

Intents



Intents



- Start an Activity
 - A button click starts a new Activity for text entry
 - Clicking Share opens an app that allows you to post a photo
- Start a Service
 - Initiate downloading a file in the background
- Deliver Broadcast
 - The system informs everybody that the phone is now charging

Basic explicit and implicit Intents

```
val explicitIntent = Intent(this, MyActivity::class.java)
```

```
// implicit intents:
```

```
val callButtonIntent = Intent(Intent.ACTION_CALL_BUTTON)
```

```
val urlIntent = Intent(Intent.ACTION_VIEW, Uri.parse("http://www.google.com"))
```

```
val phoneIntent = Intent(Intent.ACTION_DIAL, Uri.parse("tel:8005551234"))
```

```
// use:
```

```
startActivity(intent)
```

```
// To use later (ex: in Notifications)
```

```
val pendingIntent = PendingIntent.getActivity(this, 1, intent,  
FLAG_UPDATE_CURRENT) // Parcelable  
pendingIntent.send()
```

Sending and Receiving Data

```
// Preparing data in sending Activity:
val intent = Intent(this, SecondActivity::class.java)

intent.data = Uri.parse("http://www.google.com") // Web URL
intent.data = Uri.fromFile(File("/file_path/file.jpg")) // File URI
intent.putExtra("level", 406) // Int extra
val array = arrayOf("Rice", "Beans", "Fruit")
intent.putExtra("food", array) // Array extra

val bundle = Bundle() // Use bundle to prepare a lot of data
bundle.putFloat("percent", 58f) // Float data
intent.putExtras(bundle) // Put whole bundle

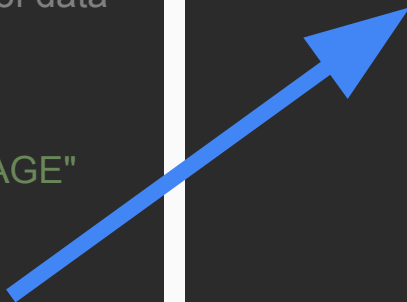
val UNIQUE_KEY = packageName + ".extra.MESSAGE"
intent.putExtra(UNIQUE_KEY, "Hello Activity!")

startActivity(intent)
```

```
// Getting data in receiving activity:

val uri = intent.data
val level = intent.getIntExtra("level", 0)
val food = intent.getStringArrayExtra("food")

val bundle = intent.extras
val percent = bundle.getFloat("percent")
```



Requesting and using Activity “Results”

// In requesting Activity

```
val intent = Intent(this, SecondActivity::class.java)
const val UNIQUE_REQUEST_CODE = 666
startActivityForResult(intent, UNIQUE_REQUEST_ID)
```

//In requested Activity

```
const val EXTRA_REPLY = "reply_key"
intent.putExtra(EXTRA_REPLY, "Done !")
setResult(RESULT_OK, intent)
finish()
```

```
public override fun onActivityResult(
requestCode: Int, resultCode: Int, data: Intent?) {
    super.onActivityResult(requestCode, resultCode, data)
    if (requestCode == UNIQUE_REQUEST_CODE) {
        if (resultCode == Activity.RESULT_OK) {
            val reply = data!!.getStringExtra(SecondActivity.EXTRA_REPLY)
            // ... do something with the data
        }
    }
}
```

Specifying implicit intents

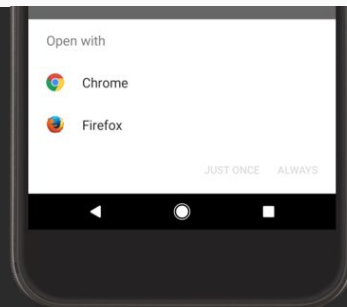
```
val intent = Intent(Intent.ACTION_WEB_SEARCH)
intent.putExtra(SearchManager.QUERY, "query")
```

```
val intent = Intent(Intent.ACTION_CREATE_DOCUMENT)
intent.type = "application/pdf" // set MIME type
intent.addCategory(Intent.CATEGORY_OPENABLE)
```

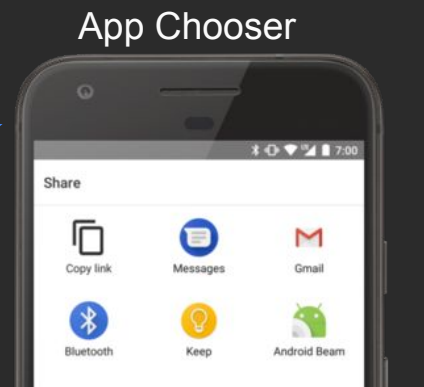
```
// Check if that intent can be handled !
```

```
if (intent.resolveActivity(packageManager) != null) {
    startActivity(intent) // if no result needed, otherwise: ↴
    startActivityForResult(intent, ACTIVITY_REQUEST_CREATE_FILE)
}
```

```
val intent = Intent(Intent.ACTION_SEND)
val chooserIntent = Intent.createChooser(intent, "Chooser Title")
if (intent.resolveActivity(packageManager) != null) { startActivity(chooserIntent) }
```



Disambiguation Dialog



App Chooser

Receiving an Implicit Intent

```
<activity android:name="ShareActivity">
  <intent-filter>
    <action android:name="android.intent.action.SEND" />
    <action android:name="android.intent.action.SEND_MULTIPLE"/>
    <category android:name="android.intent.category.DEFAULT" />
    <data android:mimeType="text/plain" />
    <data android:mimeType="image/*" />
    <data android:mimeType="video/*" />
  </intent-filter>
</activity>
<activity android:name="BrowserActivity">
  <intent-filter>
    <action android:name="android.intent.action.VIEW" />
    <category android:name="android.intent.category.BROWSABLE" />
    <data android:scheme="https" />
    <data android:host="developer.android.com" />
  </intent-filter>
  <intent-filter>
    <category android:name="android.intent.category.LAUNCHER" />
  </intent-filter>
</activity>
```