Demo44-CardView的使用

1. app模块下添加依赖

implementation **'com.android.support:recyclerview-v7:28.0.0'**implementation **'com.android.support:cardview-v7:28.0.0'**implementation **'com.github.bumptech.glide:glide:3.7.0'**

1. activity\_main.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**android.support.v4.widget.DrawerLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 android:id="@+id/drawer\_layout"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"** >  
  
  
<**android.support.design.widget.CoordinatorLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"**>  
  
 <**android.support.v7.widget.Toolbar  
 android:id="@+id/toolbar"  
 android:layout\_width="match\_parent"  
 android:layout\_height="?actionBarSize"  
 android:background="?attr/colorPrimary"  
 android:theme="@style/ThemeOverlay.AppCompat.Dark.ActionBar"  
 app:popupTheme="@style/ThemeOverlay.AppCompat.Light"** />  
   
   
 <**android.support.v7.widget.RecyclerView  
 android:id="@+id/recycler\_view"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"**/>  
  
  
 <**android.support.design.widget.FloatingActionButton  
 android:id="@+id/fab"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="bottom|end"  
 android:layout\_margin="16dp"  
 android:src="@drawable/ic\_done"  
 app:elevation="10dp"** />  
  
</**android.support.design.widget.CoordinatorLayout**>  
  
  
  
  
 <**android.support.design.widget.NavigationView  
 android:id="@+id/nav\_view"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_gravity="start"  
 app:menu="@menu/nav\_menu"  
 app:headerLayout="@layout/nav\_header"** />  
  
  
</**android.support.v4.widget.DrawerLayout**>

1. RecyclerView的bean：数据实体类

**public class** Fruit {  
  
 **private** String **name**;  
 **private int imageId**;  
  
 **public** String getName() {  
 **return name**;  
 }  
  
 **public void** setName(String name) {  
 **this**.**name** = name;  
 }  
  
 **public int** getImageId() {  
 **return imageId**;  
 }  
  
 **public void** setImageId(**int** imageId) {  
 **this**.**imageId** = imageId;  
 }  
}

1. RecyclerView的子项布局item使用CardView:

fruit\_item.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**android.support.v7.widget.CardView  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="5dp"  
 app:cardCornerRadius="4dp"**>  
  
 <**LinearLayout  
 android:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"**>  
  
 <**ImageView  
 android:id="@+id/fruit\_image"  
 android:layout\_width="match\_parent"  
 android:layout\_height="100dp"  
 android:scaleType="centerCrop"** />  
  
 <**TextView  
 android:id="@+id/fruit\_name"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center\_horizontal"  
 android:layout\_margin="5dp"  
 android:textSize="16sp"** />  
 </**LinearLayout**>  
  
</**android.support.v7.widget.CardView**>

1. RecyclerView的适配器类

**import** android.content.Context;  
**import** android.content.Intent;  
**import** android.support.v7.widget.CardView;  
**import** android.support.v7.widget.RecyclerView;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.ImageView;  
**import** android.widget.TextView;  
**import** com.bumptech.glide.Glide;  
**import** java.util.List;  
  
**public class** FruitAdapter **extends** RecyclerView.Adapter<FruitAdapter.ViewHolder>{  
  
 **private static final** String ***TAG*** = **"FruitAdapter"**;  
  
 **private** Context **mContext**;  
  
 **private** List<Fruit> **mFruitList**;  
  
 **static class** ViewHolder **extends** RecyclerView.ViewHolder {  
 CardView **cardView**;  
 ImageView **fruitImage**;  
 TextView **fruitName**;  
  
 **public** ViewHolder(View view) {  
 **super**(view);  
 **cardView** = (CardView) view;  
 **fruitImage** = (ImageView) view.findViewById(R.id.***fruit\_image***);  
 **fruitName** = (TextView) view.findViewById(R.id.***fruit\_name***);  
 }  
 }  
  
