

5. SpinnerAddRemove

```
activity_main.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:id="@+id/textView2"
        android:layout_width="118dp"
        android:layout_height="25dp"
        android:layout_marginStart="45dp"
        android:layout_marginTop="69dp"
        android:layout_marginEnd="21dp"
        android:layout_marginBottom="54dp"
        android:text="Enter Item : "
        android:textColor="@android:color/holo_orange_dark"
        android:textSize="18sp"
        app:layout_constraintBottom_toTopOf="@+id/button"
        app:layout_constraintEnd_toStartOf="@+id/editText"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/editText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="21dp"
        android:layout_marginTop="59dp"
        android:layout_marginEnd="14dp"
        android:layout_marginBottom="43dp"
        android:ems="10"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toTopOf="@+id/button2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/textView2"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="34dp"
        android:layout_marginTop="54dp"
        android:layout_marginEnd="1dp"
        android:text="Add to spinner"
        android:textColor="?android:attr/colorEdgeEffect"
        app:layout_constraintEnd_toStartOf="@+id/button2"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

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        android:layout_marginStart="32dp"
        android:layout_marginTop="43dp"
        android:layout_marginEnd="24dp"
        android:text="Remove from spinner"
        android:textColor="?android:attr/colorEdgeEffect"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/button"
        app:layout_constraintTop_toBottomOf="@+id/editText" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="48dp"
    android:layout_marginTop="68dp"
    android:layout_marginEnd="200dp"
    android:text="See Response Below"
    android:textColor="@android:color/holo_red_dark"
    android:textSize="18sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/button" />

<Spinner
    android:id="@+id/spinner"
    android:layout_width="264dp"
    android:layout_height="45dp"
    android:layout_marginStart="76dp"
    android:layout_marginTop="63dp"
    android:layout_marginEnd="71dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView3" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java

```

package com.example.spinneraddremove;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Spinner;
import android.widget.Toast;

import java.util.ArrayList;
import java.util.Arrays;

public class MainActivity extends AppCompatActivity
{
    Button b1,b2;
    EditText t1;
    Spinner sp;
    String data[] = {"Fruits"};
    ArrayList list = new ArrayList(Arrays.asList(data));
```

```

@Override
protected void onCreate(Bundle savedInstanceState)
{
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    b1 = (Button)findViewById(R.id.button);
    b2 = (Button)findViewById(R.id.button2);
    t1 = (EditText)findViewById(R.id.editText);
    sp = (Spinner)findViewById(R.id.spinner);

    final ArrayAdapter adapter = new ArrayAdapter(this,
R.layout.support_simple_spinner_dropdown_item, list);
    sp.setAdapter(adapter);

    b1.setOnClickListener(new View.OnClickListener()
{
    @Override
    public void onClick(View v)
    {
        String s = t1.getText().toString();
        list.add(s);
        adapter.notifyDataSetChanged();
        sp.setAdapter(adapter);
        Toast.makeText(getApplicationContext(),"Item added to
Spinner",Toast.LENGTH_LONG).show();
    }
});

    b2.setOnClickListener(new View.OnClickListener()
{
    @Override
    public void onClick(View v)
    {
        String s = t1.getText().toString();
        list.remove(s);
        adapter.notifyDataSetChanged();
        sp.setAdapter(adapter);
        Toast.makeText(getApplicationContext(),"Item removed from
Spinner",Toast.LENGTH_LONG).show();
    }
});
}

```

AndroidManifest.xml

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.spinneraddremove">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/AppTheme">

```

```

<activity android:name=".MainActivity">
    <intent-filter>
        <action android:name="android.intent.action.MAIN" />

        <category android:name="android.intent.category.LAUNCHER" />
    </intent-filter>
</activity>
</application>

</manifest>

```

