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
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
<?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/green_bg"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <TextView
        android:text="☎ Library Book Entry"
        android:textSize="26sp"
        android:textColor="@color/deep_green"
        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"
```

```xml
            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_green"
            android:textColor="@color/white"
            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
<resources>
    <color name="green_bg">#E6F4EA</color> <!-- light green background -->
    <color name="deep_green">#2E8B57</color> <!-- deep sea green -->
    <color name="success_green">#228B22</color> <!-- forest green -->
    <color name="white">#FFFFFF</color>
    <color name="input_border_green">#8FBC8F</color> <!-- dark sea green -->
</resources>
```

🎨 input_bg.xml (drawable folder)

```xml
<shape xmlns:android="http://schemas.android.com/apk/res/android" android:shape="rectangle">
    <solid android:color="@color/white"/>
    <corners android:radius="16dp"/>
    <stroke android:width="2dp" android:color="@color/input_border_green"/>
    <padding android:left="12dp" android:right="12dp"/>
</shape>
```
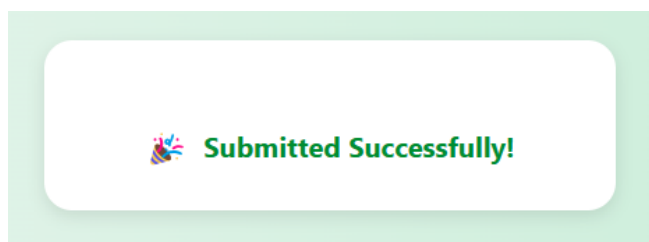
OUTPUT:

✅ 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.