Experiment – 3.1

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Aim: Create an Android application using Fragments

Objective:- The objective of an Android application using Fragments can be to enhance the user interface and improve the overall user experience by leveraging the benefits of fragment-based design. Fragments allow developers to create more modular, flexible, and scalable UI components.

1. **CODE:**
   XML:-

```xml
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="166dp"
        android:layout_height="98dp"
        android:text="HELLO World "

        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
```

```xml
        app:layout_constraintVertical_bias="0.617" />

    <EditText
        android:id="@+id/editTextExample"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter text"
        tools:layout_editor_absoluteX="0dp"
        tools:layout_editor_absoluteY="67dp" />
    <ImageView
      android:id="@+id/imageViewExample"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
android:src="@drawable/ic_launcher_foreground" />
<Fragment
    android:id="@+id/checkBoxExample"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Check me" />
<Spinner
    android:id="@+id/spinnerExample"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" />
<ProgressBar
    android:id="@+id/progressBarExample"
style="?android:attr/progressBarStyleHorizontal"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:progress="50" />
<Switch
    android:id="@+id/switchExample2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Switch me" />
<ToggleButton
      android:id="@+id/toggleButtonExample"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
```

```xml
    android:textOn="ON"
    android:textOff="OFF" />
<AutoCompleteTextView
android:id="@+id/autoCompleteTextViewExample"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Type here" />

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

Java Code:-

```java
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.CheckBox;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    CheckBox ch, ch1, ch2, ch3;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        ch=(Fragment)findViewById(R.id.checkBox);

        ch1=(CheckBox)findViewById(R.id.checkBox2);

        ch2=(CheckBox)findViewById(R.id.checkBox3);


    }
    public void Check(View v)

    {

        String msg="";

        if(ch.isChecked())
```
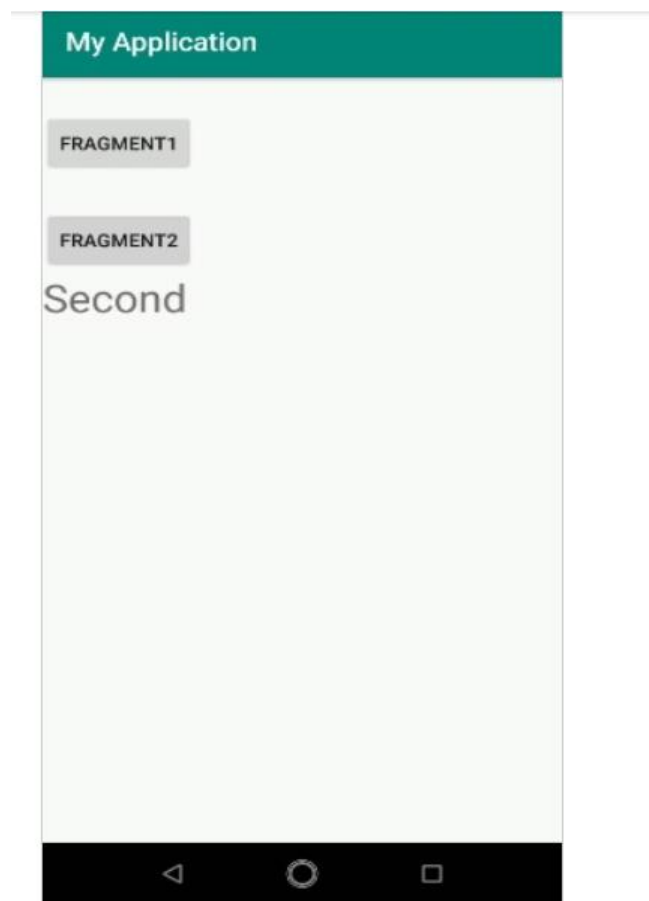
```
        msg = msg + " Fragment 1 ";
    if(ch1.isChecked()
        msg = msg + " Fragment 2";
    Toast.makeText(this, msg + "are selected",

            Toast.LENGTH_LONG).show();


    }

}
```

2. **OUTPUT:**

3. **Learning Outcomes:**
   - Successful USE of your Android development environment.
   - Project Workspace.
   - Configuration button Completion.
   - How to add new fragments.