 **public** FruitAdapter(List<Fruit> fruitList) {  
 **mFruitList** = fruitList;  
 }  
  
 @Override  
 **public** ViewHolder onCreateViewHolder(ViewGroup parent, **int** viewType) {  
 **if** (**mContext** == **null**) {  
 **mContext** = parent.getContext();  
 }  
 View view = LayoutInflater.*from*(**mContext**).inflate(R.layout.***fruit\_item***, parent, **false**);  
 **final** ViewHolder holder = **new** ViewHolder(view);  
 */\* holder.cardView.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 int position = holder.getAdapterPosition();  
 Fruit fruit = mFruitList.get(position);  
 Intent intent = new Intent(mContext, FruitActivity.class);  
 intent.putExtra(FruitActivity.FRUIT\_NAME, fruit.getName());  
 intent.putExtra(FruitActivity.FRUIT\_IMAGE\_ID, fruit.getImageId());  
 mContext.startActivity(intent);  
 }  
 });\*/* **return** holder;  
 }  
  
 @Override  
 **public void** onBindViewHolder(ViewHolder holder, **int** position) {  
 Fruit fruit = **mFruitList**.get(position);  
 holder.**fruitName**.setText(fruit.getName());  
 Glide.*with*(**mContext**).load(fruit.getImageId()).into(holder.**fruitImage**);  
 }  
  
 @Override  
 **public int** getItemCount() {  
 **return mFruitList**.size();  
 }  
  
}

1. MainActivity: initView，initData

**import** android.support.annotation.NonNull;  
**import** android.support.design.widget.FloatingActionButton;  
**import** android.support.design.widget.NavigationView;  
**import** android.support.design.widget.Snackbar;  
**import** android.support.v4.view.GravityCompat;  
**import** android.support.v4.widget.DrawerLayout;  
**import** android.support.v7.app.ActionBar;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.support.v7.widget.GridLayoutManager;  
**import** android.support.v7.widget.RecyclerView;  
**import** android.support.v7.widget.Toolbar;  
**import** android.view.Menu;  
**import** android.view.MenuItem;  
**import** android.view.View;  
**import** android.widget.Toast;  
**import** java.io.BufferedReader;  
**import** java.util.ArrayList;  
**import** java.util.List;  
**import** java.util.Random;  
  
**public class** MainActivity **extends** AppCompatActivity {  
  
 **private** Toolbar **toolbar**;  
 **private** DrawerLayout **mDrawerLayout**;  
 **private** NavigationView **navigationView**;  
 **private** FloatingActionButton **fab**;  
  
 *//initData（）* **private** Fruit[] **fruits** = {**new** Fruit(**"Apple"**, R.drawable.***apple***), **new** Fruit(**"Banana"**, R.drawable.***banana***),  
 **new** Fruit(**"Orange"**, R.drawable.***orange***), **new** Fruit(**"Watermelon"**, R.drawable.***watermelon***),  
 **new** Fruit(**"Pear"**, R.drawable.***pear***), **new** Fruit(**"Grape"**, R.drawable.***grape***),  
 **new** Fruit(**"Pineapple"**, R.drawable.***pineapple***), **new** Fruit(**"Strawberry"**, R.drawable.***strawberry***),  
 **new** Fruit(**"Cherry"**, R.drawable.***cherry***), **new** Fruit(**"Mango"**, R.drawable.***mango***)};  
 **private** List<Fruit> **fruitList** = **new** ArrayList<>();  
 **private** FruitAdapter **adapter**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 **if** (android.os.Build.VERSION.***SDK\_INT*** >= android.os.Build.VERSION\_CODES.***LOLLIPOP***) {  
 **toolbar**=(Toolbar)findViewById(R.id.***toolbar***);  
 }  
 setSupportActionBar(**toolbar**); *//替代ActionBar* **mDrawerLayout**=(DrawerLayout)findViewById(R.id.***drawer\_layout***);  
 ActionBar actionBar=getSupportActionBar();  
 **if** (actionBar!=**null**){  
 actionBar.setDisplayHomeAsUpEnabled(**true**);  
 actionBar.setHomeAsUpIndicator(R.drawable.***ic\_menu***);  
 }  
  
 **navigationView**=(NavigationView)findViewById(R.id.***nav\_view***);  
 **navigationView**.setCheckedItem(R.id.***nav\_call***);  
 **navigationView**.setNavigationItemSelectedListener(**new** NavigationView.OnNavigationItemSelectedListener() {  
 @Override  
 **public boolean** onNavigationItemSelected(@NonNull MenuItem menuItem) {  
  
