




# SMART DEVICE PROGRAMMING

6133

# DATA PASSING BETWEEN ACTIVITIES USING INTENT

- ✓ In the first (sending) activity:
  1. Create the Intent object.
  2. Put data or extras into that intent.
  3. Start the new activity with `startActivity()`.
  
- ✓ In the second (receiving) activity:
  1. Get the intent object the activity was started with.
  2. Retrieve the data or extras from the Intent object.

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- ✓ You can use either intent data and intent extras to pass data between the activities.
  - ✓ The intent data can hold only one piece of information. A URI representing the location of the data you want to operate on.
  - ✓ That URI could be a web page URL (`http://`), a telephone number (`tel://`), a geographic location (`geo://`) or any other custom URI you define.
  - ✓ Intent extras are for any other arbitrary data you want to pass to the started activity.
  - ✓ To put data into the intent extras you can use any of the Intent class's `putExtra()` methods, or create your own bundle and put it into the intent with `putExtras()`.

- ✓ To add data to an explicit intent from the originating activity, create the intent object

```
Intent messageIntent = new Intent(this, ShowMessageActivity.class);
```

- ✓ Use a putExtra() method with a key to put data into the intent extras.
- ✓ The Intent class defines many putExtra() methods for different kinds of data:


```
messageIntent.putExtra("msg", "this is my message");
```

```
messageIntent.putExtra("x", 100);
```

```
messageIntent.putExtra("y", 500);
```

- ✓ Start the activity with the intent as usual:

```
startActivity(messageIntent);
```

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- ✓ When you start an activity with an intent, the started activity has access to the intent and the data it contains.
  - ✓ To retrieve the intent the activity was started with, use the `getIntent()` method:

```
Intent intent = getIntent();
```

- ✓ Use `getData()` to get the URI from that intent:

```
Uri locationUri = getData();
```

- ✓ To get the extras out of the intent, you'll need to know the keys for the key/value pairs.
- ✓ You can use the standard Intent extras if you used those, or you can use the keys you defined in the originating activity
- ✓ Use one of the `getStringExtra()` methods to extract extra data out of the intent object:

```
String message = intent.getStringExtra("msg");
```

```
int positionX = intent.getIntExtra("x");
```

```
int positionY = intent.getIntExtra("y");
```