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="📖 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" />
```

```xml
    <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
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
xml
CopyEdit
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">
    <solid android:color="#FFFFFF"/>
    <corners android:radius="16dp"/>
```
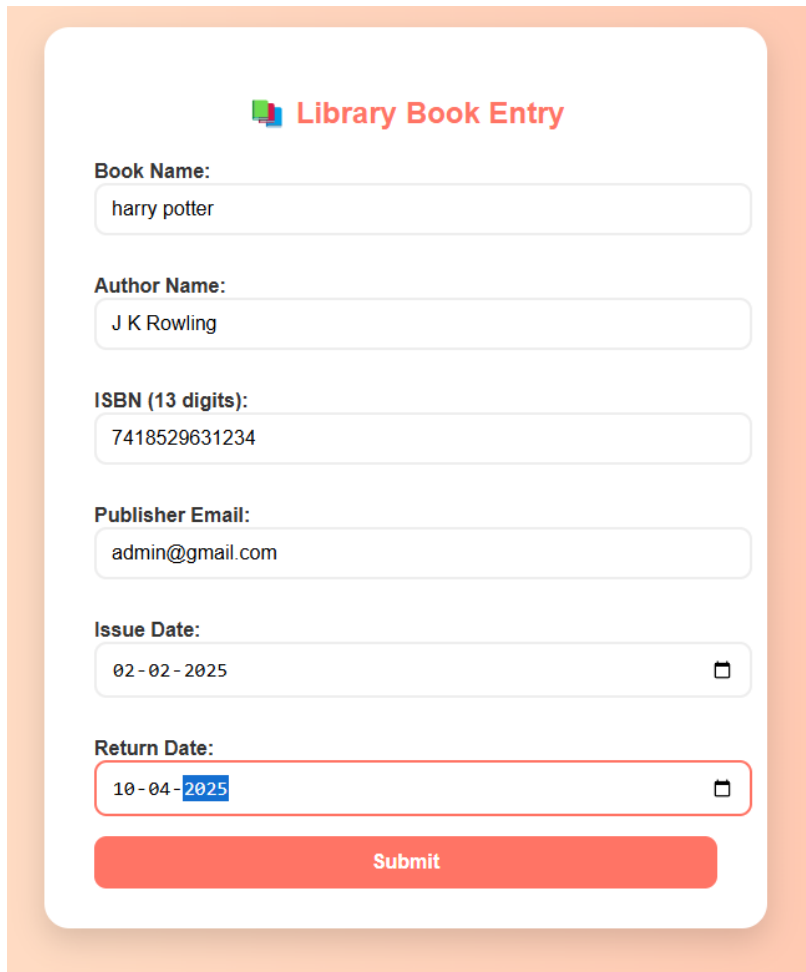
```
    <stroke android:width="2dp" android:color="#FFB6C1"/>
    <padding android:left="12dp" android:right="12dp"/>
</shape>
```
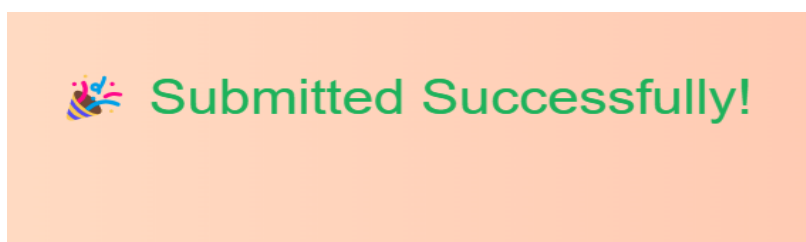
OUTPUT:

✅ 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.