# **Conditional Logic, Looping, and Arrays**

## What to Expect in This Module

* Conditional logic
* Basic looping
* Arrays
* For-each loop
* The switch statement

## Notes

Conditional Assignment

Assign a value to a variable based on the result of a condition

Result = condition ? true-value : false-value;

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## Summary

# **Variables, Data Types, and Math Operators**

## What to Expect in This Module

* Variables
* Primitive data types
* Arithmetic operators
* Type conversion

## Summary

* Variables are strongly typed in Java
* Primitive types
* Integer types, floating point types, char type, Boolean type
* Math operators
* Basic operators, postfix/prefix operators, compound assignment operators
* Math operators follow a well-defined order of precedence
* Type conversions
* Compiler can automatically apply widening type conversions
* Use type casting to explicitly perform type conversions

# **Creating a Simple App**

## What to Expect in This Module

* Creating your first IntelliJ project
* Running programs from the command line
* Statement and comment syntax
* Introduce packages
* Creating and running a NetBeans project

## Summary

* Execute programs from the command line with the “java” command
* Remember to use the full class name including the package name
* On Windows must include JRE bin folder in Path environment variable
* Programs are made up of statements
* Statements end with a semicolon
* Parts separated by zero or more whitespaces
* Use comments to add notes and hide statements from the compiler
* Packages provide organization
* Assure uniqueness
* Most IDE’s ties source code file structure to package names

# **Introduction and Setting up You Environment**

## What to Expect in This Module

* Strong foundation in the Java language
* Hands-on
* Java syntax, constructs, concepts, and usage
* Language skills to work effectively in any Java-based environment
* Java SE
* Java EE
* Java FC
* Java ME
* Android

## Summary

* Java is a language and a runtime environment
* Specific environment features may vary (Java SE/ME/EE, JavaFX, Android)
* Language remains pretty consistent
* End-users require the Java Runtime Environment (JRE)
* Developers require the Java Development Kit (JDK)
* Many Integrated Development Environments (IDE) are available