

CSE 121 – Lesson 4

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Spring 2023

Music: [121 23sp Lecture Vibes](#) 



[sli.do #cse121](https://sli.do/#cse121)

TAs:

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<i>Larry</i>	<i>Lydia</i>	<i>Kailye</i>	<i>Lydia</i>
<i>Jacqueline</i>	<i>Jonus</i>	<i>Joshua</i>	<i>Kai</i>
<i>Afifah</i>	<i>Hugh</i>	<i>James</i>	

Announcements, Reminders

- Creative Project 1 releasing later today
 - Due Tuesday, April 18
- Feedback for Creative Project 0 released tomorrow
- Quiz 0: Thursday, April 20 during section.
 - Bring device to take quiz on! (e.g., laptop, surface)
- Resubmission form for R0 releasing tomorrow
 - due Thursday April 20

Resubmissions


In general, you may revise resubmit a given Programming Assignment or Creative Project each week based on the feedback you receive with **no penalty**. The grade of your resubmission will *completely replace* your previous grades for that assignment.

Logistics:

- One resubmission per week
- There are 8 resubmission cycles this quarter (all listed on the [course calendar](#))
- To use a resubmission, you will need to fill out a form listing some information
 - Name, assignment, which submission, what you changed, etc.

Last Time...

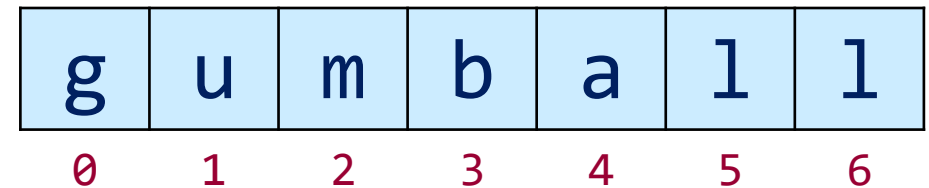
- Variables

- Container that stores a specific data type
- Must declare & initialize!
- Manipulate, modify, reuse 

```
// declare AND initialize  
int version = 5;
```

- Strings

- Sequence of characters treated as one, yet can be indexed as individual parts
- char, represents a single character





Debugging

We also started to think about *debugging* with the last activity in class on Friday (BuggyMadLibs.java)

Bugs happen – debugging is a natural part of programming!

Ways to approach debugging?

(PCM) for loops!

