

Experiment no: 9

Date:

Spinner with Event Handling

Aim :

Develop an application that implements Spinner component and performs event handling.

ALGORITHM:

Step 1: Add a Spinner in the layout.

Step 2: Define an array of items (e.g., colors, fruits).

Step 3: Initialize Spinner in `MainActivity`.

Step 4: Create an `ArrayAdapter` with the dataset.

Step 5: Set the adapter to the Spinner.

Step 6: Implement `setOnItemSelectedListener()` to handle item selection.

Step 7: Show the selected item using a Toast message.

CODE:

MainActivity.java:

```
package com.example.spinnerdemo;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Spinner;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
```

```

Spinner spinner;
TextView result;
String[] languages = {"Select a programming language", "Java", "JavaScript", "Python"};

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

    spinner = findViewById(R.id.spinner);
    result = findViewById(R.id.result);

    try {
        // Create ArrayAdapter using default spinner layout
        ArrayAdapter<String> adapter = new ArrayAdapter<>(
            this,
            android.R.layout.simple_spinner_item,
            languages
        );

        // Set dropdown view style
        adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);

        // Attach adapter to spinner
        spinner.setAdapter(adapter);

        // Handle selection events
        spinner.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {
            @Override
            public void onItemSelected(AdapterView<?> parent, View view, int position, long id) {
                String selected = languages[position];

                // Ignore the default hint selection
                if (position == 0) {

```

```

        result.setText("Please select a language");
    } else {
        result.setText("Selected Language: " + selected);
        Toast.makeText(MainActivity.this, "You selected: " + selected,
Toast.LENGTH_SHORT).show();
    }
}

@Override
public void onNothingSelected(AdapterView<?> parent) {
    result.setText("Please select a language");
}
});

// Show hint by default
spinner.setSelection(0);

} catch (Exception e) {
    Toast.makeText(this, "Error: " + e.getMessage(), Toast.LENGTH_LONG).show();
}
}
}

```

XML:

```

<?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:gravity="center"
    android:orientation="vertical"
    android:padding="20dp"
    tools:context=".MainActivity">

```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Select a Programming Language"
    android:textSize="20sp"
    android:textStyle="bold"
    android:paddingBottom="20dp"
    android:textColor="@android:color/black"/>
```

```
<Spinner
    android:id="@+id/spinner"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:spinnerMode="dropdown"
    android:layout_gravity="center"/>
```

```
<TextView
    android:id="@+id/result"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Please select a language"
    android:textSize="18sp"
    android:layout_marginTop="30dp"
    android:textColor="@android:color/holo_blue_dark"/>
```

```
</LinearLayout>
```

OUTPUT:

