```
1 <?xml version="1.0" encoding="utf-8"?>
 2 <androidx.constraintlayout.widget.ConstraintLayout 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:layout_width="match_parent"
 5
       android:layout_height="wrap_content"
 6
       tools:context=".CharityListActivity">
8
9
       <androidx.recyclerview.widget.RecyclerView</pre>
10
           android:id="@+id/recyclerView_charityList_list"
11
           android:layout_width="410dp"
           android:layout_height="198dp"
12
           android:layout_marginStart="1dp"
13
14
           android:layout_marginTop="1dp"
15
           app:layout_constraintStart_toStartOf="parent"
16
           app:layout_constraintTop_toTopOf="parent" />
17 </androidx.constraintlayout.widget.ConstraintLayout>
```

```
1 package com.example.charitysearchapi
 3 import android.content.Intent
 4 import android.view.LayoutInflater
 5 import android.view.View
 6 import android.view.ViewGroup
 7 import android.widget.TextView
8 import androidx.constraintlayout.widget.ConstraintLayout
 9 import androidx.recyclerview.widget.RecyclerView
10
11 class CharityAdapter(var dataSet: List<CharityData>) :
12
       RecyclerView.Adapter<CharityAdapter.ViewHolder>() {
13
14
15
        * Provide a reference to the type of views that you are using
16
        * (custom ViewHolder)
17
       class ViewHolder(view: View) : RecyclerView.ViewHolder(view) {
18
           val nameTextView: TextView
19
20
           val categoryTextView: TextView
21
           val cityTextView: TextView
22
           val stateTextView: TextView
23
           val websiteTextView: TextView
24
           val layout: ConstraintLayout
25
26
27
           init {
28
               nameTextView = view.findViewById(R.id.textView_charityitem_name)
29
               categoryTextView = view.findViewById(R.id.textView_charityitem_category)
30
               cityTextView = view.findViewById(R.id.textView_charityitem_city)
31
               stateTextView = view.findViewById(R.id.textView_charityitem_state)
32
               websiteTextView = view.findViewById(R.id.website_charityitem_website)
33
               layout = view.findViewById(R.id.layout_charityitem)
34
           }
35
       }
36
37
       override fun onCreateViewHolder(viewGroup: ViewGroup, viewType: Int): ViewHolder {
38
           // Create a new view, which defines the UI of the list item
39
           val view = LayoutInflater.from(viewGroup.context)
40
               .inflate(R.layout.item_charity_data, viewGroup, false)
41
42
           return ViewHolder(view)
43
       }
44
45
       override fun onBindViewHolder(holder: CharityAdapter.ViewHolder, position: Int) {
46
           //val context = holder.casesTextView.context
47
           val charityData = dataSet[holder.layoutPosition]
48
           holder.nameTextView.text = charityData.data.charityName
49
           holder.categoryTextView.text = charityData.data.category
50
           holder.cityTextView.text = charityData.data.city
51
           holder.stateTextView.text = charityData.data.state
52
           holder.websiteTextView.text = charityData.data.website
53
           holder.layout.setOnClickListener {
54
               val detailIntent = Intent(it.context, CharityDetailActivity::class.java)
55
               detailIntent.putExtra(CharityDetailActivity.EXTRA_CHARITY, charityData)
56
               it.context.startActivity(detailIntent)
           }
57
58
       }
59
60
       override fun getItemCount(): Int {
61
          return dataSet.size
62
63
64 }
```

```
1 package com.example.charitysearchapi
 2 import android.os.Parcelable
 3 import android.text.BoringLayout
 4 import kotlinx.parcelize.Parcelize
 6 @Parcelize
 7 data class CharityData (
8
       val code: Int,
9
       val msg: String,
10
       val data: Data
11
12 ) : Parcelable {
13
       val zipCode: Byte
14
           get() {
15
               TODO()
16
17
       val charityName: Byte
18
           get() {
19
               TODO()
20
21 }
22
23 @Parcelize
24 data class Data(
25
       val category: String?,
26
       val charityName: String,
27
       val url: String,
28
       val zipCode: String,
29
       val city: String?,
30
       val state: String?,
31
