

RecyclerView

Latest Items



Namkeen

500gm

Rs.350

Sona Namkeen

250gm

Rs.100

Chips

500gm

Rs.80

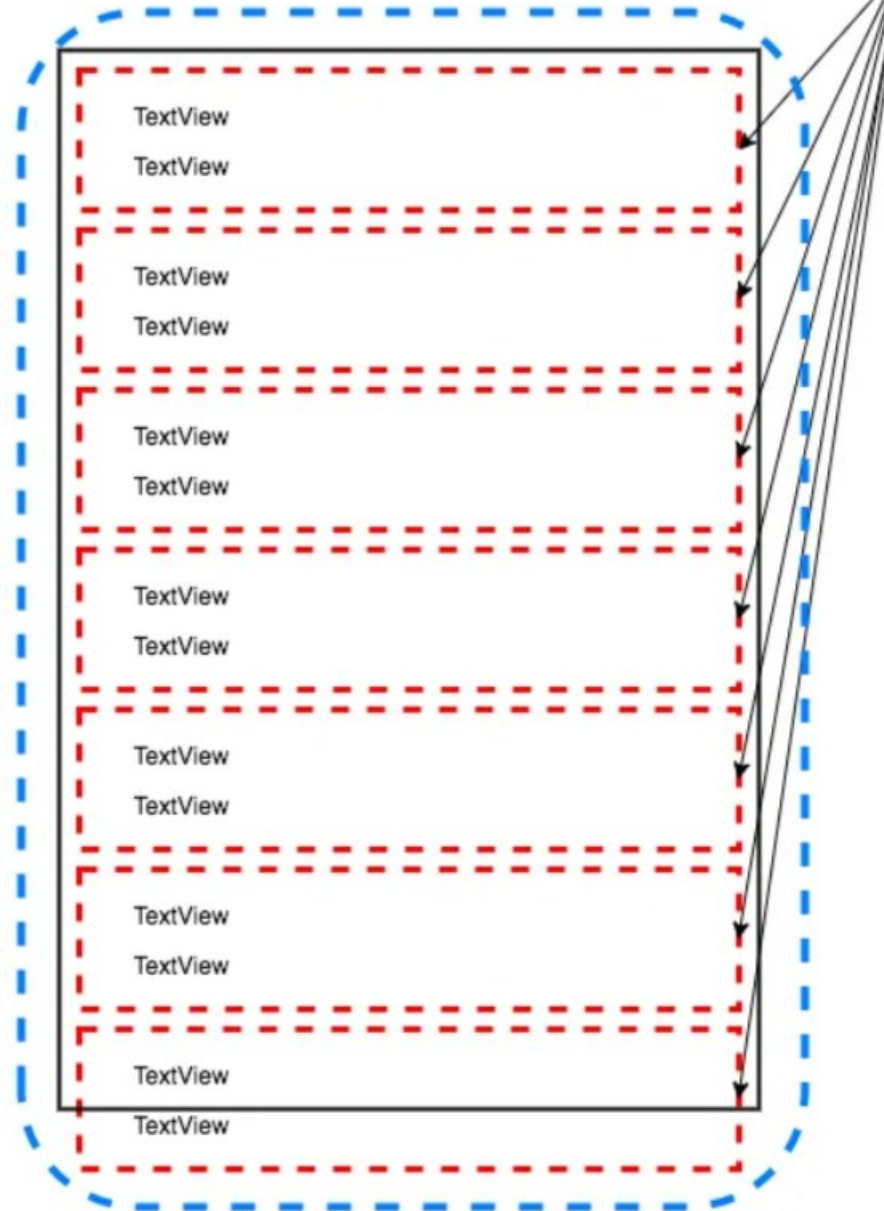
Lays

100

Rs.40

RecyclerView

Recycles data within a set of ViewHolders



ViewHolders

Populates the View elements in the UI

Adapter

Binds data to ViewHolders



Data Collection

Populates the views in the ViewHolders



توضیح کننده view ها آیم و سلاسل آیم
در باره آن آیم

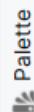
قرار می بین RV و داده های RV به RV
عناصی رهند

