

Course Module: MIT3206 - Mobile Computing

Course Lecturer : Senior Lecturer Gihan P. Seneviratne Sir

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

Used Android Studio: Android Studio Koala | 2024.1.1

GitHub Private Repository Link :

https://github.com/NavinduMadusanka/Assignment7-MIT3206-22550119.git

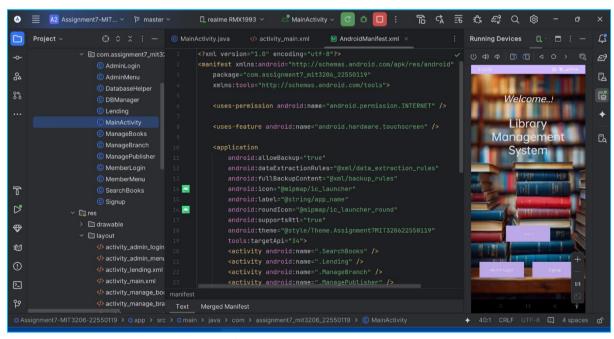
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Assignment7-MIT3206-22550119



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

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

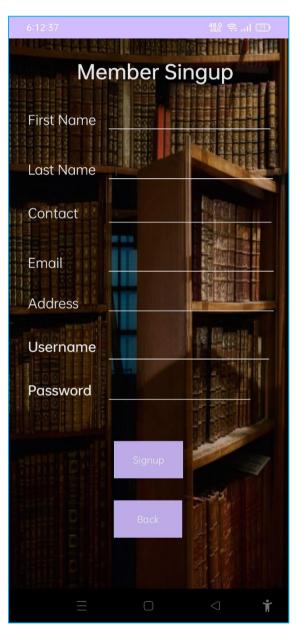


Photo 2 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993





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

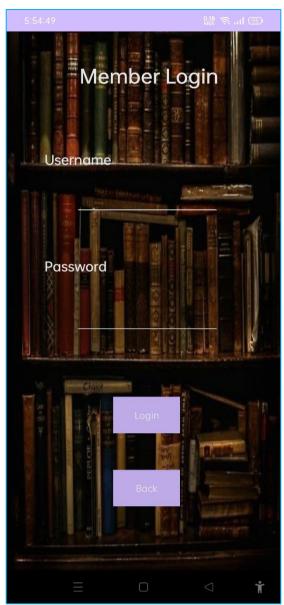


Photo 4 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



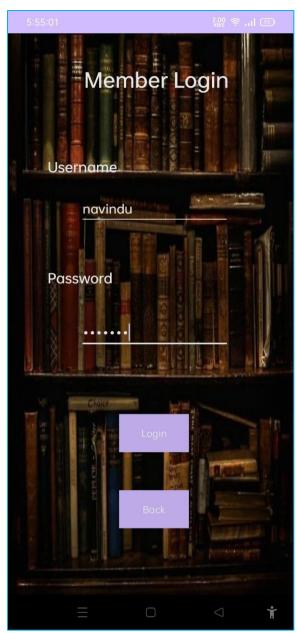


Photo 5 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



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



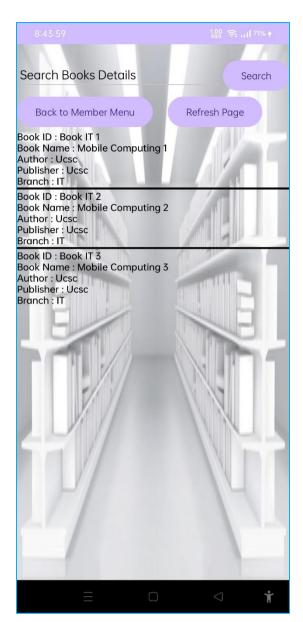


Photo 7 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993

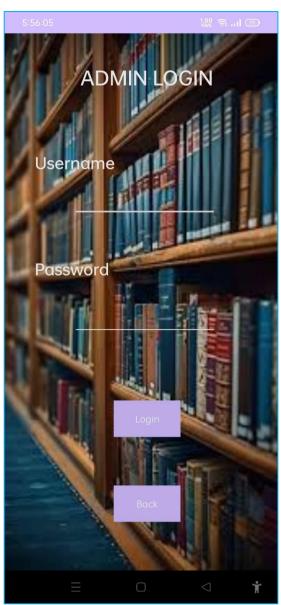


