

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.
  com/apk/res/android"
3   xmlns:app="http://schemas.android.com/apk/res-auto"
4   xmlns:tools="http://schemas.android.com/tools"
5   android:layout_width="match_parent"
6   android:layout_height="match_parent"
7   tools:context=".MainActivity">
8
9   <EditText
10     android:id="@+id/txtFilter"
11     android:layout_width="match_parent"
12     android:layout_height="wrap_content"
13     app:layout_constraintStart_toStartOf="parent"
14     app:layout_constraintTop_toTopOf="parent"
15     android:layout_marginTop="16dp"
16     android:layout_marginLeft="16dp" />
17   <ListView
18     android:id="@+id/listViewPlayer"
19     android:layout_width="409dp"
20     android:layout_height="wrap_content"
21     app:layout_constraintStart_toStartOf="parent"
22     app:layout_constraintTop_toBottomOf="@+id/txtFilter" />
23 </androidx.constraintlayout.widget.ConstraintLayout>
```

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.
  com/apk/res/android"
3   xmlns:app="http://schemas.android.com/apk/res-auto"
4   xmlns:tools="http://schemas.android.com/tools"
5   android:layout_width="match_parent"
6   android:layout_height="match_parent"
7   tools:context=".oneRowPlayer">
8   <TextView
9     android:id="@+id/textViewName"
10    android:layout_width="wrap_content"
11    android:layout_height="wrap_content"
12    android:layout_marginStart="16dp"
13    android:layout_marginTop="16dp"
14    android:text="TextView"
15    app:layout_constraintStart_toStartOf="parent"
16    app:layout_constraintTop_toTopOf="parent" />
17
18   <ImageView
19     android:id="@+id/imageViewImage"
20     android:layout_width="wrap_content"
21     android:layout_height="wrap_content"
22     android:layout_marginStart="48dp"
23     android:layout_marginTop="16dp"
24     app:layout_constraintStart_toEndOf="@+id/textViewName"
25     app:layout_constraintTop_toTopOf="parent"
26     tools:srcCompat="@tools:sample/avatars" />
27 </androidx.constraintlayout.widget.ConstraintLayout>
```

```
1 package android.customlistviewbaseadapterwithimage;
2
3 public class Player {
4     private String name;
5     private int image;
6
7     public Player(String name, int image) {
8         this.name = name;
9         this.image = image;
10    }
11
12    public String getName() {
13        return name;
14    }
15
16    public int getImage() {
17        return image;
18    }
19
20    public void setName(String name) {
21        this.name = name;
22    }
23
24    public void setImage(int image) {
25        this.image = image;
26    }
27 }
28
```

```

1 package android.customlistviewbaseadapterwithimage;
2
3 import android.content.Context;
4 import android.view.LayoutInflater;
5 import android.view.View;
6 import android.view.ViewGroup;
7 import android.widget.BaseAdapter;
8 import android.widget.Filter;
9 import android.widget.Filterable;
10 import android.widget.ImageView;
11 import android.widget.TextView;
12
13 import java.util.ArrayList;
14
15 public class CustomAdapter extends BaseAdapter implements Filterable{
16     private Context context; //context
17     private ArrayList<Player> players; //data source of the list adapter
18
19     private CustomFilter filter;
20     private ArrayList<Player> filterList;
21
22
23     public CustomAdapter(Context context, ArrayList<Player> players) {
24         this.context = context;
25         this.players = players;
26         this.filterList=players;
27     }
28     @Override
29     public int getCount() {
30         return players.size();
31     }
32     @Override
33     public Object getItem(int position) {
34         return players.get(position);
35     }
36     @Override
37     public long getItemId(int position) {
38         return position;
39     }
40     @Override
41     public View getView(int position, View convertView, ViewGroup viewGroup) {
42         View view = convertView;
43         if (view == null) {
44             LayoutInflater inflater = LayoutInflater.from(context);
45             view = inflater.inflate(R.layout.activity_one_row_player, null);
46         }
47         Player p = (Player) getItem(position);
48         if (p != null) {
49             // Anh xa + Gan gia tri
50             TextView txt = (TextView) view.findViewById(R.id.textViewName);
51             txt.setText(p.getName());
52             ImageView img = (ImageView) view.findViewById(R.id.imageViewImage);
53             img.setImageResource(p.getImage());
54         }
55         return view;
56     }
57
58     @Override
59     public Filter getFilter() {
60         if(filter == null)
61         {
62             filter=new CustomFilter();
63         }
64
65         return filter;
66     }
67     private class CustomFilter extends Filter{
68
69         @Override
70         protected FilterResults performFiltering(CharSequence constraint) {
71             FilterResults results=new FilterResults();
72             if(constraint != null && constraint.length()>0)
73             {
74                 //CONSTRAINT TO UPPER
75                 constraint=constraint.toString().toUpperCase();
76                 ArrayList<Player> filters=new ArrayList<Player>();
77                 //get specific items
78                 for(int i=0;i<filterList.size();i++)

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```
79         {
80             if(filterList.get(i).getName().toUpperCase().contains(constraint))
81             {
82                 Player p=new Player(filterList.get(i).getName(), filterList.get(
83 i).getImage());
84                 filters.add(p);
85             }
86
87             results.count=filters.size();
88             results.values=filters;
89
90         }else
91         {
92             results.count=filterList.size();
93             results.values=filterList;
94
95         }
96
97         return results;
98     }
99
100     @Override
101     protected void publishResults(CharSequence charSequence, FilterResults results)
102     {
103         players=(ArrayList<Player>)results.values;
104         notifyDataSetChanged();
105     }
106 }
107
```

```

1 package android.customlistviewbaseadapterwithimage;
2
3 import android.os.Bundle;
4 import android.text.Editable;
5 import android.text.TextWatcher;
6 import android.widget.EditText;
7 import android.widget.ListView;
8
9 import androidx.appcompat.app.AppCompatActivity;
10
11 import java.util.ArrayList;
12
13 public class MainActivity extends AppCompatActivity {
14
15     ListView listViewPlayer;
16     EditText txtFilter;
17
18     String[] names={"Cristiano Ronaldo","Lionel Messi","Mohamed Salah",};
19     int[] images={R.drawable.cr7,R.drawable.ml0,R.drawable.sl1,};
20
21     @Override
22     protected void onCreate(Bundle savedInstanceState) {
23         super.onCreate(savedInstanceState);
24         setContentView(R.layout.activity_main);
25
26         listViewPlayer = (ListView)findViewById(R.id.listViewPlayer);
27         txtFilter=(EditText)findViewById(R.id.txtFilter);
28         final CustomAdapter adapter=new CustomAdapter(MainActivity.this,getPlayers());
29         listViewPlayer.setAdapter(adapter);
30
31         txtFilter.addTextChangedListener(new TextWatcher() {
32             @Override
33             public void beforeTextChanged(CharSequence charSequence, int i, int i1, int
34 i2) {
35
36             }
37
38             @Override
39             public void onTextChanged(CharSequence query, int i, int i1, int i2) {
40                 adapter.getFilter().filter(query);
41             }
42
43             @Override
44             public void afterTextChanged(Editable editable) {
45
46             }
47         });
48     }
49
50     private ArrayList<Player> getPlayers()
51     {
52         ArrayList<Player> players=new ArrayList<Player>();
53         Player p;
54
55         for(int i=0;i<names.length;i++)
56         {
57             p=new Player(names[i], images[i]);
58             players.add(p);
59         }
60
61         return players;
62     }
63
64 }
65
66

```