## Working with Android Tools and Testing

#### WORKING WITH THE CORE TOOLS AND FEATURES



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#### What to Expect from This Module



**Android Studio Overview** 

**Developer Productivity** 

**Program Execution and Debugging** 

**Instant Run** 

**Resolving Unhandled Exceptions** 

Logcat



#### Android Studio

#### Primary Android development tool

#### Handles installing the things we need

- Android SDK
- JDK
- Other Android development tools

Built on IntelliJ IDEA technology



#### Android Studio



Code development & UI design

**Developer productivity** 

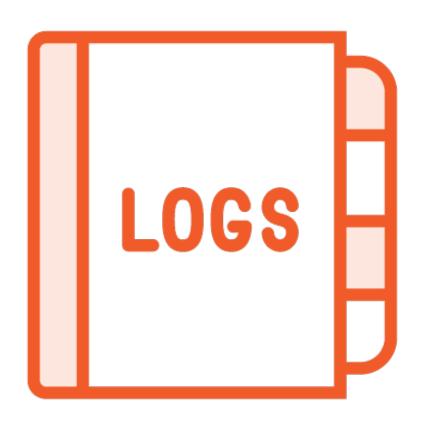
Code deployment and execution

**Debugging** 

**Build system** 

**Testing** 





#### Logcat

- System for recording log information

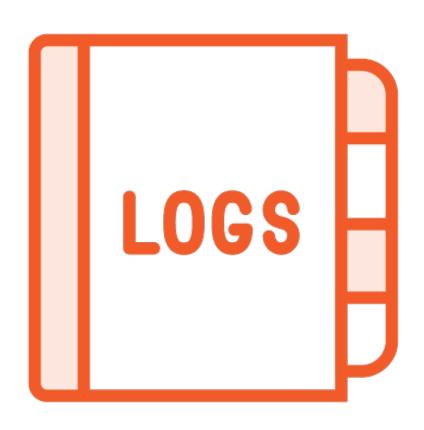
#### Log class

- Provides methods for writing to logcat
- Includes a tag with each message
  - Commonly use class name as tag

#### **Android Monitor**

- Displays logcat messages
- Filterable
- Searchable





#### Messages are organized into levels

- Indicates relative severity

#### Log class

- Provides methods for each level

#### Viewing messages

- Messages are labeled with level
- Can limit which levels are displayed
- Shows messages >= selected severity



# More Severe

### Logcat Levels



More Inclusive

Level	Label	Log Method
Verbose	V	Log.v
Debug	D	Log.d
Info	I	Log.i
Warning	W	Log.w
Error	E	Log.e
Assert	A	Log.wtf



#### Summary



#### **Android Studio**

- Central tool for Android development

#### **Developor Productivity**

- Refactoring
- Code generation
- Customizable to developer style



#### Summary



#### Program execution and debugging

- Handles installing and running app
- Breakpoints and code stepping
- Viewing variables
- On-the-fly statement evaluation

#### **Instant Run**

- Accelerates deploying code changes
- Does just enough to apply changes
- Often allows app to keep running



#### Summary



#### Resolving unhandled exceptions

- Crash information in Android Monitor
- Shows exception and call stack
- Provides links to app source code lines

#### Logcat

- System for recording log information
- Written to with Log class
- Viewable in Android Monitor