وظیفه: ای کار ViewHolders را می و
افعال ViewHolders به داده

```

1  <?xml version="1.0" encoding="utf-8"?>
2  <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res-auto"
3      xmlns:app="http://schemas.android.com/apk/res-auto"
4      xmlns:tools="http://schemas.android.com/tools"
5      android:id="@+id/main"
6      android:layout_width="match_parent"
7      android:layout_height="match_parent"
8      android:scrollbars="vertical"
9      tools:context=".MainActivity">
10
11
12  <androidx.recyclerview.widget.RecyclerView
13      android:id="@+id/recyclerView"
14      android:layout_width="match_parent"
15      android:layout_height="match_parent"
16      android:scrollbars="vertical"
17      app:layout_constraintBottom_toBottomOf="parent"
18      app:layout_constraintEnd_toEndOf="parent"
19      app:layout_constraintStart_toStartOf="parent"
20      app:layout_constraintTop_toTopOf="parent" />
21 </androidx.constraintlayout.widget.ConstraintLayout>

```



activity_main.xml v



Pixel v

34 v



0dp



Item 0
Item 1
Item 2
Item 3
Item 4
Item 5
Item 6
Item 7
Item 8
Item 9

Component Tree

Android

app

manifests

java

com.example.myapplication

MainActivity

MyListAdapter

MyListData

com.example.myapplication

com.example.myapplication

java (generated)

res

drawable

layout

activity_main.xml

list_item.xml

mipmap

values

xml

res (generated)

Gradle Scripts

list_item.xml

1

2

3

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15

16

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18

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<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res-auto"

xmlns:app="http://schemas.android.com/apk/res-auto"

android:id="@+id/linearLayout"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:background="@drawable/border"

android:orientation="horizontal"

android:padding="5dp">

<ImageView

android:id="@+id/imageView"

android:layout_width="70dp"

android:layout_height="70dp"

android:layout_weight="1"

app:srcCompat="@drawable/android_image_1" />

<TextView

android:id="@+id/textView"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_gravity="center"

android:layout_weight="1"

android:text="TextView"

