

Report No: 03

Task Title: Convert the single-activity app in Lab 2 to Double Activity App

Course Title: Mobile Application Development Laboratory

Course Code: CSE-410

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GitHub Link: <https://github.com/shanjida-alam/Double-Activity-App>

activity_main.xml code:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    android:orientation="vertical"
    android:gravity="center"
    tools:context=".MainActivity"
    android:id="@+id/main">

    <TextView
        android:id="@+id/appNameTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="16dp"
        android:text="@string/app_name"
        android:textAlignment="center"
        android:textSize="24sp"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/book_type"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="16dp"
        android:text="@string/book_type"
        android:textSize="24sp"
        android:textStyle="bold"
        android:layout_gravity="center_horizontal"
        android:textAlignment="center"/>

    <Spinner
        android:id="@+id/BookSpinner"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="40dp"
        android:layout_gravity="center_horizontal"
        android:layout_margin="16dp"
        android:entries="@array/menu"/>

    <Button
        android:id="@+id/find_book"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center_horizontal"
        android:layout_margin="16dp"
        android:text="@string/find_book"
        android:onClick="onSendMessage"/>

</LinearLayout>
```

strings.xml code:

```
<resources>
    <string name="app_name">My Book Shop</string>
    <string name="book_type">Choose the book category</string>
    <string name="send">Send Message</string>
    <string name="hint">Enter a message</string>
    <string name="find_book">Select Book</string>
    <string name="this_is_a_text_view_string_brands">This is a text
view@string/brands</string>
    <string name="brands">Book</string>
    <string-array name="menu">
        <item>Fiction </item>
        <item>Non-fiction </item>
        <item>Science Fiction </item>
    </string-array>
</resources>
```

activity_second.xml code:

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:id="@+id/main"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".SecondActivity">

    <TextView
        android:id="@+id/AppNameTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/app_name"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.015"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.005" />

    <TextView
        android:id="@+id/MenuTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/brands"
        android:textColor="#000000"
        android:textSize="18sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.21" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java code:

```
package com.example.lab03doubleactivityapp;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Spinner;
import android.widget.TextView;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
(v, insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
    }

    public void onSendMessage(View view) {
        Spinner BookSpinner = (Spinner) findViewById(R.id.BookSpinner);
        String SelectedBook = String.valueOf(BookSpinner.getSelectedItem());
        Intent intent = new Intent(this, SecondActivity.class);
        intent.putExtra("message", SelectedBook);
        startActivity(intent);
    }
}
```

SecondActivity.java Code:

```
package com.example.lab03doubleactivityapp;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Spinner;
import android.widget.TextView;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

import java.util.List;

public class SecondActivity extends AppCompatActivity {
    public static final String EXTRA_MESSAGE = "message";

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_second);

        Intent intent = getIntent();
        String messageText = intent.getStringExtra(EXTRA_MESSAGE);
        TextView messageView = (TextView) findViewById(R.id.MenuTextView);
        messageView.setText(messageText);

        TextView MenuTextView = (TextView) findViewById(R.id.MenuTextView);

        BookExpert f = new BookExpert();
        List<String> BookList = f.getBook(messageText);

        StringBuilder bookFormatted = new StringBuilder();
        for(String book : BookList){
            bookFormatted.append(book).append("\n");
        }
        MenuTextView.setText(bookFormatted);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main),
(v, insets) -> {
            Insets systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom);
            return insets;
        });
    }
}
```

BookExpert.java Code:

```
package com.example.lab03doubleactivityapp;

import java.util.ArrayList;
import java.util.List;

