**WEB TECHNOLOGY AND MOBILE APPLICATIONS**

**EXPERIMENT-8**

**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:

o 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:**

**activity\_main.xml**

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:orientation="vertical"

android:padding="24dp"

android:gravity="center"

android:background="#F2F6FF"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<TextView

android:text="📚 Add a Book"

android:textSize="24sp"

android:textStyle="bold"

android:layout\_marginBottom="20dp"

android:textColor="#333"

android:layout\_gravity="center" />

<EditText

android:id="@+id/bookTitle"

android:hint="Book Title"

android:background="@drawable/edittext\_bg"

android:padding="12dp"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content" />

<EditText

android:id="@+id/author"

android:hint="Author"

android:background="@drawable/edittext\_bg"

android:padding="12dp"

android:layout\_marginTop="12dp"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content" />

<EditText

android:id="@+id/isbn"

android:hint="ISBN"

android:inputType="number"

android:background="@drawable/edittext\_bg"

android:padding="12dp"

android:layout\_marginTop="12dp"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content" />

<EditText

android:id="@+id/genre"

android:hint="Genre"

android:background="@drawable/edittext\_bg"

android:padding="12dp"

android:layout\_marginTop="12dp"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content" />

<Button

android:id="@+id/submitButton"

android:text="Add Book 📘"

android:layout\_marginTop="20dp"

android:backgroundTint="#4CAF50"

android:textColor="#fff"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content" />

</LinearLayout>

**MainActivity.java**

package com.example.libraryapp;

import android.os.Bundle;

import android.widget.\*;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

EditText bookTitle, author, isbn, genre;

Button submitButton;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

bookTitle = findViewById(R.id.bookTitle);

author = findViewById(R.id.author);

isbn = findViewById(R.id.isbn);

genre = findViewById(R.id.genre);

submitButton = findViewById(R.id.submitButton);

submitButton.setOnClickListener(v -> {

String title = bookTitle.getText().toString().trim();

String auth = author.getText().toString().trim();

String bookIsbn = isbn.getText().toString().trim();

String bookGenre = genre.getText().toString().trim();

if (title.isEmpty() || auth.isEmpty() || bookIsbn.isEmpty() || bookGenre.isEmpty()) {

Toast.makeText(this, "Please fill all fields 📝", Toast.LENGTH\_SHORT).show();

return;

}

if (!bookIsbn.matches("\\d{10}|\\d{13}")) {

Toast.makeText(this, "Invalid ISBN (10 or 13 digits) ❗", Toast.LENGTH\_SHORT).show();

return;

}

// Success Message 🎉

Toast.makeText(this, "Book added successfully! 📚✨", Toast.LENGTH\_LONG).show();

// Clear fields

bookTitle.setText("");

author.setText("");

isbn.setText("");

genre.setText("");

});

}

}

**OUTPUT:**