For loops are our first *control structure*

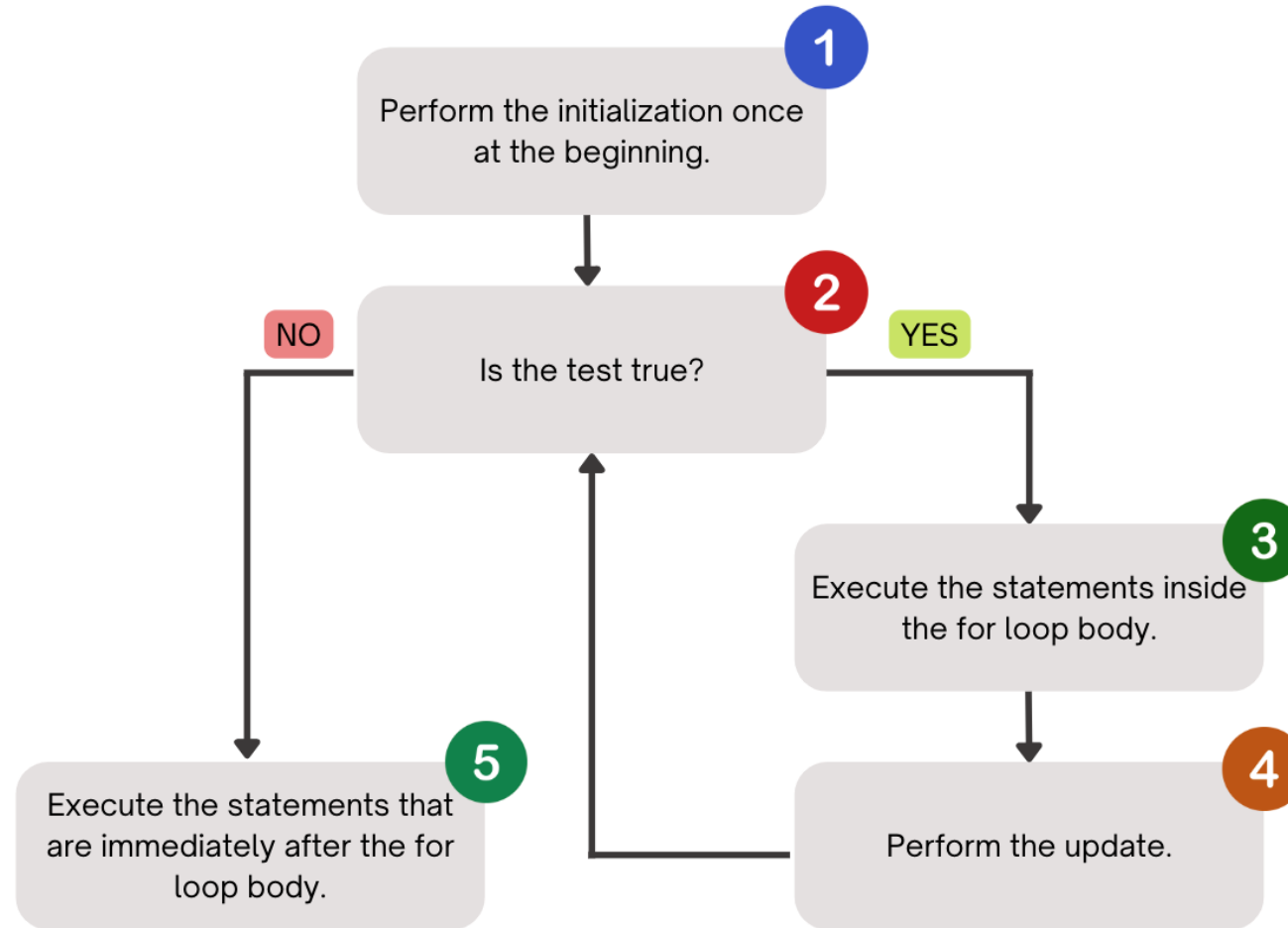
A syntactic structure that *controls* the execution of other statements.

```
for ( initialization ; test ; update ) {  
    body (statements to be repeated)  
}
```

(PCM) for loops!

```
for (int counter = 1; counter <= 5; counter++) {  
    System.out.println("I love CSE 121!");  
}
```

(PCM) for loops!



Poll in with your answer!



What output does the following code produce?

```
for (int i = 1; i <= 6; i++) {  
    System.out.println(i + " squared = " + i * i);  
}
```

A.

```
i squared = i*i  
i squared = i*i  
i squared = i*i  
i squared = i*i  
i squared = i*i  
i squared = i*i
```

B.

```
i squared = i * i  
i squared = i * i  
i squared = i * i  
i squared = i * i  
i squared = i * i  
i squared = i * i  
i squared = i * i
```

C.

```
1 squared = 1  
2 squared = 4  
3 squared = 9  
4 squared = 16  
5 squared = 25  
6 squared = 36
```

D.

```
1 squared = 11  
2 squared = 22  
3 squared = 33  
4 squared = 44  
5 squared = 55  
6 squared = 66  
7 squared = 77
```

(PCM) String traversals

```
// For some String s  
for (int i = 0; i < s.length(); i++) {  
    // do something with s.charAt(i)  
}
```

Fencepost Pattern

Some task where one piece is repeated n times, and another piece is repeated $n-1$ times and they alternate

g-u-m-b-a-1-1

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