Android Spinner – Kotlin Example

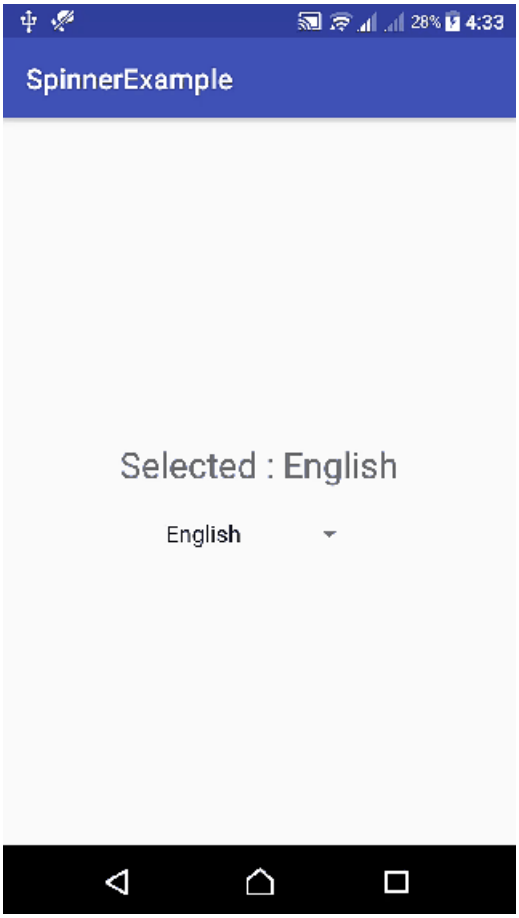
Android Spinner in Kotlin

Android Spinner is a view that displays one child at a time and when user clicks on it, it lets the user pick among multiple values.

In this tutorial, we will learn how to create a Spinner in layout file, and how to set listener for the Spinner to serve user actions like clicking on the Spinner, selecting a value from Spinner, etc.

Code – Android Spinner

The following GIF shows how an Android Spinner looks, and how user could interact with it.



Android Spinner Code

A quick code snippet to use Android Spinner in layout and Kotlin file is as shown in the following respectively.

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

```
import android.view.View
import android.widget.*

class MainActivity : /** Other Classes, */AdapterView.OnItemSelectedListener {

    var list_of_items = arrayOf("Item 1", "Item 2", "Item 3")

    override fun onCreate(savedInstanceState: Bundle?) {
        spinner!!.setOnItemSelectedListener(this)

        // Create an ArrayAdapter using a simple spinner layout and languages array
        val aa = ArrayAdapter(this, android.R.layout.simple_spinner_item, list_of_items)
        // Set layout to use when the list of choices appear
        aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item)
        // Set Adapter to Spinner
        spinner!!.setAdapter(aa)
    }

    override fun onItemSelected(arg0: AdapterView<*>, arg1: View, position: Int, id: Long) {
        // use position to know the selected item
    }

    override fun onNothingSelected(arg0: AdapterView<*>) {

    }
}
```

By default, the first element of the specified list is selected in the Spinner.

Following is a step by step guide of what is happening in the above code snippet to use Spinner

Step 1: Create a Spinner in layout file.

```
<Spinner
    android:id="@+id/spinner_sample"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"/>
```

Step 2: Add AdapterView.OnItemSelectedListener to the interface list of your Activity.

```
class MainActivity : /** Other Classes, */AdapterView.OnItemSelectedListener {
}
```

Step 3: Prepare an array of elements to be shown in Spinner view.

```
var list_of_items = arrayOf("Item 1", "Item 2", "Item 3")
```

Step 4: Set setOnItemSelectedListener to the Spinner.

```
spinner!!.setOnItemSelectedListener(this)
```

Step 5: Create an ArrayAdapter with the list of items and default layouts.

```
val array_adapter = ArrayAdapter(this, android.R.layout.simple_spinner_item, list_of_items)
array_adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item)
```

Step 6: Set ArrayAdapter to Spinner.

```
spinner!!.setAdapter(array_adapter)
```

Step 7: We have to override the following three methods of AdapterView.OnItemSelectedListener.

```
override fun onItemSelected(arg0: AdapterView<*>, arg1: View, position: Int, id: Long) {
    textView_msg!!.text = "Selected : "+languages[position]
}

override fun onNothingSelected(arg0: AdapterView<*>) {

}
```

Example – Android Spinner

Following are the details of the Android Application we created for this example.

Application Name	SpinnerExample
Company name	tutorialkart.com
Minimum SDK	API 21: Android 5.0 (Lollipop)
Activity	Empty Activity

You may keep rest of the values as default and create Android Application with Kotlin Support.

