

Java Conditionals & Arrays



Review of Day 1 & 2

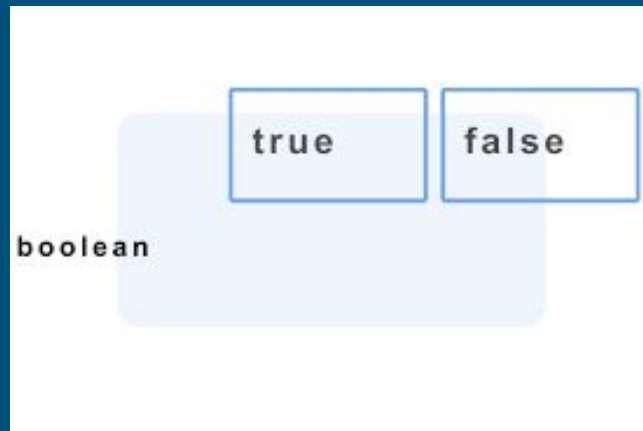
/*

Insert Kahoot or small exercise

*/

Boolean values

- A boolean type is declared with the `boolean` keyword and can only take the values `true` and `false`



Boolean Expressions

- Return a boolean value: true or false

1)

```
System.out.println(10 > 9);
```

2)

```
System.out.println(10 == 15);
```

3)

```
int myAge = 25;  
int votingAge = 18;  
  
if (myAge >= votingAge) {  
    System.out.println("Old enough to vote!");  
} else {  
    System.out.println("Not old enough to vote.");  
}
```

Comparison Operators

Index	Operator	Description
1	=	Equality operator or Equal to
2	!=	Inequality operator or Not equal to
3	<>	Inequality operator or Not equal to
4	<=	Less than or Equal to
5	>=	Greater than or Equal to
6	<	Less than operator
7	>	Greater than operator
8	!>	Not greater than operator
9	!<	Not less than operator

Boolean/Logic Operators

Operator	Result
&	Logical AND
	Logical OR
^	Logical XOR (exclusive OR)
	Short-circuit OR
&&	Short-circuit AND
!	Logical unary NOT
&=	AND assignment
=	OR assignment
^=	XOR assignment
==	Equal to
!=	Not equal to
?:	Ternary if-then-else

Quiz Time!

/*

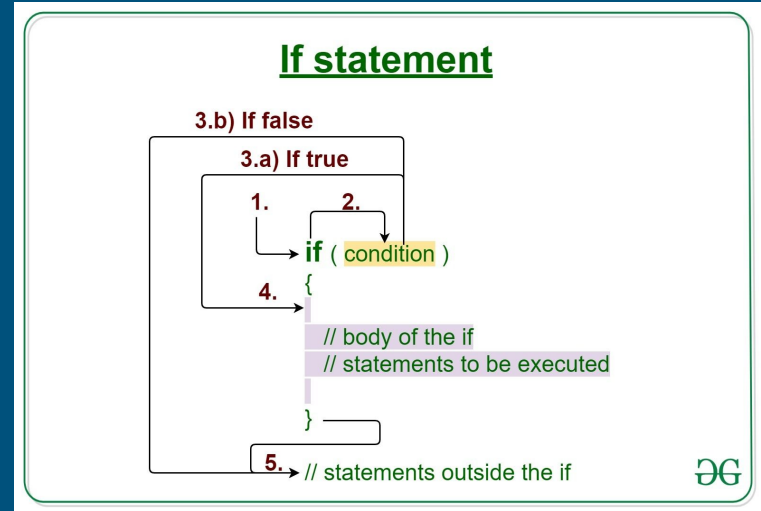
Insert Problems

*/

If Statements

```
If (booleanExpression) {  
    // code  
}
```

If the code in the parentheses is true, then the code in the block runs. Otherwise, Java skips over it.



Else and Else If

```
if (booleanExpression) {  
    // code  
}  
  
else {  
    // other code  
}
```

```
if (booleanExpression) {  
    // code  
}  
  
elseif (otherBooleanExpression) {  
    // other code  
}
```

Quiz Time!

/*

Insert if statement problems

*/

Loops

- Allow us to run a sequence of instruction repeatedly until a certain condition is reached
- Two types of loops in Java

While Loops

- Repeat a block of code WHILE condition is met

```
while (condition) {  
    // code block to be run  
}
```

```
int i = 0;  
while (i < 5) {  
    System.out.println(i);  
    i++;  
}
```

Infinite While Loops

```
int myValue = 10;

while (myValue <= 100) {

    System.out.println("Your value is: " + myValue);

}
```

For Loops

- while loop with counting

```
for (declaration; check; increment) {  
    // code block to run  
}
```

```
for (int i = 0; i < 5; i++) {  
    System.out.println(i);  
}
```

While vs For Loops Side by Side

```
int i = 0;
while (i < 5) {
    System.out.println(i);
    i++;
}
```

```
for (int i = 0; i < 5; i++) {
    System.out.println(i);
}
```

Debugging Problem

/*

Insert loop debugging problem

*/

Kahoot Time!

/*

Insert Kahoot link

*/

Homework

/*

Insert HW directions

*/

Additional Resources

- [`Alex Lee` If and Else Statements](#)
- [`Alex Lee` For Loops](#)
- [`Alex Lee` While Loops](#)