

Intents Role in Android

Interaction between application components

What is intent?

- An intent is a messaging object you can use to request an action from
 - Other components from the same app
 - Other components of other apps
- Components of an android app are:

Activities

Services

Content Providers

Broadcast Receivers

Intents usage

To start an
activity

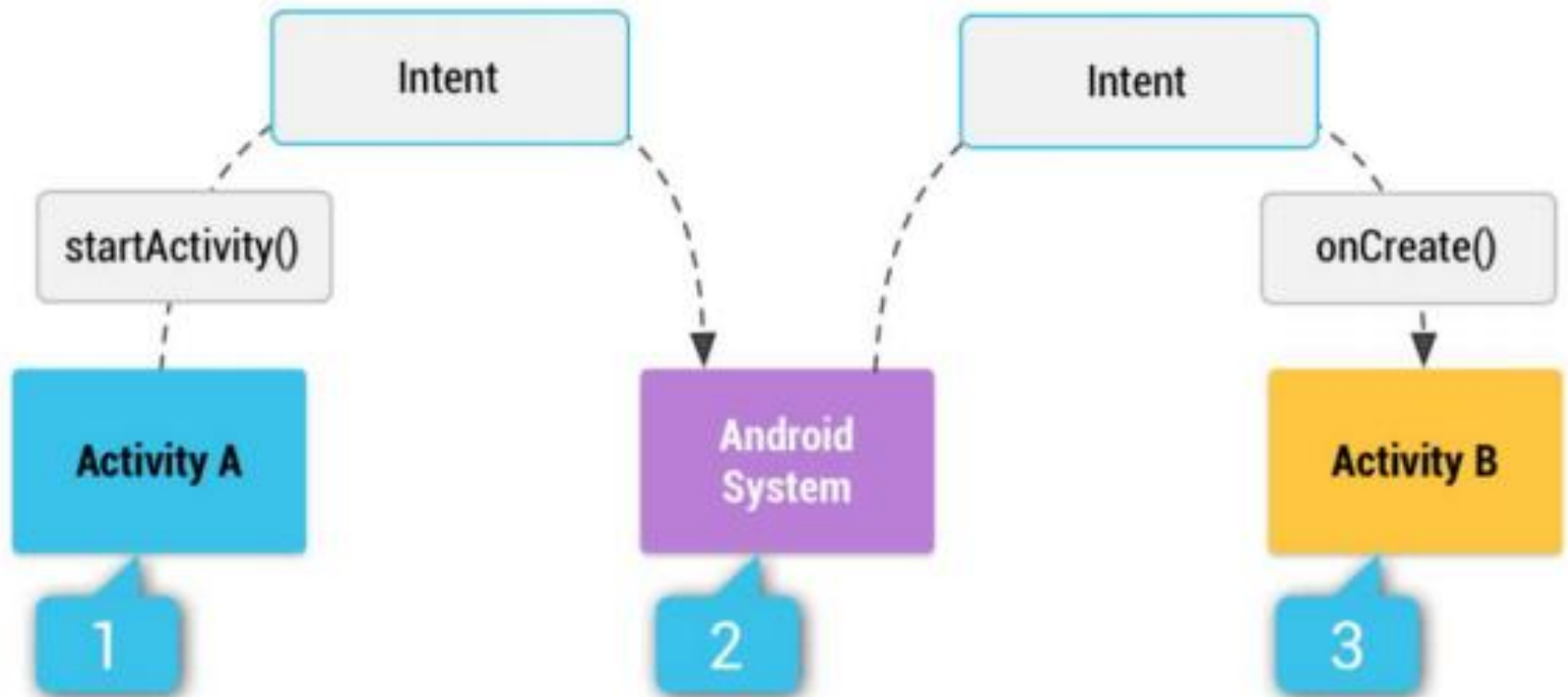
- `startActivity(Intent intent)`
- `startActivityForResult(Intent intent)`

To start a
Service

- `startService(Intent intent)`

To Deliver a
Broadcast

Using intents to start activities



Intent Types



Explicit

Implicit

Example of Explicit Intent

```
// Executed in an Activity, so 'this' is the Context  
// The fileUrl is a string URL, such as "http://www.example.com/image.png"  
Intent downloadIntent = new Intent(this, DownloadService.class);  
downloadIntent.setData(Uri.parse(fileUrl));  
startService(downloadIntent);
```

The [Intent\(Context, Class\)](#) ([/reference/android/content/Intent.html#Intent\(android.content.Context, java.lang.Class<?>\)](#)) constructor supplies the app [Context](#) ([/reference/android/content/Context.html](#)) and the component a [Class](#) ([/reference/java/lang/Class.html](#)) object. As such, this intent explicitly starts the `DownloadService` class in the app.

Example of Implicit Intent

```
// Create the text message with a string
Intent sendIntent = new Intent();
sendIntent.setAction(Intent.ACTION_SEND);
sendIntent.putExtra(Intent.EXTRA_TEXT, textMessage);
sendIntent.setType(HTTP.PLAIN_TEXT_TYPE); // "text/plain" MIME type

// Verify that the intent will resolve to an activity
if (sendIntent.resolveActivity(getPackageManager()) != null) {

    startActivity(sendIntent);
}
```

Note: In this case, a URI is not used, but the intent's data type is declared to specify the content carried by the extras.