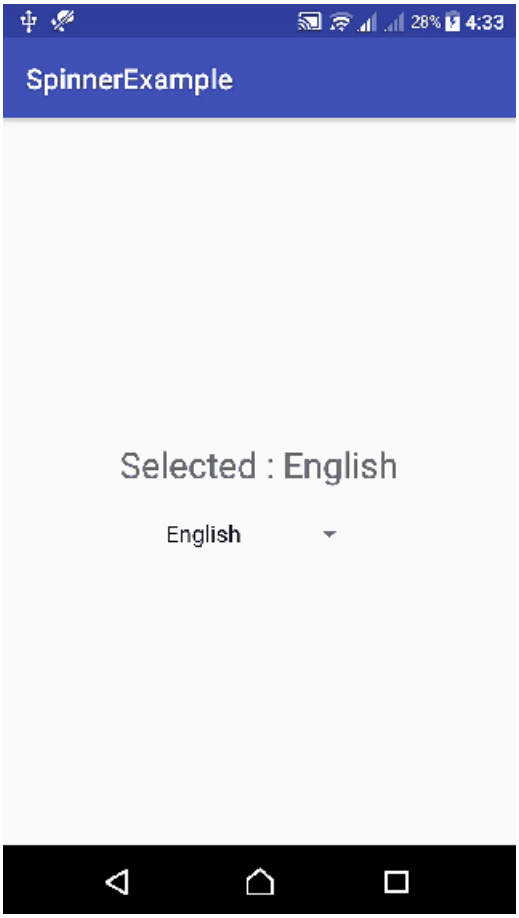
activity_main.xml

```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"
    tools:context="com.tutorialkart.spinnerexample.MainActivity">

    <TextView
        android:id="@+id/msg"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="25dp"
        android:padding="20dp"/>

    <Spinner
        android:id="@+id/spinner_sample"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>

</LinearLayout>
```

MainActivity.kt

```
package com.tutorialkart.spinnerexample

import android.support.v7.app.AppCompatActivity
import android.os.Bundle
import kotlinx.android.synthetic.main.activity_main.*
import android.view.View
import android.widget.*


class MainActivity : AppCompatActivity(),AdapterView.OnItemSelectedListener {

    var languages = arrayOf("English", "French", "Spanish", "Hindi", "Russian", "Telugu", "Chi

    var spinner:Spinner? = null
    var textView_msg:TextView? = null

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        textView_msg = this.msg

        spinner = this.spinner_sample
        spinner!!.setOnItemSelectedListener(this)

        // Create an ArrayAdapter using a simple spinner layout and languages array
        val aa = ArrayAdapter(this, android.R.layout.simple_spinner_item, languages)
        // Set layout to use when the list of choices appear
        aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item)
        // Set Adapter to Spinner
        spinner!!.setAdapter(aa)

    }

    override fun onItemSelected(arg0: AdapterView<*>, arg1: View, position: Int, id: Long) {
        textView_msg!!.text = "Selected : "+languages[position]
    }

    override fun onNothingSelected(arg0: AdapterView<*>) {

    }
}
```

Output



Conclusion

In this Android Tutorial : **Android Spinner – Kotlin Example**, we have learnt to use Spinner with an example Android Application.

Getting Started with Android

- Kotlin Android Tutorial
- Create Android Application with Kotlin Support
- Walk Through Android Studio
- Convert Java Files to Kotlin Files
- Kotlin vs Java
- Use Java 8 in Android
- Add External Jar to Android Dependencies

Android TextView

- Android TextView
- Android TextView - Basic Example
- Android TextView - Create programmatically
- Android TextView - OnClickListener
- Android TextView - Justify Text

- Android TextView - Italic
- Android TextView - Bold

Android Button

- Android - New Button programmatically
- Android Button - OnClickListener
- Android Button - Disable All Caps
- Android Button - Custom Background
- Android Button - Change background programatically

Android Toast

- Android Toast - Example

Android EditText

- Android EditText - Create programmatically
- Android EditText - On Text Change - Listener
- Android TextInputLayout - Floating Label in EditText
- Android EditText - Keyboard with only Numbers
- Android EditText - Show/Hide Password

Android ImageView

- Android ImageView - OnClickListener

Android Radio Buttons

- Android RadioGroup - RadioButtons Create programmatically

Android SeekBar

- Android SeekBar - Example
- Android SeekBar Set Custom Range

Android Intent

- Android - Start Another Activity
- Android - Open URL in Browser Activity

Android AlertDialog

- Android AlertDialog - Example

Android WebView

- Android WebView - Example

Android ProgressBar

- Kotlin Android - Inderterminate ProgressBar

Android Snackbar

- Android Snackbar - Example
- Android Snackbar - Set Action
- Android Snackbar - Change Text Color, Background Color

Android ListView

- Android ListView Example
- Android Refresh ListView

Android Device Parameters

- Android Get Screen Width and Height Programatically

Android Canvas

- Draw Rect / Oval to Canvas
- Android Draw Circle Border
- Android Draw SVG to Canvas

Android Programming - Other

- Android - Access View Programmatically using findViewById
- Android runOnUiThread

Android Game Development

- Android Game Development
- Detect Collisions between two Sprites (Bitmaps)

Android Text To Speech

- Android Text To Speech - Kotlin Example

Fix Errors

- Android - Minimum supported Gradle version
- Android - All support libraries must use the exact same version specification

Example Applications

- Android - Login Form
- Android - Color Picker
- Kotlin Android Game Development

Kotlin - Java

- Kotlin Tutorial

Useful Resources

- How to Learn Programming