 **mDrawerLayout**.closeDrawers();  
 **return true**;  
 }  
 });  
  
 **fab**=(FloatingActionButton)findViewById(R.id.***fab***);  
 **fab**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 Snackbar.*make*(view,**"确定删除数据？"**,Snackbar.***LENGTH\_SHORT***)  
 .setAction(**"Undo"**, **new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
  
 Toast.*makeText*(MainActivity.**this**,**"数据保存"**,Toast.***LENGTH\_SHORT***).show();  
 }  
 }).show();  
 }  
 });  
  
  
  
 *//initView（）* RecyclerView recyclerView = (RecyclerView) findViewById(R.id.***recycler\_view***);  
 GridLayoutManager layoutManager = **new** GridLayoutManager(**this**, 2);  
 recyclerView.setLayoutManager(layoutManager);  
  
 *//initData* initFruits();  
 **adapter** = **new** FruitAdapter(**fruitList**);  
 recyclerView.setAdapter(**adapter**);  
 }  
  
  
 **private void** initFruits() {  
 **fruitList**.clear();  
 **for** (**int** i = 0; i < 50; i++) {  
 Random random = **new** Random();  
 **int** index = random.nextInt(**fruits**.**length**);  
 **fruitList**.add(**fruits**[index]);  
 }  
 }  
  
  
  
  
  
 @Override  
 **public boolean** onCreateOptionsMenu(Menu menu) {  
 getMenuInflater().inflate(R.menu.***toolbar***,menu);  
 **return true**;  
 }  
  
  
 @Override  
 **public boolean** onOptionsItemSelected(MenuItem item) {  
 **switch** (item.getItemId()){  
  
  
 **case** android.R.id.***home***:  
 **mDrawerLayout**.openDrawer(GravityCompat.***START***);  
 **break**;  
  
  
 **case** R.id.***backup***:  
 Toast.*makeText*(**this**,**"BackUp"**,Toast.***LENGTH\_SHORT***).show();  
 **break**;  
  
 **case** R.id.***delete***:  
 Toast.*makeText*(**this**,**"BackUp"**,Toast.***LENGTH\_SHORT***).show();  
 **break**;  
  
 **case** R.id.***settings***:  
 Toast.*makeText*(**this**,**"BackUp"**,Toast.***LENGTH\_SHORT***).show();  
 **break**;  
  
 **default**:**break**;  
  
  
  
  
 }  
 **return true**;  
 }  
}

1. 用AppBarLayout解决RecyclerView遮挡ToolBar的问题

activity\_main.xml

1. 用AppBarLayout封装ToolBar
2. 指定RecyclerView的行为
3. 指定ToolBar的行为：可以随着RecyclerView随意滑动和隐藏

*<?***xml version="1.0" encoding="utf-8"***?>*<**android.support.v4.widget.DrawerLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 android:id="@+id/drawer\_layout"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"** >  
  
  
<**android.support.design.widget.CoordinatorLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"**>  
  
  
 <**android.support.design.widget.AppBarLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"**>  
 <**android.support.v7.widget.Toolbar  
 android:id="@+id/toolbar"  
 android:layout\_width="match\_parent"  
 android:layout\_height="?actionBarSize"  
 android:background="?attr/colorPrimary"  
 android:theme="@style/ThemeOverlay.AppCompat.Dark.ActionBar"  
 app:popupTheme="@style/ThemeOverlay.AppCompat.Light"**

**app:layout\_scrollFlags="scroll|enterAlways|snap"** />  
 </**android.support.design.widget.AppBarLayout**>  
  
 <**android.support.v7.widget.RecyclerView  
 android:id="@+id/recycler\_view"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 app:layout\_behavior="android.support.design.widget.AppBarLayout$ScrollingViewBehavior"** />  
  
  
 <**android.support.design.widget.FloatingActionButton  
 android:id="@+id/fab"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="bottom|end"  
 android:layout\_margin="16dp"  
 android:src="@drawable/ic\_done"  
 app:elevation="10dp"** />  
  
</**android.support.design.widget.CoordinatorLayout**>  
  
  
  
  
 <**android.support.design.widget.NavigationView  
 android:id="@+id/nav\_view"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_gravity="start"  
 app:menu="@menu/nav\_menu"  
 app:headerLayout="@layout/nav\_header"** />  
  
  
</**android.support.v4.widget.DrawerLayout**>