

CSE 121: Sickness Edition!

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Announcements, Reminders

- Creative Project 0 due last night! How did it go?
- Programming Assignment 0 released; Due October 11th
- **Reminder:** Course website + Ed for all; not using Canvas
- **Be respectful:** In lectures, arrive & leave on time

Last Time

- Types & Simple Expressions
 - `int`, `double`, `String`, `boolean`
 - Mixing Types → convert, or risk data loss!
 - Operators
 - For `String` & numericals
 - Boolean Operators
 - Precedence/ P_eMMDAS

Plan for Today

- Variables & Strings
 - Declaration & Initialization
 - Manipulation
 - Strings & chars
 - String Methods
- Evermore Practice
 - Work with folks around you!
 - TAs will be wandering around 😊

Variables

Containers that store values of a specific data type.

To create a variable:

1. **Declaration:** Specify a data type (e.g. `int`, `double`, or `String`) and a name/label
2. **Initialization:** Store a value into it

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

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

Variables

They're made to be manipulated, modified, re-used!

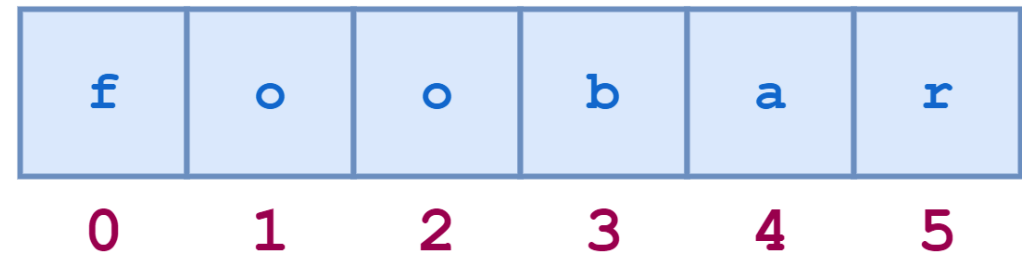
```
int myFavoriteNumber = 27;  
int doubleFV = myFavoriteNumber * 2;  
myFavoriteNumber = myFavoriteNumber + 3;  
myFavoriteNumber = doubleFV;
```

Work on Variables Problems

- Ed lesson linked from the course calendar
- Work with the folks around you!
- TAs will be walking around to help

Strings

- String = sequence of characters treated as one, yet be indexed to individual parts
- Zero-based indexing 🧨
- **Side note:** new data type!
char, represents a single character, thus use single quotes ;)




String Methods

- Methods used to manipulate/extract information from Strings

Usage: `<string variable>.<method>(<parameters>)`

- Examples:

- `length()`: returns number of characters in `String`
- `charAt(int)`: returns char at a specific index (int) of `String` 
- `indexOf(char/String)`: returns int index position of char/String
- `equals(String)`: returns boolean whether Strings fully match or not
- `contains(String)`: returns boolean whether `String` fully present or not

- **Note:** Methods do not modify the `String` variable they're called upon. Rather, you receive information!

Work on String Problems

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