EXP 8 LIBRARY MANAGEMENT SYSTEM

ℰ AIM

To develop a **Library Management System** using **Android Studio** that allows users to enter book details, validates the inputs on the frontend, and displays a cute success message upon submission. The app uses a beautiful UI and ensures input correctness without connecting to a backend.

□ ALGORITHM

- 1. Start the Application.
- 2. Display the **book entry form** with fields:

Book Name, Author, ISBN, and Category.

- 3. Wait for the user to **enter the details**.
- 4. On Submit Button Click:
 - Check if all fields are filled.
 - o If any field is empty, show a **toast message**: "Please fill all fields".
 - o If all fields are valid:
 - Display a big "Book Added Successfully" message.
- 5. End.

☎ CODE STRUCTURE

✓ MainActivity.kt

```
kotlin
CopyEdit
package com.example.calci
import android.os.Bundle
import android.widget.*
import androidx.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

    val bookName = findViewById<EditText>(R.id.bookName)
    val author = findViewById<EditText>(R.id.author)
    val isbn = findViewById<EditText>(R.id.isbn)
    val category = findViewById<EditText>(R.id.category)
```

```
val submitBtn = findViewById<Button>(R.id.submitBtn)
        val message = findViewById<TextView>(R.id.successMessage)
        submitBtn.setOnClickListener {
            val bName = bookName.text.toString().trim()
            val auth = author.text.toString().trim()
            val isbnCode = isbn.text.toString().trim()
            val cat = category.text.toString().trim()
            if (bName.isEmpty() || auth.isEmpty() || isbnCode.isEmpty() ||
cat.isEmpty()) {
                Toast.makeText(this, "Please fill all fields",
Toast.LENGTH SHORT).show()
            } else {
                message.text = "\uD83D\uDCDA Book Added Successfully!"
                message.visibility = TextView.VISIBLE
            }
        }
   }
}
```

□ activity_main.xml

```
xm1
CopyEdit
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:padding="24dp"
    android:gravity="center"
    android:background="@color/pink bg"
    android:layout width="match parent"
    android:layout height="match parent">
    <TextView
        android:text="☎ Library Book Entry"
        android:textSize="26sp"
        android:textColor="@color/deep pink"
        android:layout marginBottom="24dp"
        android:textStyle="bold"
        android:layout_gravity="center"
        android:layout_width="wrap_content"
        android:layout_height="wrap content" />
    <EditText
        android:id="@+id/bookName"
        android:hint="Book Name"
        android:background="@drawable/input bg"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
    <EditText
        android:id="@+id/author"
        android:hint="Author Name"
        android:background="@drawable/input bg"
        android:layout marginTop="10dp"
        android:layout width="match parent"
        android:layout height="wrap content" />
```

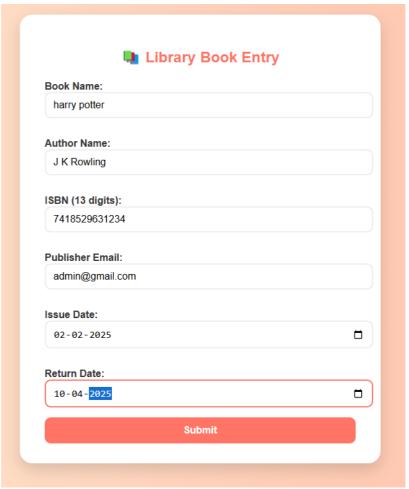
```
<EditText
        android:id="@+id/isbn"
        android:hint="ISBN"
        android:background="@drawable/input bg"
        android:layout_marginTop="10dp"
        android:layout width="match parent"
        android:layout height="wrap content" />
    <EditText
        android:id="@+id/category"
        android:hint="Category"
        android:background="@drawable/input bg"
        android:layout_marginTop="10dp"
        android:layout width="match parent"
        android:layout height="wrap content" />
    <Button
        android:id="@+id/submitBtn"
        android:text="Submit"
        android:layout marginTop="16dp"
        android:backgroundTint="@color/deep pink"
        android:textColor="#fff"
        android:layout width="match parent"
        android:layout height="wrap content" />
    <TextView
        android:id="@+id/successMessage"
        android:text=""
        android:textSize="22sp"
        android:gravity="center"
        android:textStyle="bold"
        android:textColor="@color/success green"
        android:layout_marginTop="18dp"
        android: visibility="gone"
        android:layout width="match parent"
        android:layout height="wrap content"/>
</LinearLayout>
```

% colors.xml

jinput_bg.xml (drawable folder)

```
xml
CopyEdit
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">
        <solid android:color="#FFFFFF"/>
        <corners android:radius="16dp"/>
```

OUTPUT:





≪ RESULT

When the user fills in all the fields and presses **Submit**, the screen displays:

Book Added Successfully!

With cute pink background, rounded input fields, toast messages for empty fields, and success UI.