Intent

Thực hiện bởi Nhóm 6

Mục lục

01

Intent là gì?

Phân loại Intent

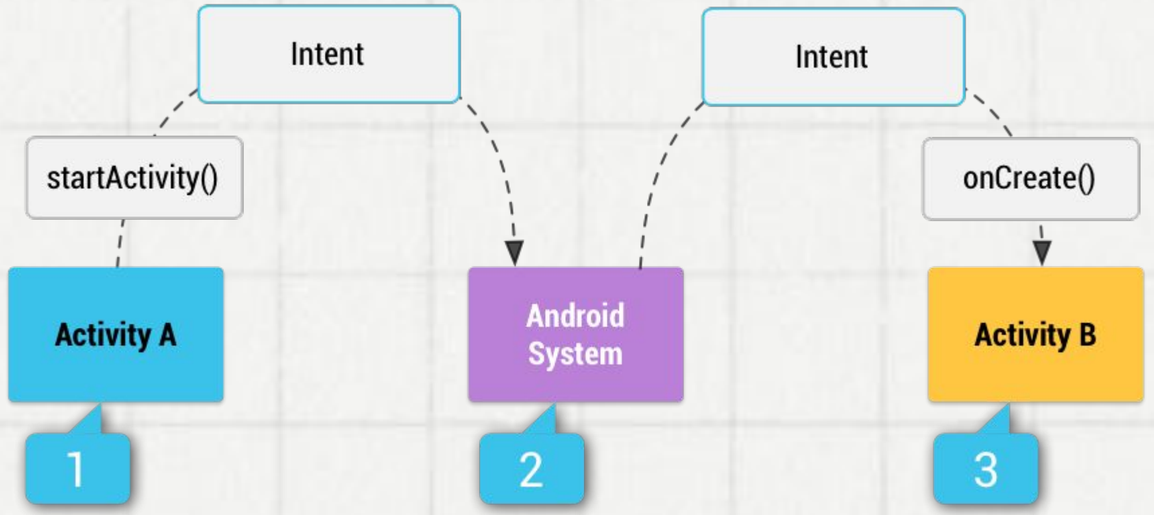
02

Cách gửi Intent

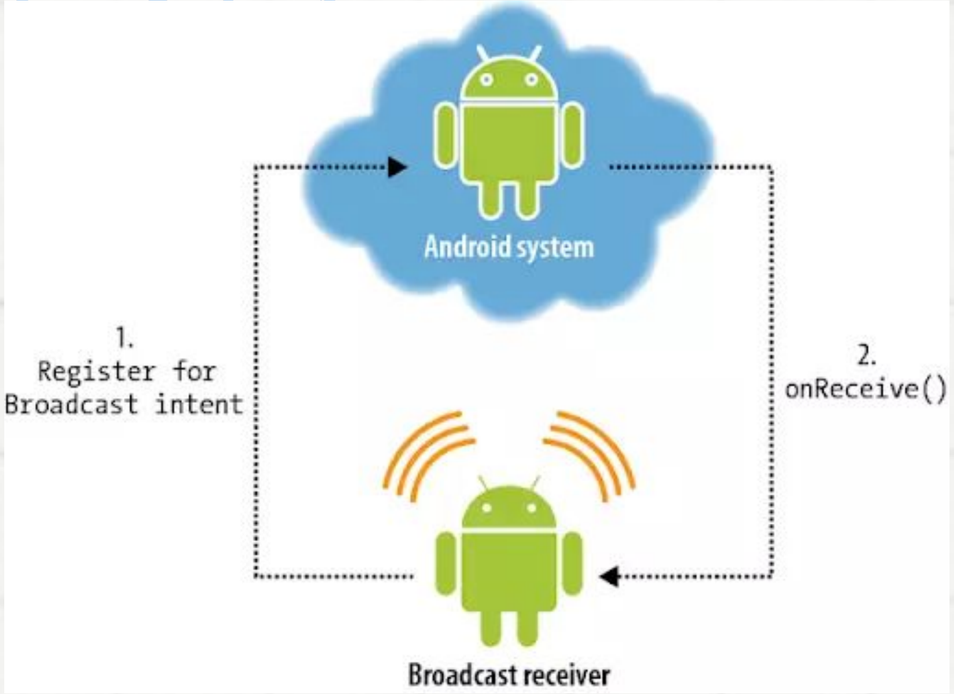
Intent

- Intent là những object tin nhắn không đồng bộ có thể sử dụng để yêu cầu hành động từ các thành phần Android khác