       val website: String,
       val missionStatement: String
32
33 ) : Parcelable, Comparable<Data> {
34
           override fun compareTo(other: Data): Int {
35
               return 0
36
           }
37
       }
38
```

```
1 package com.example.charitysearchapi
 3 import retrofit2.Call
 4 import retrofit2.http.GET
 5 import retrofit2.http.Path
 6 import retrofit2.http.Query
 7 import java.util.*
8
9 interface CharityDataService {
10
       @GET("charitysearch")
11
       fun getCharityData(
            @Query("user_key") apiKey: String,
@Query("state") state: String
12
13
14
       ) : Call<List<CharityData>>
15 }
```

File - /Users/per2/AndroidStudioProjects/CharitySearchAPI/app/src/main/java/com/example/charitySearchapi/CharityDetailActivity.kt

```
1 package com.example.charitysearchapi
 3 import androidx.appcompat.app.AppCompatActivity
 4 import android.os.Bundle
 5 import com.example.charitysearchapi.databinding.ActivityCharityDetailBinding
7
  class CharityDetailActivity : AppCompatActivity() {
8
       companion object {
9
           val EXTRA_CHARITY = "charity"
10
11
       }
12
       private lateinit var binding: ActivityCharityDetailBinding
13
14
15
       override fun onCreate(savedInstanceState: Bundle?) {
16
           super.onCreate(savedInstanceState)
17
           binding = ActivityCharityDetailBinding.inflate(layoutInflater)
18
           setContentView(binding.root)
19
20
           val charity = intent?.getParcelableExtra<CharityData>(EXTRA_CHARITY)
21
           binding.textViewDetailName.text = charity?.data?.charityName
22
           binding.textViewDetailCategory.text = charity?.data?.category
23
           binding.textViewDetailCity.text = charity?.data?.city
24
           binding.textViewDetailState.text = charity?.data?.state
25
           binding.textViewDetailWebsite.text = charity?.data?.website
26
       }
27 }
```

```
1 package com.example.charitysearchapi
  3 import android.os.Bundle
  4 import android.util.Log
  5 import androidx.appcompat.app.AppCompatActivity
  6 import androidx.recyclerview.widget.LinearLayoutManager
 7 import com.example.charitysearchapi.Constants.API_KEY
 8 import com.example.charitysearchapi.databinding.ActivityCharityListBinding
 9 import retrofit2.Call
10 import retrofit2.Callback
11 import retrofit2.Response
12
13 class CharityListActivity: AppCompatActivity() {
14
            companion object{
15
                   const val TAG = "CharityListActivity"
16
                   const val STATE = "CA"
17
18
            private lateinit var binding: ActivityCharityListBinding
19
20
            lateinit var adapter: CharityAdapter
21
22
            override fun onCreate(savedInstanceState: Bundle?) {
23
                   super.onCreate(savedInstanceState)
                   binding = ActivityCharityListBinding.inflate(layoutInflater)
24
25
                   setContentView(binding.root)
26
27
                   getCharitySearchApiCall(Constants.API_KEY, STATE)
28
29
30
            private fun getCharitySearchApiCall(api: String, state: String) {
31
                    //var charities = listOf<CharityData>()
32
                   //create an instance of Retrofit that has our base url
33
                   //and the service interface that has out get resources
34
                   val charityDataService = RetrofitHelper.getInstance().create(CharityDataService::class.java)
35
                   //create our call object
36
                   val countyDataCall = charityDataService.getCharityData(Constants.API_KEY, state)
37
                   //execute our call object
38
                    //new Callback<List<CountyData>> { //method implementations
39
                   countyDataCall.enqueue(object: Callback<List<CharityData>> {
40
                           override fun onResponse(
41
                                  call: Call<List<CharityData>>,
42
                                  response: Response<List<CharityData>>
43
                           ) {
44
                                  Log.d(TAG, "onResponse: ${response.body()}")
45
                                  if(response.body() != null){
46
                                         adapter = CharityAdapter(response.body()!!)
