

Program No:	13
Roll No :	1545
Title of Program :	AutoCompleteTextView component
Objective :	To learn Auto completing text view using array adapter

What is the use of an Array Adapter?

The Adapter acts as a bridge between the UI Component and the Data Source. It converts data from the data sources into view items that can be displayed into the UI Component. Data Source can be Arrays, HashMap, Database, etc. and UI Components can be ListView, GridView, Spinner, etc.

ArrayAdapter is the most commonly used adapter in android. When you have a list of single type items which are stored in an array you can use ArrayAdapter. Likewise, if you have a list of phone numbers, names, or cities. ArrayAdapter has a layout with a single TextView. If you want to have a more complex layout instead of ArrayAdapter use CustomArrayAdapter.

Parameters:

context: The current context. This value can not be null.

resource: The resource ID for the layout file containing a layout to use when instantiating views.

textViewResource: The id of the TextView within the layout resource to be populated.

objects: The objects to represent in the ListView. This value cannot be null.

Source Code:

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
    android:background="@drawable/marvel"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Select a movie:"
        android:textSize="20sp"
        android:textColor="@color/white"
        android:textAlignment="center"
```

```
        android:layout_marginTop="30dp"
        android:id="@+id/text"
    />

    <AutoCompleteTextView
        android:id="@+id/autoc"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Select"
        android:layout_below="@+id/text"
    />

</RelativeLayout>
```

MainActivity.java

```
package com.example.arrayadapter;

import android.graphics.Color;
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
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 {
    TextView text1;
    AutoCompleteTextView autoc;
    String[] movies = {
        "Iron Man",
        "The Incredible Hulk",
        "Iron Man 2",
        "Thor",
        "Captain America: The First Avenger",
        "The Avengers",
        "Iron Man 3",
        "Thor: The Dark World",
        "Captain America: The Winter Soldier",
        "Guardians of the Galaxy",
    }
}
```

```
"Avengers: Age of Ultron",
"Ant-Man",
"Captain America: Civil War",
"Doctor Strange",
"Guardians of the Galaxy Vol. 2",
"Spider-Man: Homecoming",
"Thor: Ragnarok",
"Black Panther",
"Avengers: Infinity War",
"Ant-Man and the Wasp",
"Captain Marvel",
"Avengers: Endgame",
"Spider-Man: Far From Home",
"Black Widow",
"Shang-Chi and the Legend of the Ten Rings",
"Eternals",
"Spider-Man: No Way Home",
"Doctor Strange in the Multiverse of Madness",
"Thor: Love and Thunder",
"Black Panther: Wakanda Forever",
"Ant-Man and the Wasp: Quantumania",
"Guardians of the Galaxy Vol. 3"

};
@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;
    });

    autoc = findViewById(R.id.autoc);
    ArrayAdapter<String> adapter = new ArrayAdapter<>(this,
android.R.layout.select_dialog_item, movies);

    autoc.setThreshold(1);
    autoc.setAdapter(adapter);
    autoc.setTextColor(Color.WHITE);
}
}
```

Output:



