LEC 09

CSE 121

Conditionals

Questions during Class?

Raise hand or send here

sli.do #cse121

BEFORE WE START

Talk to your neighbors:

How are you doing (like actually)?

Music: ♣ CSE 121 25su Lecture Tunes ♣

Instructor: Hannah Swoffer

TAs: Abby, Hannah, Julia, Merav, Trey

Agenda

- **Announcements, Reminders** ⟵
- Conditionals PCM Review
- Code Examples!
- Conditionals Practice

Announcements, Reminders

- C2 released, due **Tuesday, July 29th**
- R3 released, due **Tuesday, July 29th**
  - This is the last time P0 is eligible for resubmission
- Quiz 1 on **Thursday, July 31st**
  - Can’t make it? Email Hannah ASAP
- Quiz 1 Practice Quizzes 1 will be released later today
  - I highly recommend using these to study!
  - There are while loops on the practice quizzes, but while loops will not be on Quiz 1

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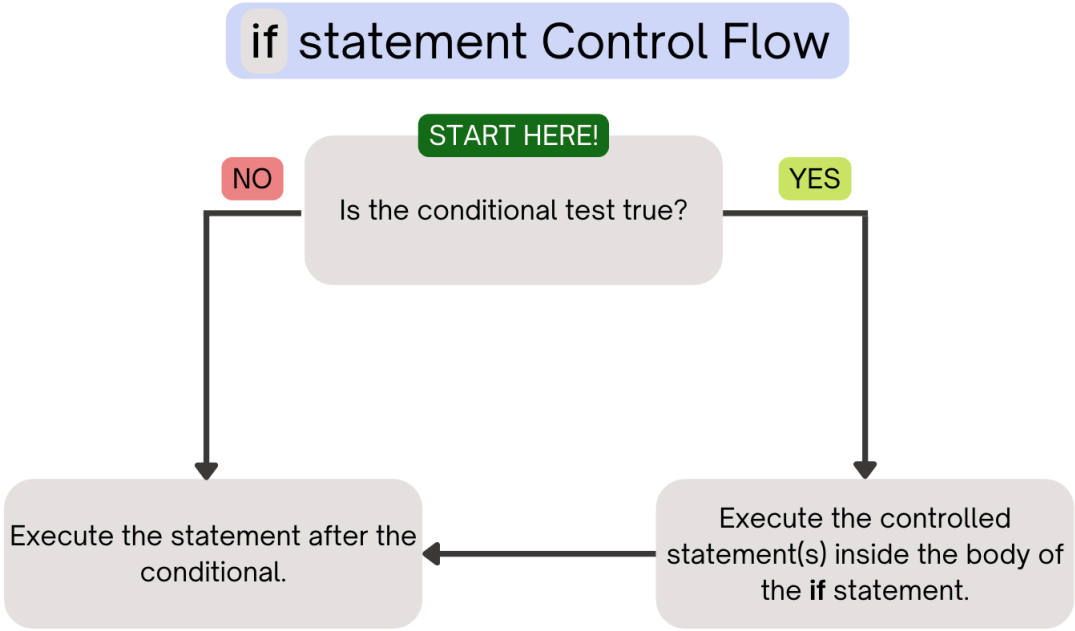
PCM Review: if statements

