

EXP 8 LIBRARY MANAGEMENT SYSTEM

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. ○ If any field is empty, show a **toast message**: “Please fill all fields”.
 - 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

```

xml
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="\ud83d\udcda 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

```

xml CopyEdit
<resources>
    <color name="pink_bg">#FFF0F5</color>
    <color name="deep_pink">#FF1493</color>
    <color name="success_green">#228B22</color>
</resources>

```

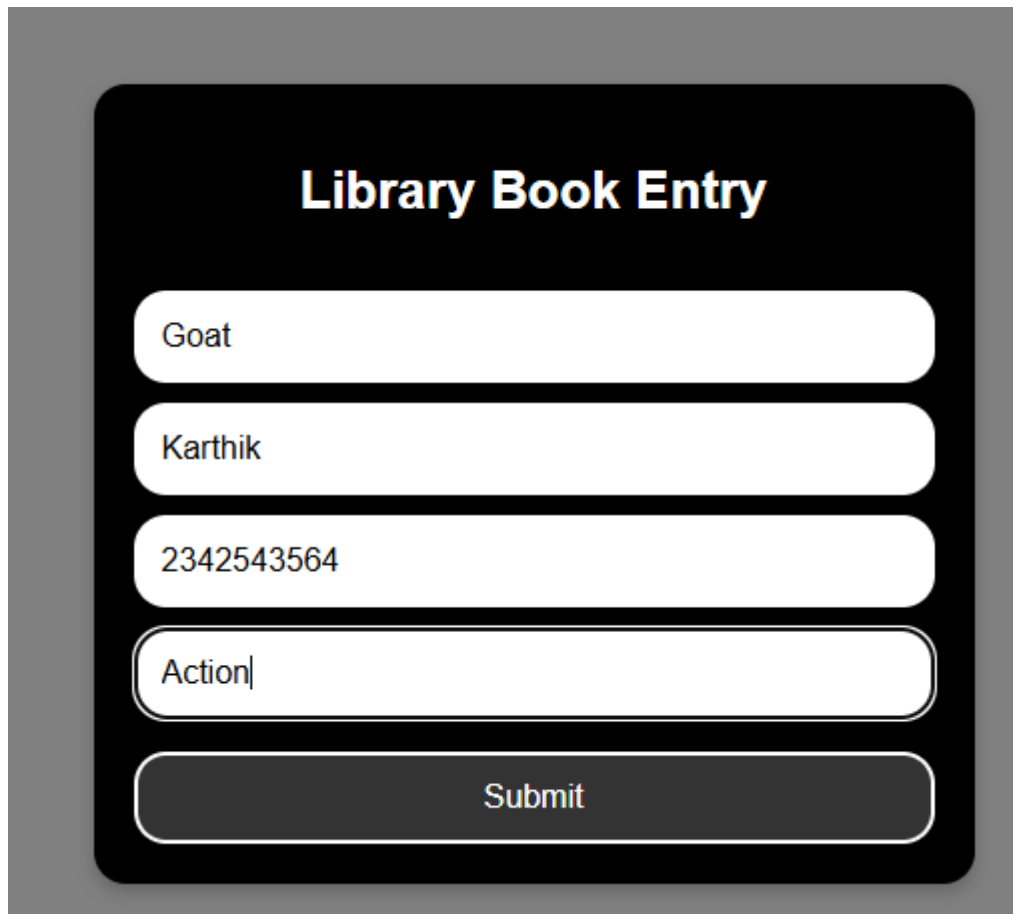
input_bg.xml (drawable folder)

```

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

```

```
<stroke android:width="2dp" android:color="#FFB6C1"/>
<padding android:left="12dp" android:right="12dp"/>
</shape>
```

A screenshot of an Android application interface titled "Library Book Entry". The form is set against a dark blue background with rounded corners. It contains five white, rounded rectangular input fields. The first field contains the text "Goat", the second "Karthik", and the third "2342543564". The fourth field contains the text "Action|". Below the input fields is a dark blue button with the text "Submit" in white. The entire form is centered on a light gray background.

✓ 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.