap content"
 android:layout height="wrap content"
 android:layout marginStart="25dp"
 android:layout marginTop="156dp"
 android:text="Last Name"
 android:textColor="@color/ic launcher background"
 android:textSize="20sp"
 app:layout constraintStart toStartOf="parent"
 app:layout constraintTop toTopOf="parent" />
<EditText
 android:id="@+id/txtPhone"
 android:layout width="217dp"
 android:layout height="43dp"
 android:layout marginStart="125dp"
 android:layout marginTop="202dp"
 android:backgroundTint="@color/ic launcher background"
 android:ems="10"
 android:inputType="phone"
 android:textColor="#FBFBFB"
 app:layout constraintStart toStartOf="parent"
 app:layout_constraintTop_toTopOf="parent" />
<EditText
 android:id="@+id/txtLastName"
 android:layout width="219dp"
 android:layout height="42dp"
 android:layout_marginStart="125dp"
 android:layout marginTop="147dp"
 android:backgroundTint="@color/ic launcher background"
 android:ems="10"
 android:inputType="textPersonName"
 android:textColor="#FBFBFB"
 app:layout constraintStart toStartOf="parent"
 app:layout constraintTop toTopOf="parent" />
<TextView
 android:id="@+id/txtemail"
 android:layout width="wrap content"
 android:layout height="wrap content"
 android:layout_marginStart="25dp"
 android:layout_marginTop="276dp"
 android:text="Email"
 android:textColor="@color/ic launcher background"
```



```
android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/textView5"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="88dp"
  android:layout marginTop="24dp"
  android:text="Member Singup"
  android:textColor="@color/ic launcher background"
  android:textSize="30sp"
  android:textStyle="bold"
  app:fontFamily="monospace"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtUserName"
  android:layout width="214dp"
  android:layout height="45dp"
  android:layout marginStart="125dp"
  android:layout marginTop="376dp"
  android:textStyle="bold"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:inputType="textPersonName"
  android:textColor="#FBFBFB"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<Button
  android:id="@+id/btnSignUpS"
  android:layout width="wrap content"
  android:layout_height="wrap_content"
  android:background="@color/colorPrimaryDark"
  android:text="Signup"
  android:textColor="@android:color/white"
  android:textStyle="bold"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toBottomOf="@+id/txtpass"
  app:layout_constraintVertical_bias="0.24" />
<TextView
```



```
android:id="@+id/txtuname"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="25dp"
  android:layout marginTop="384dp"
  android:textStyle="bold"
  android:text="Username"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/txtpassword"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="25dp"
  android:layout marginTop="440dp"
  android:textStyle="bold"
  android:text="Password"
  android:textColor="@color/ic launcher background"
  android:textSize="20sp"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<EditText
  android:id="@+id/txtpass"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="125dp"
  android:layout marginTop="430dp"
  android:textStyle="bold"
  android:backgroundTint="@color/ic launcher background"
  android:ems="10"
  android:textColor="#FBFBFB"
  app:layout_constraintStart_toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<Button
  android:id="@+id/btnback"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:background="@color/colorPrimaryDark"
  android:text="Back"
  android:textColor="@android:color/white"
  android:textStyle="bold"
  app:layout constraintBottom toBottomOf="parent"
```



```
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/txtpass"
app:layout_constraintVertical_bias="0.649" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

• menu.xml

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto">
    <item
        android:id="@+id/action_search"
        android:title="Search"
        android:textColor="#FFFFFF"
        android:divider="#000000"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:icon="@drawable/ic_action_search_foreground"
        app:showAsAction="ifRoom|collapseActionView"
        app:actionViewClass="android.widget.SearchView"/>
</menu>
```

• ic_launcher_background.xml

• ic_action_search_foreground.xml

```
<vector xmlns:android="http://schemas.android.com/apk/res/android"
    android:width="108dp"
    android:height="108dp"
    android:viewportWidth="41.37931"
    android:viewportHeight="41.37931"
    android:tint="#FFFFFF">
    <group android:translateX="8.689655"
        android:translateY="8.689655">
        <path</pre>
```



```
android:fillColor="#FFFFFFF"
android:pathData="M15.5,14h-0.79l-0.28,-0.27C15.41,12.59 16,11.11 16,9.5 16,5.91 13.09,3 9.5,3S3,5.91 3,9.5 5.91,16 9.5,16c1.61,0 3.09,-0.59 4.23,-
1.57l0.27,0.28v0.79l5,4.99L20.49,19l-4.99,-5zM9.5,14C7.01,14 5,11.99 5,9.5S7.01,5 9.5,5 14,7.01 14,9.5 11.99,14 9.5,14z"/>
</group>
</vector>
```

• list item.xml

```
<?xml version="1.0" encoding="utf-8"?>
<TextView xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/list_item_text"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:textStyle="bold"
    android:textColorHint="@android:color/black"
    android:textColor="@android:color/black"/>
```

AndroidMainfest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  package="com.assignment7 mit3206 22550119"
 xmlns:tools="http://schemas.android.com/tools">
  <uses-permission android:name="android.permission.INTERNET" />
  <uses-feature android:name="android.hardware.touchscreen" />
  <application
    android:allowBackup="true"
    android:dataExtractionRules="@xml/data extraction rules"
    android:fullBackupContent="@xml/backup rules"
    android:icon="@mipmap/ic launcher"
    android:label="@string/app name"
    android:roundlcon="@mipmap/ic launcher round"
    android:supportsRtl="true"
    android:theme="@style/Theme.Assignment7MIT320622550119"
    tools:targetApi="34">
    <activity android:name=".SearchBooks" />
    <activity android:name=".Lending"/>
    <activity android:name=".ManageBranch" />
    <activity android:name=".ManagePublisher" />
```



```
<activity android:name=".ManageBooks" />
    <activity android:name=".MemberMenu" />
    <activity android:name=".MemberLogin" />
    <activity android:name=".AdminLogin" />
    <activity android:name=".Signup" />
    <activity android:name=".AdminMenu" />
    <activity
      android:name=".MainActivity"
      android:exported="true">
      <intent-filter>
        <action android:name="android.intent.action.MAIN" />
        <category android:name="android.intent.category.LAUNCHER" />
      </intent-filter>
    </activity>
  </application>
</manifest>
```

Drawable



Library



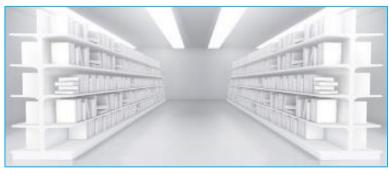
Library1



Library2



Library3



library4