

# Kotlin Android Intents



CS 402: Mobile Development



# Intents

Intents are the objects that can launch additional Activities (plus a lot more).

Create them, load them up with data and have them launch new Activities.

Once created, use a new Intent to return data back.

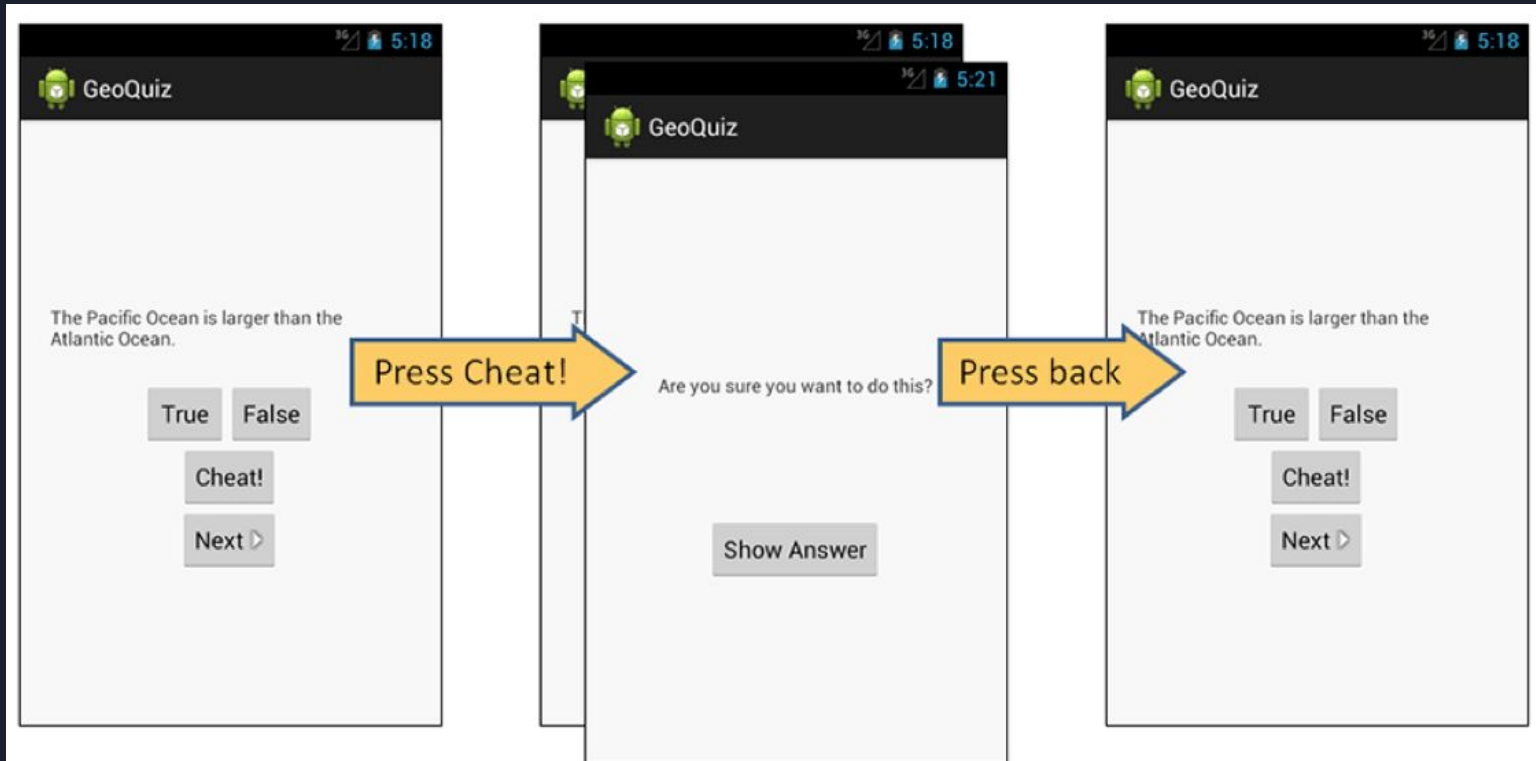


# Android Intents

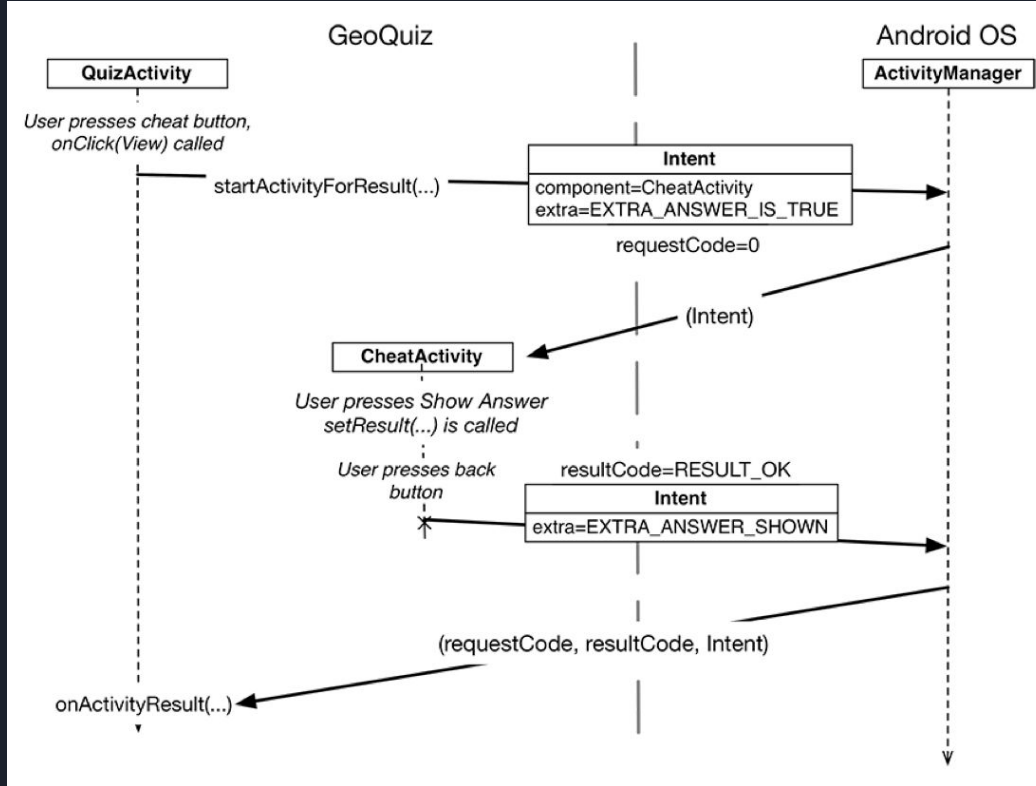
From the docs:

An intent is an abstract description of an operation to be performed. It can be used with `startActivity` to launch an `android.app.Activity`, `broadcastIntent` to send it to any interested `BroadcastReceiver` components, and `Context.startService` or `Context.bindService` to communicate with a background `android.app.Service`.

# Activity Stack



# Activity Interaction Diagram





# Android Intents

## Explicit

Defining of a new Intent and passing that to `ActivityManager` to start the new Activity.

```
val intent = Intent(this, OtherActivity::class.java)
```

```
startActivity(intent)
```



# Android Activities

Subclass of `android.app.Activity` or some version of it

Applications can have 0, 1 or many activities

Defines and manages the user interface

Basically, one activity will define each screen



# Passing Data between Activities in Android

```
Intent.putExtra( NAME_CONSTANT:String, VALUE)
```