public class BookExpert {
    public List<String> getBook(String Category) {
        List<String> Books = new ArrayList<>();
        if (Category.equals("Fiction")) {
            Books.add("List of Fiction Books:\n");
            Books.add("1. The Alchemist");
            Books.add("2. The Kite Runner");
            Books.add("3. Harry Potter");
        }
        else if (Category.equals("Non-fiction")) {
            Books.add("List of Non-Fiction Books:\n");
            Books.add("1.In Cold Blood");
            Books.add("2.Into Thin Air");
            Books.add("3.The Diary of a Young Girl");
        }
        else if (Category.equals("Science Fiction")) {
            Books.add("List of Science Fiction Books:\n");
            Books.add("1. The Martian");
            Books.add("2. Brave New World");
            Books.add("3. Fahrenheit 451");
        }
        return Books;
    }
}
```

Output:

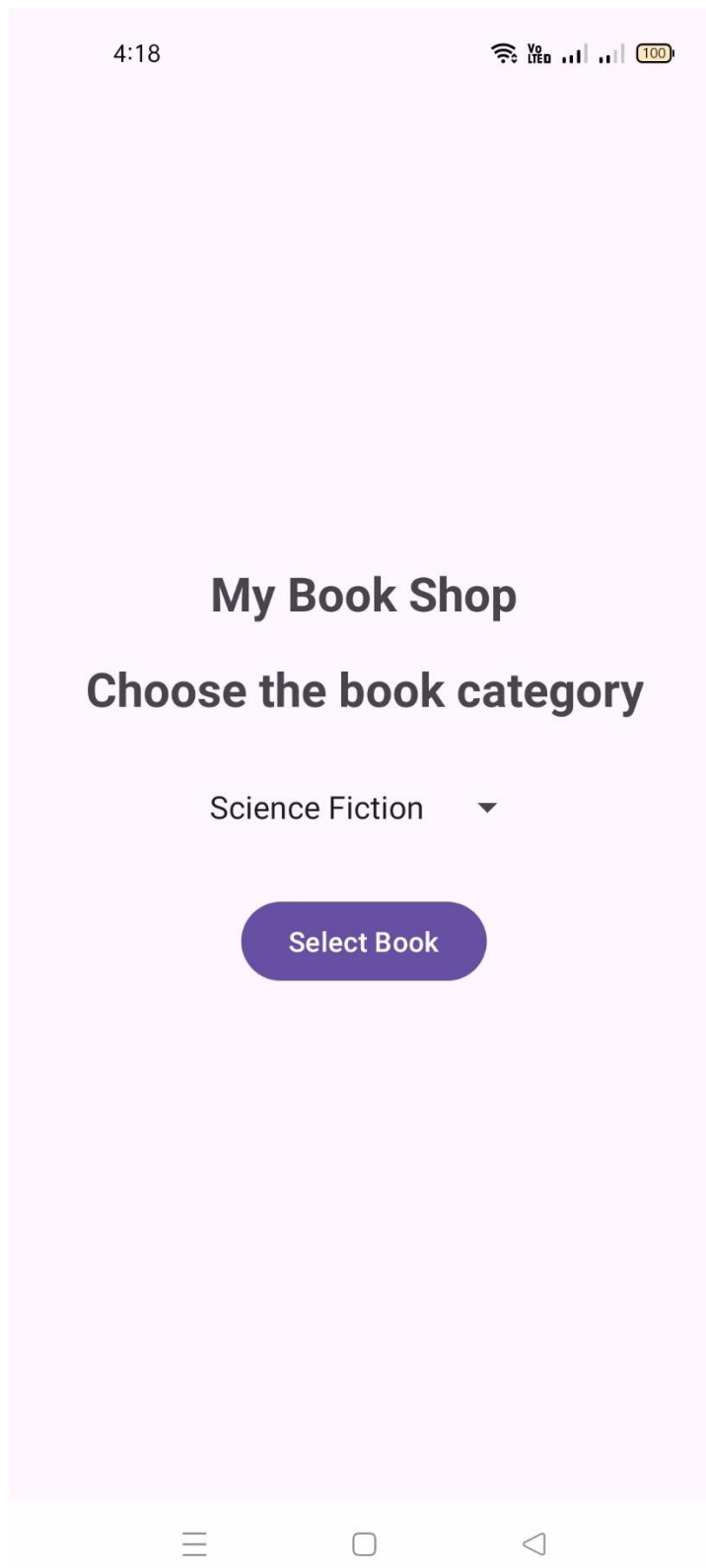


Fig-01: Select the Science Fiction category and Press the Select Book button



Fig 02: When I press the 'Select Book Button', it goes to the second activity and shows the desired book list under this category

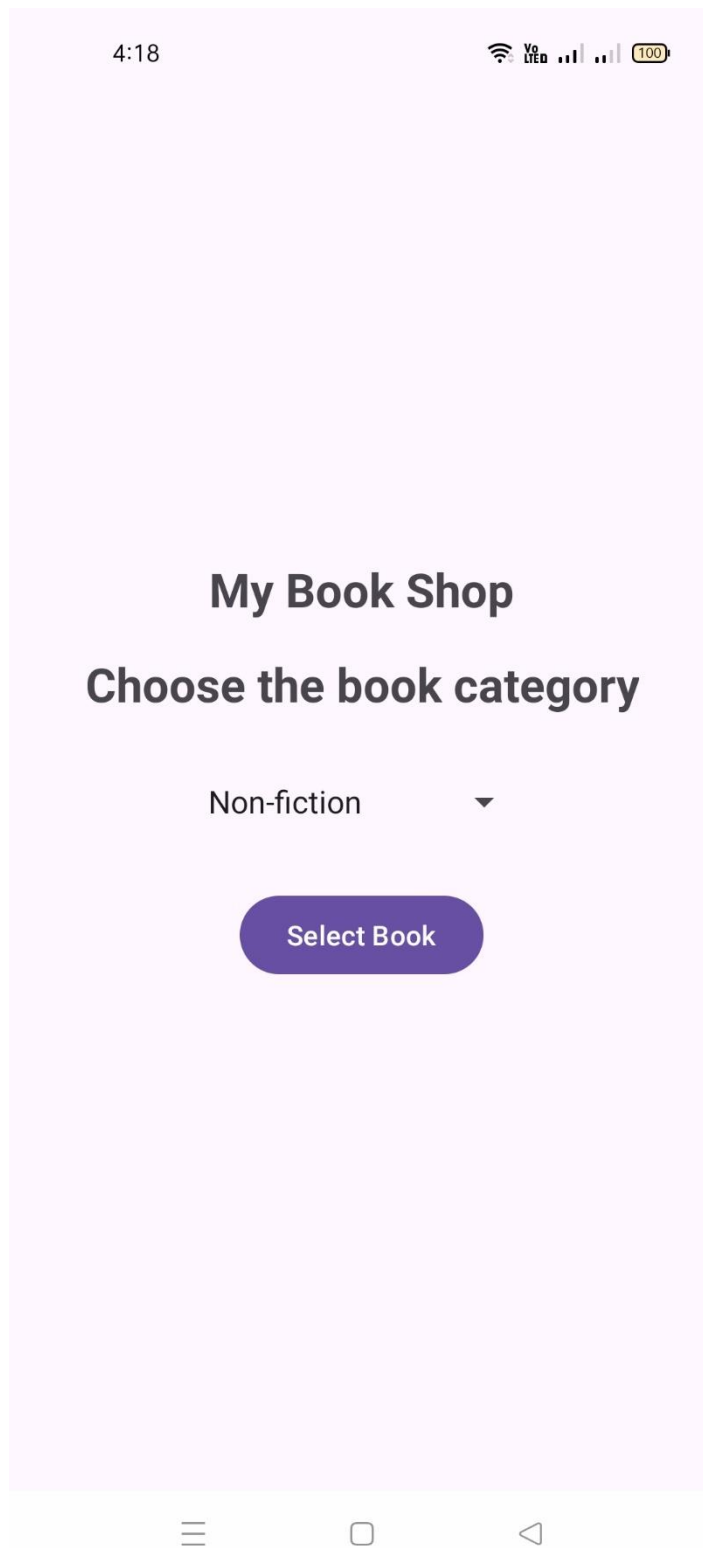


Fig-03: Select the Non-Fiction category and Press the Select Book button



Fig 04: When I press the 'Select Book Button', it goes to the second activity and shows the desired book list under this category

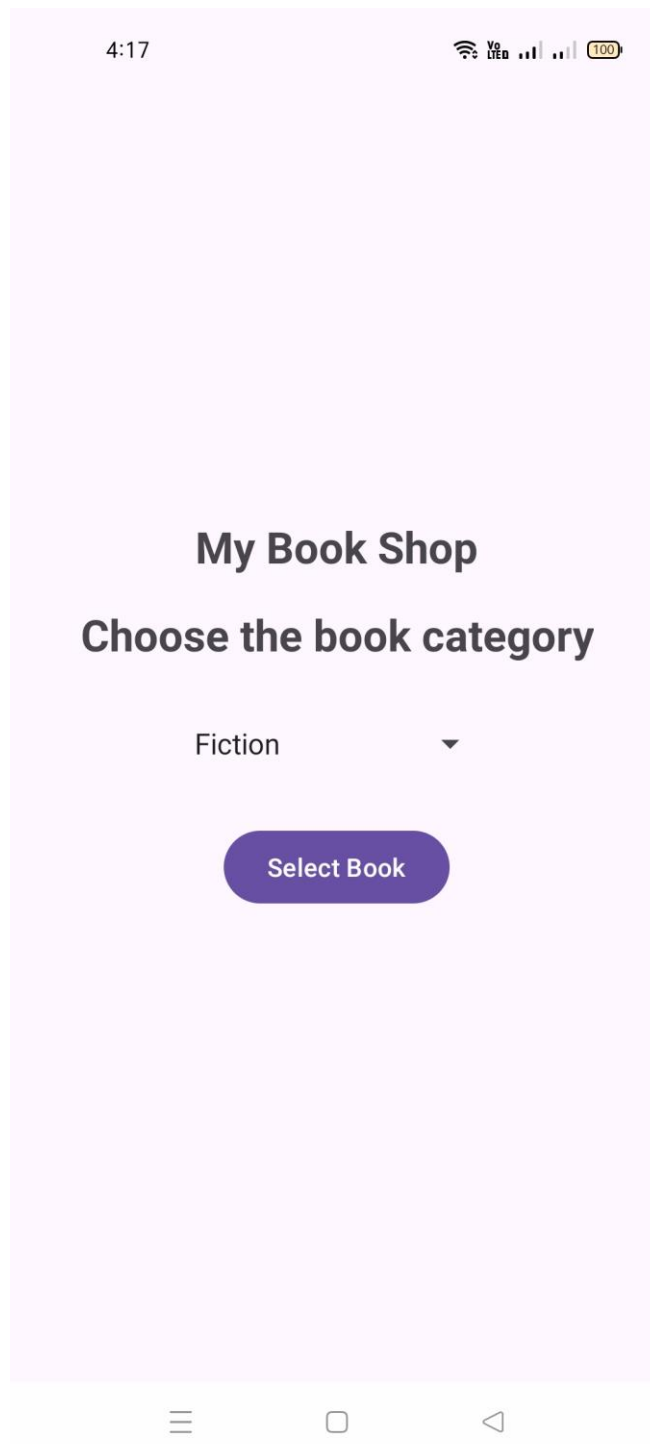


Fig-05: Select the Fiction category and Press the Select Book button



Fig 06: When I press the 'Select Book Button', it goes to the second activity and shows the desired book list under this category