

Android Development



Navigation Component

Navigate

```
viewTransactionsButton.setOnClickListener { view ->  
    view.findNavController().navigate(R.id.viewTransactionsAction)  
}
```

Navigation Component

Pass Data

- Bundle
- SafeArgs

Bundle

```
viewTransactionsButton.setOnClickListener { view ->
    val bundle = Bundle()
    // put data
    view.findNavController().navigate(R.id.viewTransactionsAction, bundle)
}
```

Navigation Component

Safe Args

```
buildscript {  
    repositories {  
        google()  
    }  
    dependencies {  
        val nav_version = "2.5.0"  
        classpath("androidx.navigation:navigation-safe-args-gradle-plugin:$nav_version")  
    }  
}
```

```
plugins {  
    id("androidx.navigation.safeargs.kotlin")  
}
```

Navigation Component

Origin Fragment

```
val action = OriginFragmentDirections.confirmationAction(valueToPass)  
v.findNavController().navigate(action)
```

Destination Fragment

```
val args: FragmentArgs by navArgs()
```

Retrofit



<https://square.github.io/retrofit/>

Retrofit

API requests

GET

POST

PUT

DELETE

Retrofit



Retrofit

Libraries

Permissions

Retrofit Instance

Retrofit Service (Interface)

Response callback



API REQUEST

The diagram consists of a vertical green curly bracket on the left side, spanning the height of the five text items listed to its left. To the right of the bracket, the text 'API REQUEST' is centered vertically relative to the bracket's span.

Retrofit

Libraries

```
implementation 'com.squareup.retrofit2:retrofit:2.9.0'  
implementation 'com.squareup.retrofit2:converter-gson:2.9.0'  
implementation "com.squareup.okhttp3:okhttp:4.9.0"
```

Permissions

```
<uses-permission android:name="android.permission.INTERNET"/>
```

Retrofit

Retrofit Instance

```
val api:YourService by lazy {  
    Retrofit  
        .Builder()  
        .baseUrl("baseurl/")  
        .addConverterFactory(GsonConverterFactory.create())  
        .build()  
        .create(YourService::class.java)  
}
```

Retrofit

Retrofit Service

Interface

```
@GET("endpoint")  
fun yourFunction():Call<T>
```

Response callback

```
object :Callback<T>{  
    override fun onResponse(call: Call<T>, response: Response<T>) {  
        if (response.isSuccessful){  
  
        }  
    }  
  
    override fun onFailure(call: Call<T>, t: Throwable) {  
  
    }  
}
```

Retrofit

URL Manipulation

```
@GET("list/{id}/userDetail")  
fun groupList(@Path("id") int userId):Call<List<User>>
```

```
@POST("users/new")  
fun createUser(@Body User user):Call<User>
```

```
@GET("Search")  
fun getProducts(@Query("one") String one, @Query("two") String two, @Query("key") String key):Call<Products>  
//https://api.test.com/Search?one=Whatever&two=here&key=SFSDf24242353434
```