47
                                         adapter.dataSet =
48
                                                adapter.dataSet.sortedWith(compareByDescending<CharityData> {it.zipCode}
49
                                                        .thenByDescending { it.charityName})
50
                                  }
51
                                  else{
                                         Log.d(TAG, "body is null :(")
52
53
                                         adapter = CharityAdapter(listOf())
54
55
                                  //adapter = CountyAdapter(counties)
56
                                  binding.recyclerViewCharityListList.adapter = adapter
                                  binding.recycler View Charity List List. layout Manager = Linear Layout Manager (\textbf{this} @ algorithm of the content of the c
57
     CharityListActivity)
58
59
60
                           //what we do if the call doesn't work
61
                           override fun onFailure(call: Call<List<CharityData>>, t: Throwable) {
62
                                  Log.d(TAG, "onFailure: ${t.message}")
63
                           }
64
                   })
65
                   //all of the code here ... we might not have data yet
66
                   //can't put what to do with the data below the call
67
68
            //the sorter, make new menu item idk how to tho
69 //
                override fun onCreateOptionsMenu(menu: Menu): Boolean {
70 //
                       val inflater: MenuInflater = menuInflater
```

File - /Users/per2/AndroidStudioProjects/CharitySearchAPI/app/src/main/java/com/example/charitysearchapi/CharityListActivity.kt

```
inflater.inflate(R.menu.charitylist_menu, menu)
71 //
72 //
             return true
73 //
74 //
         override fun onOptionsItemSelected(item: MenuItem): Boolean {
75 //
            // Handle item selection
76 //
             return when (item.itemId) {
77 //
                 R.id.item_countylist_menu_sortByName -> {
78 //
                     // sort by name
79 //
                     adapter.dataSet = adapter.dataSet.sortedBy {
80 //
                         it.county
81 //
82 //
                     //adapter.dataSet.sortedWith(compareBy { it.name }, {it.ranking})
83 //
                     adapter.notifyDataSetChanged()
84 //
                     true
85 //
                 R.id.item_countylist_menu_sortByTransmissionLevel -> {
86 //
87 //
                     // sort by rank
88 //
                     adapter.dataSet = adapter.dataSet.sorted()
89 //
                     adapter.notifyDataSetChanged()
90 //
                     adapter.dataSet = adapter.dataSet.reversed()
91 //
                     adapter.notifyDataSetChanged()
92 //
                     true
93 //
94 //
95 //
                else -> super.onOptionsItemSelected(item)
96 //
             }
97 //
98 }
```

File - /Users/per2/AndroidStudioProjects/CharitySearchAPI/app/src/main/java/com/example/charitysearchapi/RetrofitHelper.kt

```
1 package com.example.charitysearchapi
 3 import retrofit2.Retrofit
 4 import retrofit2.converter.gson.GsonConverterFactory
7 object RetrofitHelper {
8
      val baseUrl = "http://data.orghunter.com/v1/"
9
       fun getInstance(): Retrofit {
10
           return Retrofit.Builder()
               .baseUrl(baseUrl)
11
12
               .addConverterFactory(GsonConverterFactory.create())
13
               .build()
14
       }
15 }
```

```
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"
       xmlns:tools="http://schemas.android.com/tools"
       android:layout_width="match_parent"
 5
       android:layout_height="match_parent"
 6
       tools:context=".CharityDetailActivity">
 7
8
 9
       <TextView
10
           android:id="@+id/textView_detail_name"
           android:layout_width="wrap_content"
11
12
           android:layout_height="wrap_content"
13
           android:text="name"
14
           tools:layout_editor_absoluteX="159dp"
15
           tools:layout_editor_absoluteY="130dp" />
16
17
       <TextView
18