Photo 8 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



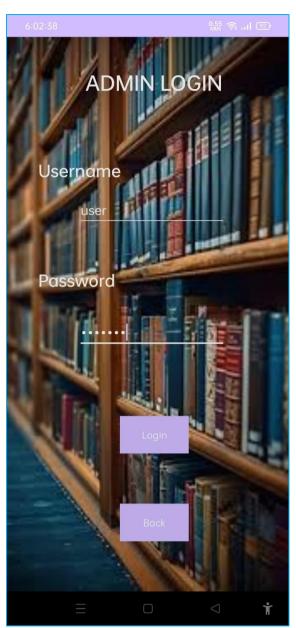


Photo 9 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993



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





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

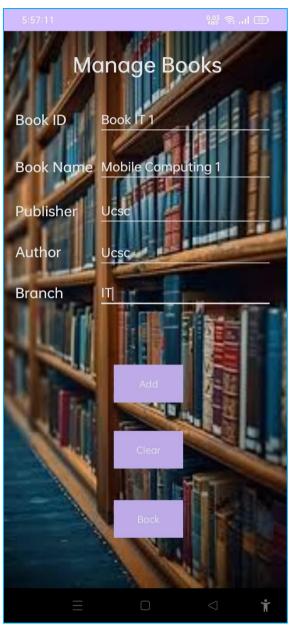


Photo 12 : Assignment7-MIT3206-22550119 in Realme X2 RMX1993





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



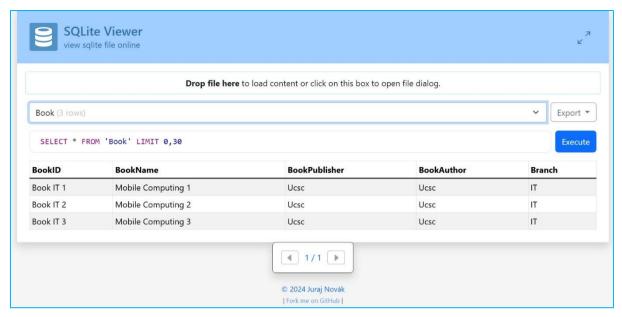


Photo 18: Assignment7-MIT3206-22550119-DatabaseBook in Realme X2 RMX1993

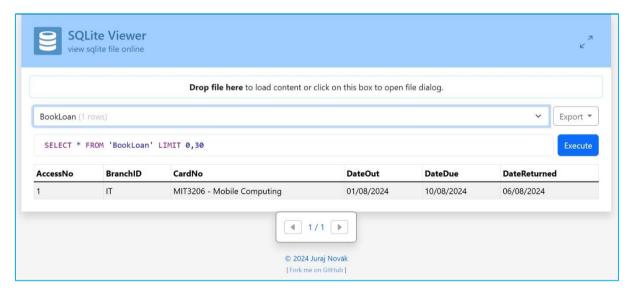


Photo 19: Assignment7-MIT3206-22550119-DatabaseBookLoan in Realme X2 RMX1993



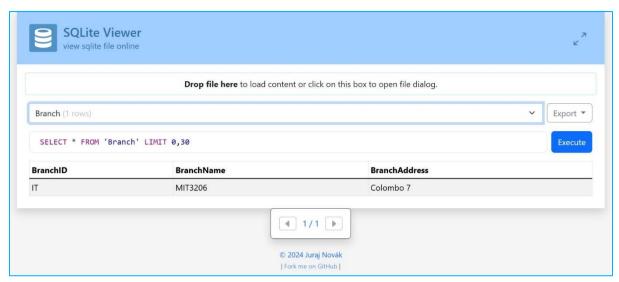


Photo 20: Assignment7-MIT3206-22550119-DatabaseBranch in Realme X2 RMX1993

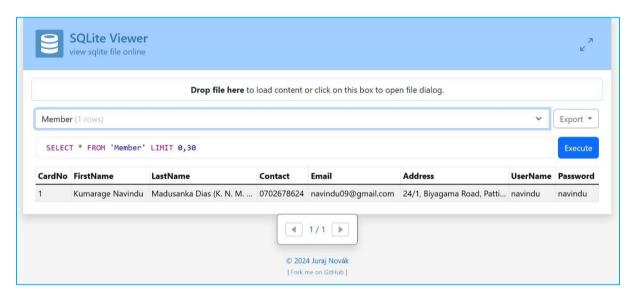


Photo 21: Assignment7-MIT3206-22550119-DatabaseMember in Realme X2 RMX1993

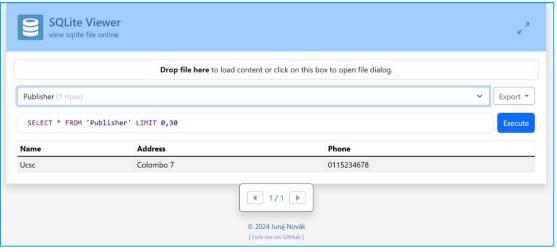


Photo 22: Assignment7-MIT3206-22550119-DatabasePublisher in Realme X2 RMX1993



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