



CMPINF0401

Recitation

TUESDAYS 11:00-12:50

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Overview

- ▶ In-Person learning starts this week
- ▶ Code blocks
- ▶ If Statements
- ▶ Assignment 1
- ▶ Lab 3

In-Person Learning

- ▶ This recitation will be help in CL116.
- ▶ If we're told to go hybrid, I'll continue using the same Zoom link.
- ▶ Office hours will stay online this week but move to in-person next week.
 - ▶ 5806 Sennot Sq.
 - ▶ This may change if more rooms open.
 - ▶ 11:30-1 on Wednesday
 - ▶ 12:30-2 on Thursday

Code Blocks

- ▶ Code blocks in Java keep everything together that needs to stay together.
- ▶ For example, with if-statements, those are a “block” of code. Everything in the if-statement is one “block”
 - ▶ If you try to use a variable that was declared in an if statement outside of the if statement, you won’t be able to because that variable is scoped to only be a part of that if-statement.
 - ▶ The same holds true for for-loops, methods, and so on.

Code Blocks

```
public class scopingExample {  
    Run | Debug  
    public static void main(String[] args) {  
        int x = 26  
  
        while (true)  
        {  
            System.out.println(x);  
            int y = 1;  
            break;  
        }  
  
        System.out.println(y);  
    }  
}
```

This statement will
cause an error

} y can only
be seen
in this
while
loop

x can be seen
all throughout
main

If structures

- ▶ Simpler than you might think...
- ▶ If this is true, do this. Otherwise, do that.

```
int number = 55;

if (number > 50) {
    System.out.println("This will print");
}
else {
    System.out.println("This will not print");
}
System.out.println("This will also print");
```

What goes in an if statement?

Condition	Meaning
<code>a == b</code>	Equal to
<code>a > b</code>	Greater than
<code>a < b</code>	Less than
<code>a >= b</code>	Greater than or equal to
<code>a <= b</code>	Less than or equal to
<code>a != b</code>	Not equal to
<code>str1.equals(str2)</code>	Seeing if strings are equal
<code>str1.equalsIgnoreCase(str2)</code>	Seeing if strings are equal while ignoring case sensitivity

What goes in an if statement?

```
boolean isRaining = true;
if (isRaining) {
    System.out.println("It is raining");
}

boolean isSunny = false;
if (!isSunny) {
    System.out.println("It is raining");
}

String compareOne = "string";
String compareTwo = "string";

if (compareOne.equals(compareTwo)) {
    System.out.println("These strings are equal");
}
```


If Statements Example

- ▶ [LetterGradeTest.java](#)
 - ▶ Provided by Professor Devine

Lab 3

- ▶ Assignment:
 - ▶ https://canvas.pitt.edu/courses/127916/files/8050392?module_item_id=2735250
- ▶ I suggest using LetterGradeTest.java ([on Canvas](#)) as a starting point.
 - ▶ You're given the scores and the grades that are needed to obtain each score. Using those, make the proper if else-if statements to set the grade to the correct value.
 - ▶ Be sure that you're using the proper signs too in your if-statements (greater than vs. greater than or equal to)
- ▶ It's best to use a different datatype for grade because chars only hold one character.

Assignment 1

- ▶ Assignment:
 - ▶ https://canvas.pitt.edu/courses/127916/files/8256163?module_item_id=2824697
- ▶ For this assignment, you're getting data from the user and doing calculations
- ▶ Be sure to use the proper datatype and the proper `.next()` when using the scanner.
- ▶ Read the comments which provide pseudocode for the calculations that you need to do.