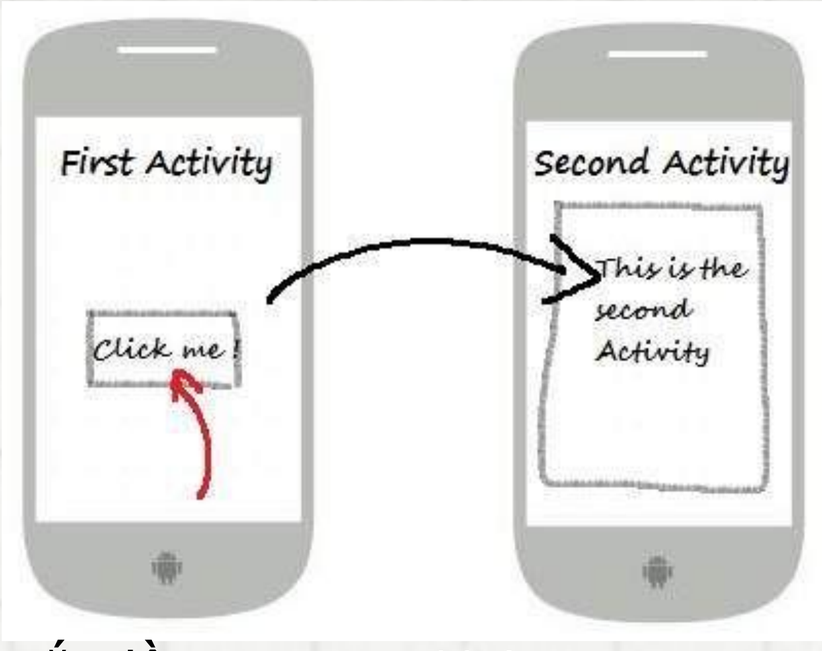
- Có 2 loại Intent:
  - Intent tường minh (Explicit Intent)
  - Intent không tường minh (Implicit Intent)



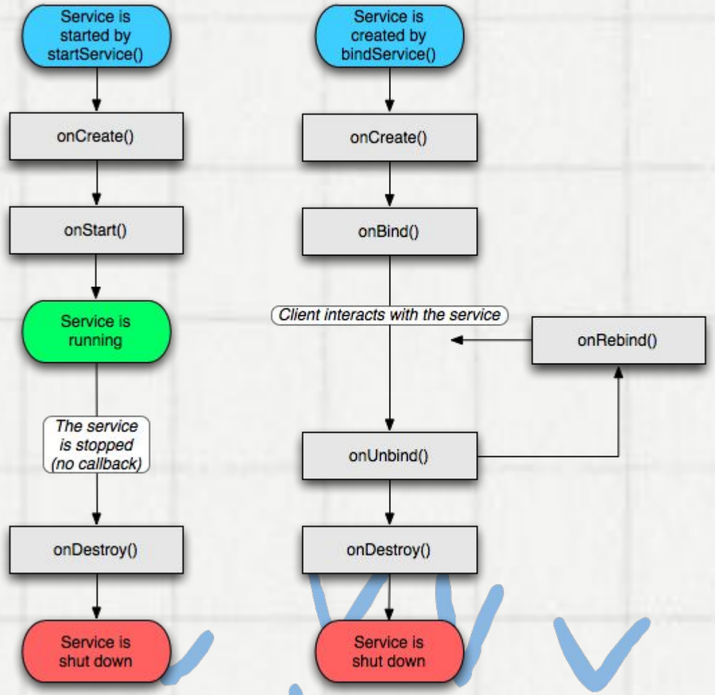
Intent có thể được sử dụng để:



Broadcast tới những *BroadcastReceiver* phù hợp



Bắt đầu 1 activity khác: *startActivity()*



Bắt đầu 1 service *Context.startService(Intent)*

Explicit Intent

```
val intent = Intent( packageContext: this, OrderActivity::class.java)
startActivity(intent)
```

```
override fun onOptionsItemSelected(item: MenuItem): Boolean {
    when (item.itemId) {
        R.id.item1 -> startActivity(Intent( packageContext: this, OrderActivity::class.java))
        R.id.item2 -> startActivity(Intent( packageContext: this, SubActivity::class.java))
        else -> finish()
    }
```

Explicit Intent

```
D:\Users\DucNM\Android_Studio\SDK\platform-tools>adb shell
emu64x:/ $ pm list packages | grep youtube
package:com.google.android.apps.youtube.music
package:com.google.android.youtube
emu64x:/ $
```

```
val intent = Intent(Intent.ACTION_MAIN)
intent.`package` = "com.google.android.youtube"
startActivity(intent)
```

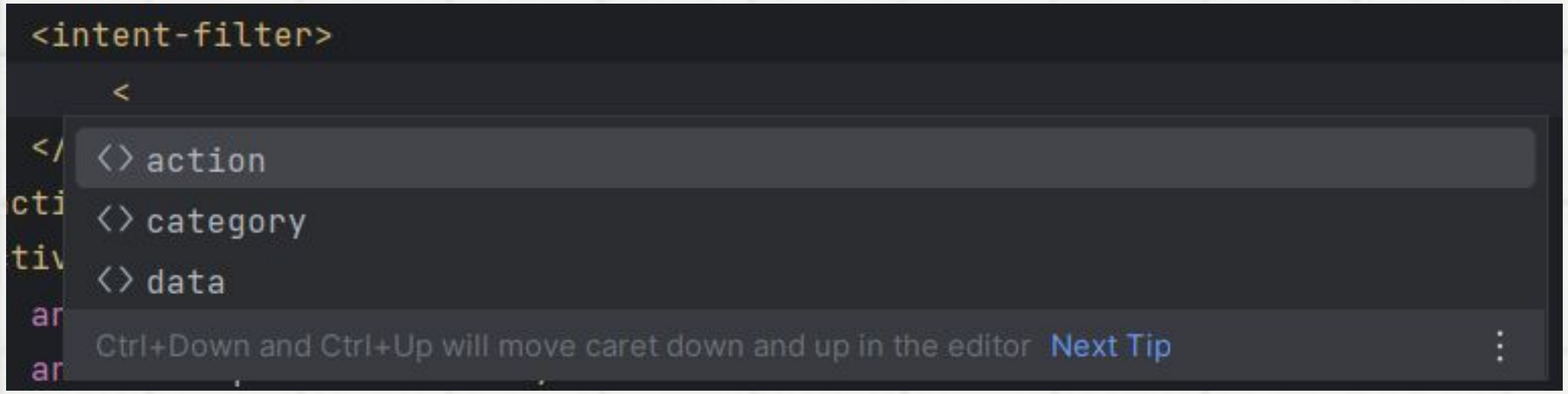
Implicit Intent

```
val uri: Uri = Uri.parse( uriString: "smsto:$phone");
val intent = Intent(Intent.ACTION_SENDTO, uri);
intent.putExtra( name: "sms_body", smsOrder);
startActivity(intent)
```

```
val intent = Intent(Intent.ACTION_SEND).apply { this: Intent
    type = "text/plain"
    putExtra(Intent.EXTRA_EMAIL, arrayOf("trinhlk@vnu.edu.vn"))
    putExtra(Intent.EXTRA_SUBJECT, value: "Test Email")
    putExtra(Intent.EXTRA_TEXT, value: "Hello World!")
```

Intent Information

- Component Name
- *Action*
- Data => *Type*
- *Category*
- Extras Flag




```
<intent-filter>
    <action android:name="android.intent.action.MAIN" />
    <category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
```

Intent Resolution

Intent Information

The primary pieces of information in an intent are:

- **action** -- The general action to be performed, such as `ACTION_VIEW`, `ACTION_EDIT`, `ACTION_MAIN`, etc.
- **data** -- The data to operate on, such as a person record in the contacts database, expressed as a `Uri`.