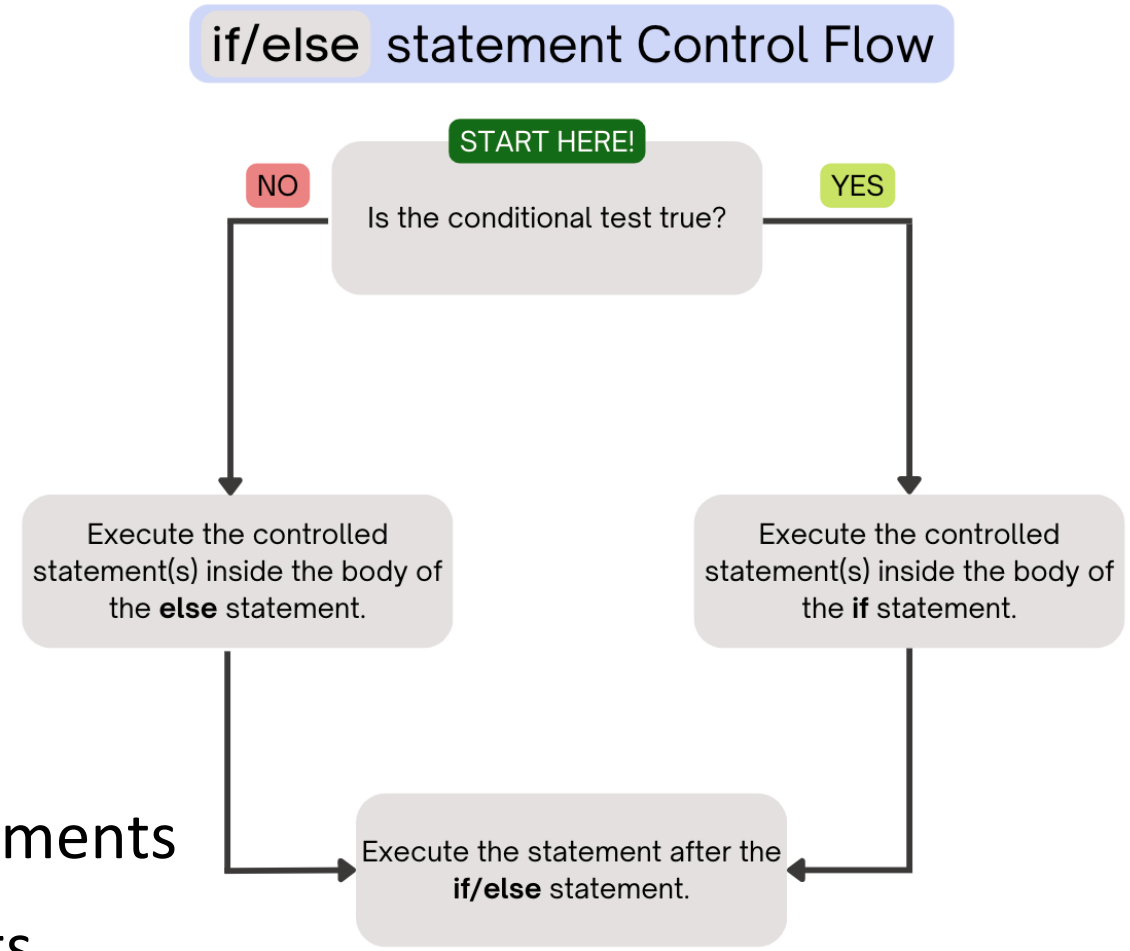
```
if ( test ) {
    body (statements to be executed)
}
```



Executes a block of statements
if and only if the test is true

PCM Review: if-else

```
if ( test ) {
        statement(s)
} else {
        statement(s)
}
```