**NAME\_CONSTANT** should be namespaced (ex: com.company.appname.name). Define in child activity as public static final so you can access it from parent.

**VALUE** can be any primitive type (int, float, bool, etc), String, Objects with Serializable implemented.





## 0 - Retrieving Data from Parent

```
// In child Activity's onCreate

override fun onCreate(savedInstanceState: Bundle?) {

    val stringFromActivity:String = intent.getStringExtra("thekey")

    val person:Person = intent.getSerializableExtra("person") as
    Person

}
```



# 1 - Retrieving Data from Child

// For parents awaiting responses from their children, instead of

// startActivity we use:

`startActivityForResult(intent, 999) // Intent, ID`



## 2 - Retrieving Data from Child

```
override fun onCreate(savedInstanceState: Bundle?) {  
  
    super.onCreate(savedInstanceState)  
  
    setContentView(R.layout.activity_main2)  
  
  
    val stringFromActivity:String =  
intent.getStringExtra("thekey")  
  
    val person:Person = intent.getSerializableExtra("person") as  
Person  
  
    //..  
  
    setResult(Activity.RESULT_OK)
```



## 3 - Retrieving Data from Child

// Back in Parent Activity

```
override fun onActivityResult(requestCode: Int, resultCode: Int, data: Intent?)  
{  
    super.onActivityResult(requestCode, resultCode, data)  
}
```