

Module 1 - Lecture 5

Command Line Programs



Review

- Arrays
- Loops
- Unary operators and shortcuts



Other Loops

```
while (... condition ...)  
{  
    // runs while condition is true  
}
```

```
do  
{  
    // runs at least once  
    // then while condition is true  
} while (... condition ...);
```



Other Loops

```
for(<data_type> <variable_name> : <array_of_data_type>
{
    // runs from the start of the array until the end of the
    // array. Upon each iteration, <variable_name> is populated
    // with the next element in the array.
}
```

```
int[] nums = { 1, 2, 3, 4 };
for(int num : nums)
{
    System.out.println(num);
}
```



That's a lot of ifs!

```
String name = ...;  
if (name == "Billie") {  
    // code here  
}  
else if (name == "Alex") {  
    // code here  
}  
else if (name == "Skylar") {  
    // code here  
}  
else if (name == "Avery") {  
    // code here  
}  
else {  
    // code here  
}
```



Use a switch case statement!

```
String name = ...;  
switch (name) {  
    case "Billie":  
        // code here  
        break;  
    case "Alex":  
        // code here  
        break;  
    case "Skylar":  
        // code here  
        break;  
    case "Avery":  
        // code here  
        break;  
    default:  
        // equivalent to else  
}  
}
```



Command Line Programs

- Reading in data
- Writing out data
- Parsing data



Packages

- A package is a namespace that organizes a set of related code.
- Conceptually similar to folders on a file system.
- We can create, and have created our own e.g. `com.techelevator`
- Java also provides A LOT of packages for us to use



Packages cont...

- Our programs, by default, include the package that we define AND the package `java.lang`.
- `java.lang` includes things like
 - Arrays,
 - Primitive types
 - Strings
 - System
 - and more...
- What happens when we need to use more of what Java offers?



Importing Packages

- When we wish to use another package of code from Java or another source, we will use an import statement.

Examples of valid import statements:

import java.util.Scanner; // imports the Scanner class

import java.util.*; // imports all classes in the java.util subpackage

import static java.lang.Math; // imports static members from the Math class



Fully Qualified Packages

- Rather than importing a class, you may instead use its fully qualified name within your code.
- This becomes necessary when you have two packages containing the same class name, and you wish to use that class.

A fully qualified name looks like this:

`java.lang.String` OR `java.util.Scanner`



Let's Code!

Equality

- `==` vs. `equals()`



Pair exercises!

- TPS Reports
 - Tech Skill
 - Participation
 - Social



QUESTIONS?