android:textSize="20sp" />

</LinearLayout>

list_item.xml

Pixel

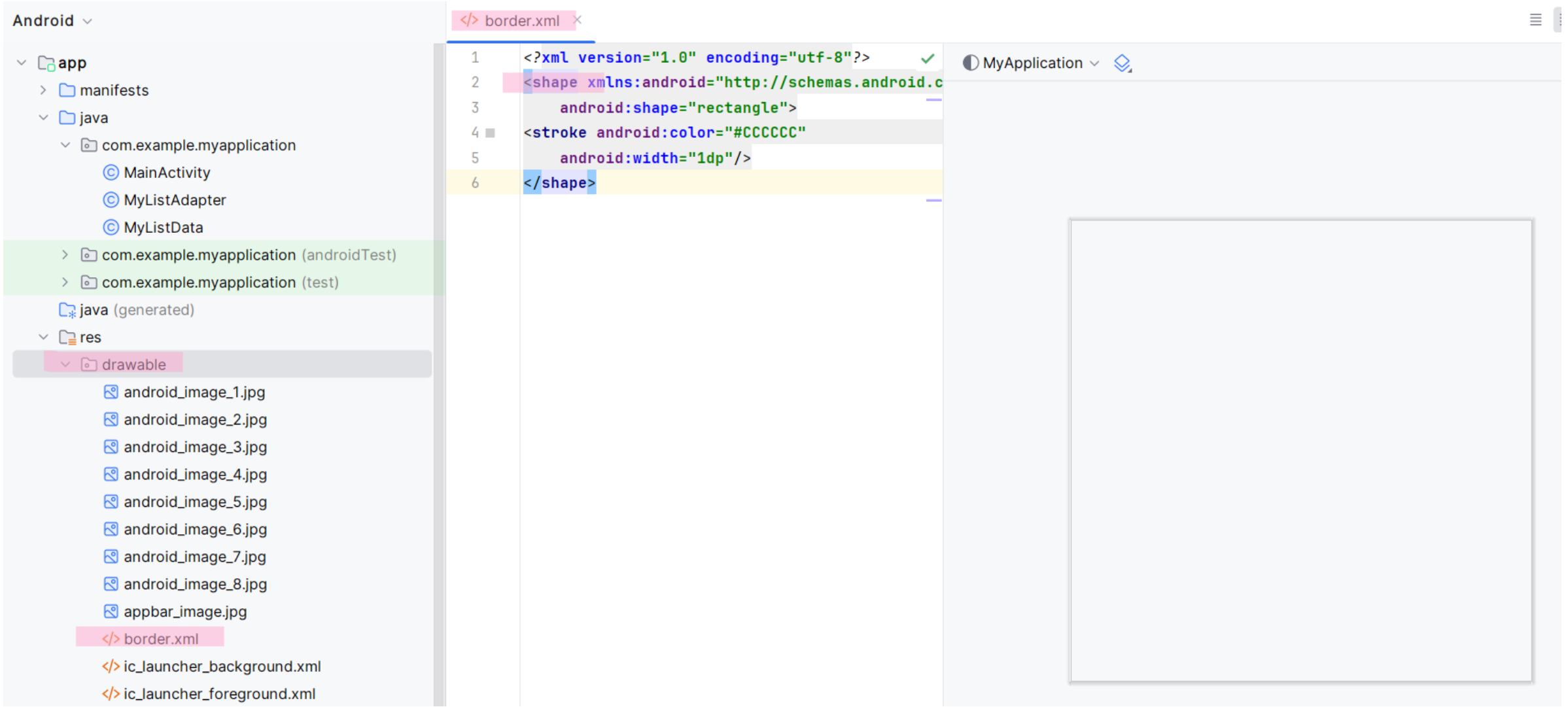
34

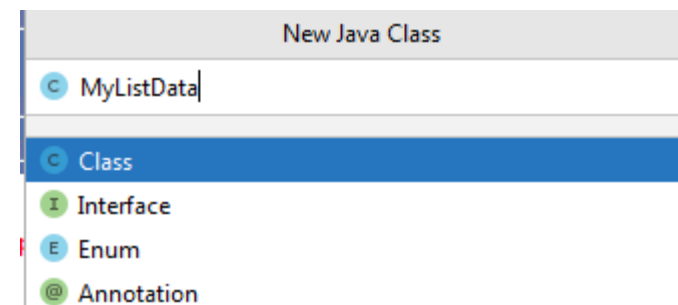
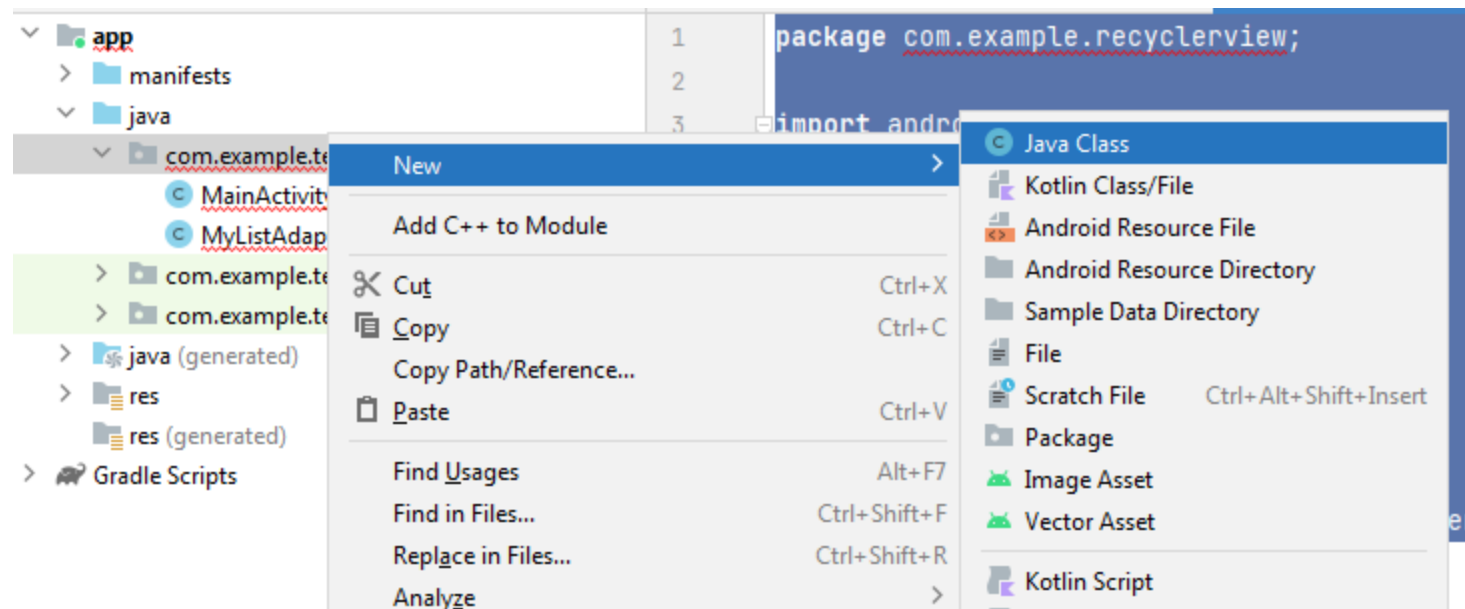
MyApplication

list_item.xml

TextView

ImageView





```
1  package com.example.myapplication;
2
3  29 usages
4  public class MyListData {
5      2 usages
6      String title;
7      2 usages
8      int imgId;
9
10     24 usages
11     //.....Constructor: to MainActivity
12     public MyListData(String title, int imgId) {
13         this.title = title;
14         this.imgId = imgId;
15     }
16
17     2 usages
18     //.....Getters: will be called in Adapter class
19     // (MyListAdapter), customize layout: List_item
20     public String getTitle() { return title; }
21
22     1 usage
23     public int getImgId() { return imgId; }
24 }
25 }
```



```
1 package com.example.myapplication;
2
3 import android.view.LayoutInflater;
4 import android.view.View;
5 import android.view.ViewGroup;
6 import android.widget.ImageView;
7 import android.widget.LinearLayout;
8 import android.widget.TextView;
9 import android.widget.Toast;
10
11 import androidx.annotation.NonNull;
12 import androidx.recyclerview.widget.RecyclerView;
13
14 3 usages
15 public class MyListAdapter extends RecyclerView.Adapter<MyListAdapter.ViewHolder> {
16
17     5 usages
18     private MyListData[] listData;
19     1 usage
20     //.....Constructor:
21     public MyListAdapter(MyListData[] listData) {
22         this.listData = listData;
23     }
24 }
```

برای مدیریت ViewHolderها

```
24  @Override
25  public ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {
26      LayoutInflater inflater=LayoutInflater.from(parent.getContext());
27      View listItem=inflater.inflate(R.layout.list_item,parent, attachToRoot: false);
28      ViewHolder viewHolder=new ViewHolder(listItem);
29      return viewHolder;
30  }//onCreateViewHolder

31
32  @Override
33  public void onBindViewHolder(@NonNull ViewHolder holder, int position) {
34      MyListData myListData=listData[position];
35      holder.textView.setText(listData[position].getTitle());
36      holder.imageView.setImageResource(listData[position].getImgId());
37      holder.linearLayout.setOnClickListener(new View.OnClickListener() {
38          @Override
39          public void onClick(View view) {
40              Toast.makeText(view.getContext(), text: "clicked on item: "+myListData.getTitle(), Toast.LENGTH_LONG).show();
41          }
42      });
43  }//onBindViewHolder
```

