

# CSE 11

# Accelerated Intro to Programming

## Discussion Section 6

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This discussion is being recorded

# Logistics

- PA5 due today at 11:59PM
- PA6 Released
- Exam this week - Thursday 8am - Sunday 8am (PST)

# For-in loops

- run the body of their loops once per element in a given array
- follows the order that they appear in the array, with the "loop variable" assigned to that element
- Their syntax looks like:

```
for (/* element type */ /* variable name */: /* array */) {  
    /* loop body */  
}
```

## Example :

```
String[] messages = {"Hello", "CSE11"};
```

```
for (String message: messages) {  
    System.out.println(message);  
}
```

## prints

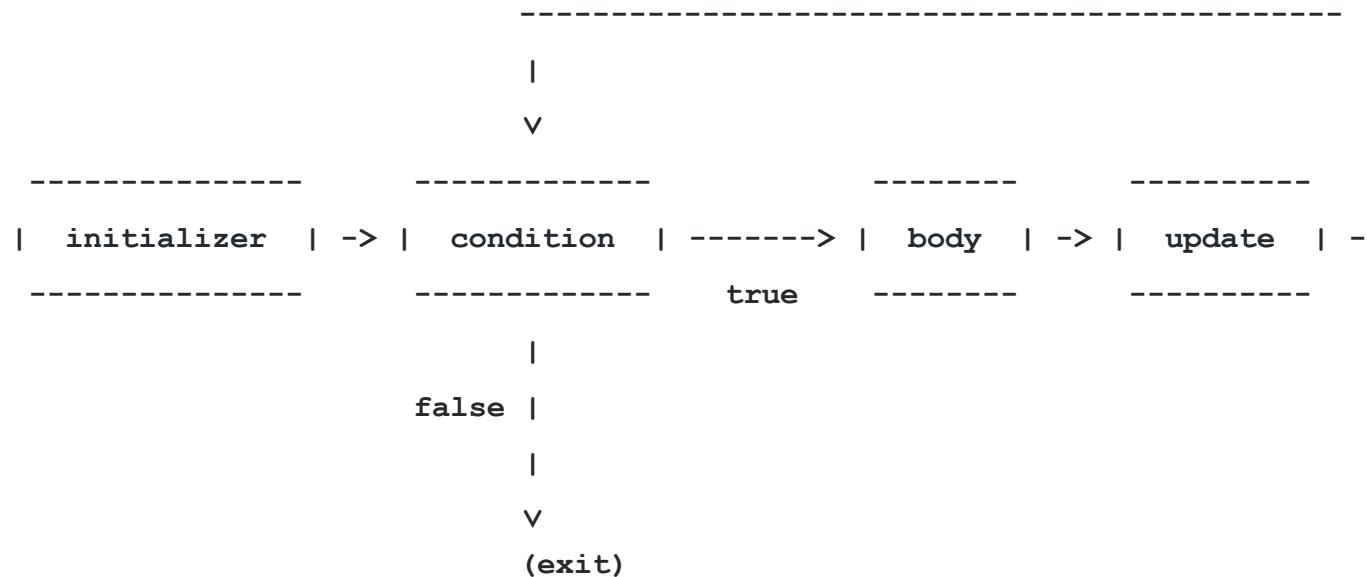
```
Hello
```

```
CSE11
```

# Counted for loops

- **More fine grained control compared to for-in loops - these are not limited to running once per element in an array**
- **Their syntax looks like:**

```
for (/* initializer */; /* condition */; /* update */) {  
    /* body */  
}
```



# Counted for loops

- **body of counted for loops contain other can contain multiple Java statements, including multiple method calls, variable definitions and updates, if statements, and even other loops**

```
// Start with the top header of the table
String result = "\t1\t2\t3\t4\t5\n";

for (int i = 1; i <= 5; i += 1) {
    // Print the left header
    result += i;

    // Print the row
    for (int j = 1; j <= 5; j += 1) {
        result += "\t" + (i * j);
    }

    // Add a newline to finish the row
    result += "\n";
}

System.out.println(result);
```

**Prints the times table from 1 to 5 to the terminal:**

	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

# PA6

- <https://github.com/CSE11-SP21-Assignments/cse-11-sp21-pa6-starter>

# Exam

Thanks!