Some examples of action/data pairs are:

- `ACTION_VIEW` ***content://contacts/people/1*** -- Display information about the person whose identifier is "1".
- `ACTION_DIAL` ***content://contacts/people/1*** -- Display the phone dialer with the person filled in.
- `ACTION_VIEW` ***tel:123*** -- Display the phone dialer with the given number filled in. Note how the VIEW action does what is considered the most reasonable thing for a particular URI.
- `ACTION_DIAL` ***tel:123*** -- Display the phone dialer with the given number filled in.
- `ACTION_EDIT` ***content://contacts/people/1*** -- Edit information about the person whose identifier is "1".
- `ACTION_VIEW` ***content://contacts/people/*** -- Display a list of people, which the user can browse through. This example is a typical top-level entry into the Contacts application, showing you the list of people. Selecting a particular person to view would result in a new intent { `ACTION_VIEW` ***content://contacts/people/N*** } being used to start an activity to display that person.

Intent Information

- Categories: LAUNCHER, DEFAULT, BROWSABLE, HOME, PREFERENCE…

- Type:
  - URI (data)
  - Explicitly type
  - Scheme (http: or mailto:...)

```
val uri: Uri = Uri.parse( uriString: "smsto:$phone");
val intent = Intent(Intent.ACTION_SENDTO, uri);
intent.putExtra( name: "sms_body", smsOrder);
startActivity(intent)
```

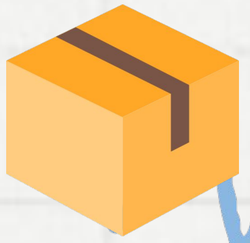
Intent Information: Extras

Bundle Object

```
putExtra
putExtra(name: String!, value: IntArray?)                    Intent
putExtra(name: String!, value: ByteArray?)                   Intent
putExtra(name: String!, value: CharArray?)                   Intent
putExtra(name: String!, value: LongArray?)                   Intent
putExtra(name: String!, value: FloatArray?)                  Intent
putExtra(name: String!, value: Parcelable?)                  Intent
putExtra(name: String!, value: ShortArray?)                  Intent
putExtra(name: String!, value: DoubleArray?)                 Intent
putExtra(name: String!, value: BooleanArray?)                Intent
putExtra(name: String!, value: CharSequence?)                Intent
putExtra(name: String!, value: Serializable?)                Intent
Press Ctrl+. to choose the selected (or first) suggestion and insert a dot afterwards  Next Tip
```

```
getFloatExtra(name: String!, defaultValue: Float)            Float
getIntArrayExtra(name: String!)                              IntArray?
getIntExtra(name: String!, defaultValue: Int)                Int
getIntegerArrayListExtra(name: String!)                      ArrayList<Int!>?
getLongArrayExtra(name: String!)                             LongArray?
getLongExtra(name: String!, defaultValue: Long)              Long
getParcelableArrayExtra(name: String?, cla…                  Array<(out) T!>?
getParcelableArrayListExtra(name: String?, c…                ArrayList<T!>?
getParcelableExtra(name: String?, clazz: Class<T!>)          T?
getSerializableExtra(name: String?, clazz: Class<T!>)        T?
getShortArrayExtra(name: String!)                            ShortArray?
Press Enter to insert, Tab to replace  Next Tip
```

Serializable



Parcelable

Intent Information: Extras

```kotlin
package com.example.app1

import android.os.Parcelable
import kotlinx.parcelize.Parcelize

@Parcelize
data class Person(val name: String, val age: Int) : Parcelable
```

```kotlin
override fun onNewIntent(intent: Intent?) {
    super.onNewIntent(intent)
}
```

```kotlin
val myPerson = Person( name: "Minh",  age: 90)
val intent = Intent( packageContext: this, SubActivity::class.java).apply { this: Intent
    putExtra( name: "person", myPerson)
}
startActivity(intent)
```

```kotlin
val myPerson: Person = if(Build.VERSION.SDK_INT >= Build.VERSION_CODES.TIRAMISU)
    intent?.getParcelableExtra( name: "person", Person::class.java)!!
else
    intent?.getParcelableExtra<Person>( name: "person")!!
```

Cảm ơn mọi người đã lắng nghe!

Thực hiện bởi Nhóm 6