           android:id="@+id/textView_detail_category"
19
           android:layout_width="wrap_content"
20
           android:layout_height="wrap_content"
21
           android:text="Category"
22
           tools:layout_editor_absoluteX="174dp"
23
           tools:layout_editor_absoluteY="241dp" />
24
25
       <TextView
26
           android:id="@+id/textView_detail_city"
           android:layout_width="wrap_content"
27
28
           android:layout_height="wrap_content"
29
           android:text="city"
30
           tools:layout_editor_absoluteX="150dp"
31
           tools:layout_editor_absoluteY="323dp" />
32
33
       <TextView
           android:id="@+id/textView_detail_state"
34
35
           android:layout_width="wrap_content"
36
           android:layout_height="wrap_content"
37
           android:text="state"
38
           tools:layout_editor_absoluteX="163dp"
39
           tools:layout_editor_absoluteY="429dp" />
40
41
       <TextView
42
           android:id="@+id/textView_detail_website"
43
           android:layout_width="wrap_content"
44
           android:layout_height="wrap_content"
45
           android:text="TextView"
46
           tools:layout_editor_absoluteX="200dp"
47
           tools:layout_editor_absoluteY="533dp" />
48 </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"
       xmlns:tools="http://schemas.android.com/tools"
 5
       android:id="@+id/layout_charityitem"
       android:layout_width="match_parent"
 6
 7
       android:layout_height="match_parent"
 8
       tools:context=".CharityDetailActivity">
 9
10
       <TextView
11
           android:id="@+id/textView_charityitem_name"
12
           android:layout_width="wrap_content"
           android:layout_height="wrap_content"
1.3
14
           android:layout_marginStart="8dp"
15
           android:layout_marginTop="8dp"
           android:text="name"
16
17
           android:textSize="24sp"
18
           app:layout_constraintStart_toStartOf="parent"
19
           app:layout_constraintTop_toTopOf="parent" />
20
21
       <TextView
           android:id="@+id/textView_charityitem_category"
22
23
           android:layout_width="wrap_content"
24
           android:layout_height="wrap_content"
25
           android:layout_marginTop="8dp"
26
           android:layout_marginEnd="8dp"
27
           android:text="category"
28
           android:textSize="20sp"
29
           app:layout_constraintEnd_toEndOf="parent"
30
           app:layout_constraintTop_toTopOf="parent" />
31
32
       <TextView
33
           android:id="@+id/textView_charityitem_city"
34
           android:layout_width="wrap_content"
35
           android:layout_height="wrap_content"
36
           android:layout_marginStart="8dp"
37
           android:layout_marginTop="8dp"
38
           android:text="city"
39
           android:textSize="20sp"
40
           app:layout_constraintStart_toStartOf="parent"
41
           app:layout_constraintTop_toBottomOf="@+id/textView_charityitem_name" />
42
43
       <TextView
44
           android:id="@+id/textView_charityitem_state"
45
           android:layout_width="wrap_content"
46
           android:layout_height="wrap_content"
47
           android:layout_marginStart="8dp"
48
           android:layout_marginTop="8dp"
49
           android:text="state"
50
           android:textSize="20sp"
           app:layout_constraintStart_toEndOf="@+id/textView_charityitem_city"
51
52
           app:layout_constraintTop_toBottomOf="@+id/textView_charityitem_name" />
53
54
       <TextView
55
           android:id="@+id/website_charityitem_website"
56
           android:layout_width="384dp"
57
           android:layout_height="28dp"
58
           android:layout_marginStart="8dp"
59
           android:layout_marginTop="8dp"
60
           android:text="website"
61
           android:textSize="16sp"
62
           app:layout_constraintStart_toStartOf="parent"
63
           app:layout_constraintTop_toBottomOf="@+id/textView_charityitem_city" />
64 </androidx.constraintlayout.widget.ConstraintLayout>
```