مدیریت ViewHolderها از طریق:

۱- ایجاد ViewHolder در صورت نیاز

۲- اتصال ViewHolderها به داده‌های متناظر با
در نظر گرفتن موقعیت (position)

```

44
45     @Override
46     public int getItemCount() {
47
48         return listData.length;
49     }

```

تعداد کل مجموعه داده‌ها توسط **Adapter** نگه داشته می‌شود.
مورد استفاده در **onBind**

50

5 usages

نمایش **view**‌ها توسط شی **ViewHolder**

```

51     public class ViewHolder extends RecyclerView.ViewHolder {
52
53         2 usages
54         public ImageView imageView;
55         2 usages
56         public TextView textView;
57         2 usages
58         public LinearLayout linearLayout;
59
60         1 usage
61         public ViewHolder(@NonNull View itemView) {
62             super(itemView);
63             this.imageView=itemView.findViewById(R.id.imageView);
64             this.textView=itemView.findViewById(R.id.textView);
65             this.linearLayout=itemView.findViewById(R.id.linearLayout);
66         } //ViewHolder
67     } //class ViewHolder
68 } //MyListAdapter

```

```
15      @Override
16      protected void onCreate(Bundle savedInstanceState) {
17          super.onCreate(savedInstanceState);
18          setContentView(R.layout.activity_main);
19
20          MyListData[] myListData = new MyListData[] {
21              new MyListData( title: "image 1",R.drawable.android_image_1),
22              new MyListData( title: "image 2",R.drawable.android_image_2),
23              new MyListData( title: "image 3",R.drawable.android_image_3),
24              new MyListData( title: "image 4",R.drawable.android_image_4),
25              new MyListData( title: "image 5",R.drawable.android_image_5),
26              new MyListData( title: "image 6",R.drawable.android_image_6),
27              new MyListData( title: "image 7",R.drawable.android_image_7),
28              new MyListData( title: "image 8",R.drawable.android_image_8),
29              new MyListData( title: "image 9",R.drawable.android_image_1),
30              new MyListData( title: "image 10",R.drawable.android_image_2),
31              new MyListData( title: "image 11",R.drawable.android_image_3),
32              new MyListData( title: "image 12",R.drawable.android_image_4),
33              new MyListData( title: "image 13",R.drawable.android_image_5),
34              new MyListData( title: "image 14",R.drawable.android_image_6),
35              new MyListData( title: "image 15",R.drawable.android_image_7),
36              new MyListData( title: "image 16",R.drawable.android_image_8),
37              new MyListData( title: "image 17",R.drawable.android_image_1),
38              new MyListData( title: "image 18",R.drawable.android_image_2),
39              new MyListData( title: "image 19",R.drawable.android_image_3),
40              new MyListData( title: "image 20",R.drawable.android_image_4),
41              new MyListData( title: "image 21",R.drawable.android_image_5),
42              new MyListData( title: "image 22",R.drawable.android_image_6),
43              new MyListData( title: "image 23",R.drawable.android_image_7),
44              new MyListData( title: "image 24",R.drawable.android_image_8),
45          };
```

```
RecyclerView recyclerView=findViewById(R.id.recyclerView);  
MyListAdapter adapter=new MyListAdapter(myListData);  
recyclerView.setLayoutManager(new LinearLayoutManager( context: this));  
recyclerView.setAdapter(adapter);  
  
}//onCreate  
}//MainActivity
```

تنظیم چیدمان
تنظیم adapter