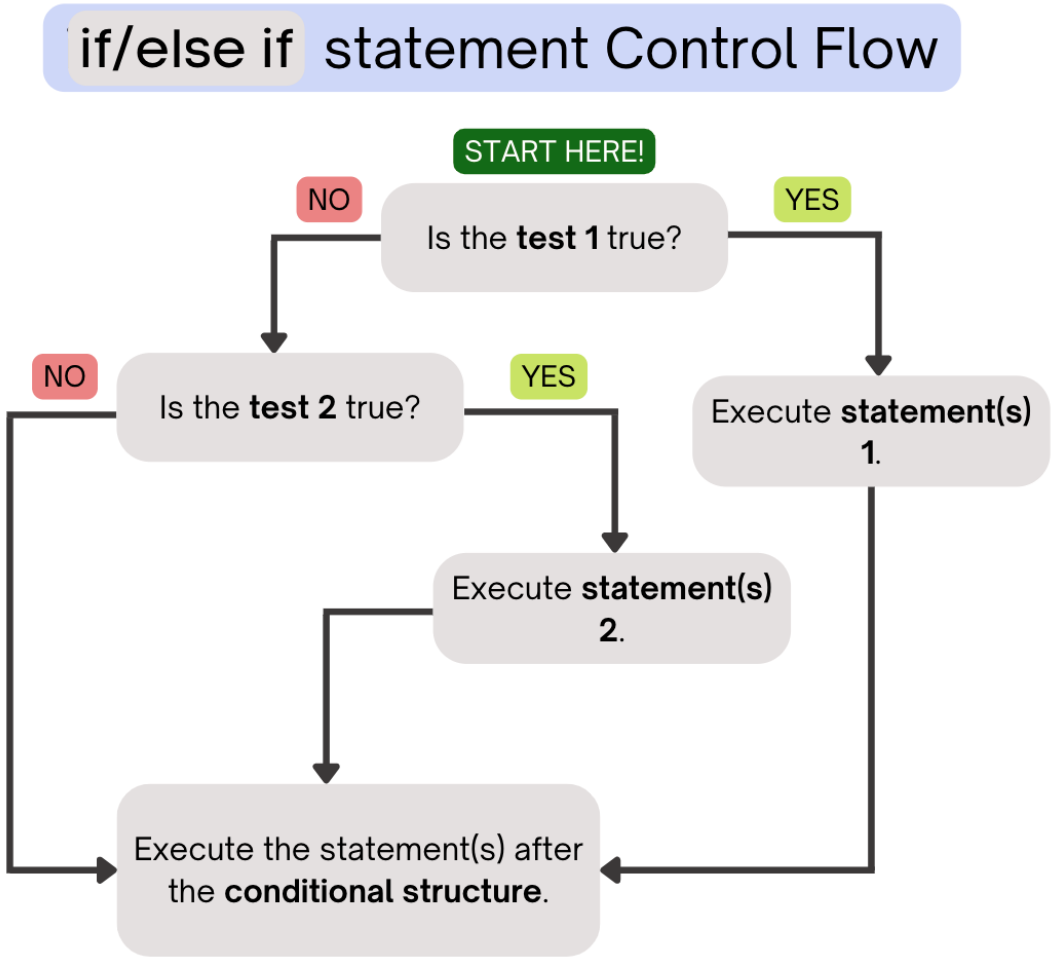


1. If the test is true: execute block of statements
2. If not, execute other block of statements

PCM Review: if-else-if

```
if ( test ) {
        statement(s)
} else if (test) {
        statement(s)
}
```

1. If the first test is true, execute that block
2. If not, proceed to the next test, and repeat
3. If none were true, don't execute any blocks



Practice: Think

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```
public static void main(String[] args) {
  for (int i = 1; i <= 3; i++) {
    System.out.print(mystery(i));
  }
}
public static String mystery(int n) {
  String response = "even ";
  if (n % 2 == 1) {
    response = "odd ";
  } else if (n == 1) {
    response = "one ";
  }
  return response;
}
```

What does this program output?

A. odd even odd

B. one even odd

C. one even even

D. even even even

Practice: Pair

sli.do #cse121

```
public static void main(String[] args) {
  for (int i = 1; i <= 3; i++) {
    System.out.print(mystery(i));
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public static String mystery(int n) {
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}
```

What does this program output?

A. odd even odd

B. one even odd

C. one even even

D. even even even

"Useless" Conditionals

```
public static void main(String[] args) {
  for (int i = 1; i <= 3; i++) {
    System.out.print(mystery(i));
  }
}
public static String mystery(int n) {
  String response = "even ";
  if (n % 2 == 1) {
    response = "odd ";
  } else if (n == 1) {
    response = "one ";
  }
  return response;
}
```

This else if statement never runs!

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- **Code Examples!** ⟵
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- Code Examples!
- **Conditionals Practice** ⟵

Practice: Think

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```
public static int mystery(int num1, int num2) {
    int count = 0;
    if (num1 == 7) {
        count++;
        if (num2 < 4) {
            count++;
        }
    }
    if (num1 + num2 == 10) {
        count++;
    } else if (num1 - 2 + num2 == 8) {
        count++;
    } else {
        count++;
    }
    return count;
}
```

If num1 is 7 and num2 is 3, what does this method return?

A. 2

B. 3

C. 4

D. 5

Practice: Pair

sli.do #cse121

```
public static int mystery(int num1, int num2) {
    int count = 0;
    if (num1 == 7) {
        count++;
        if (num2 < 4) {
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        }
    }
    if (num1 + num2 == 10) {
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    } else if (num1 - 2 + num2 == 8) {
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    } else {
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    }
    return count;
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```

If num1 is 7 and num2 is 3, what does this method return?

A. 2

B. 3

C. 4

D. 5