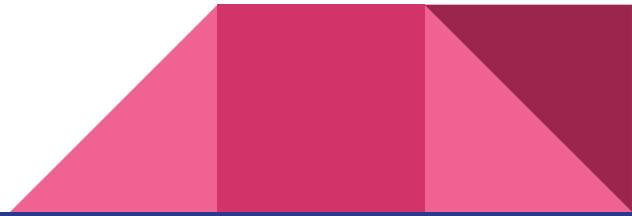
//Welcome to //Java I!

Who am I?

- Andrew Cabey and Ryan Marten
- Senior at the High School
- Programmer on the school's FRC team
- Been programming for several years in several languages

andrewc@ussteam.org

me@acabey.xyz



Tell me a little about you?

- What is your name?
- What grade are you in?
- Have you programmed before?
  - What languages have you used?
- What is your favorite thing to do?

What is Java?

- Aside from being one of the most widely used languages today, what does Java do for me?
- “write once, run anywhere”
- Who’s using Java anyways?

The modern world is written in Java

- Billions lines of code written in Java
- One of the top 3 programming languages for the past 16 years
- **Big Data**, Small Data, My Data, Your Data

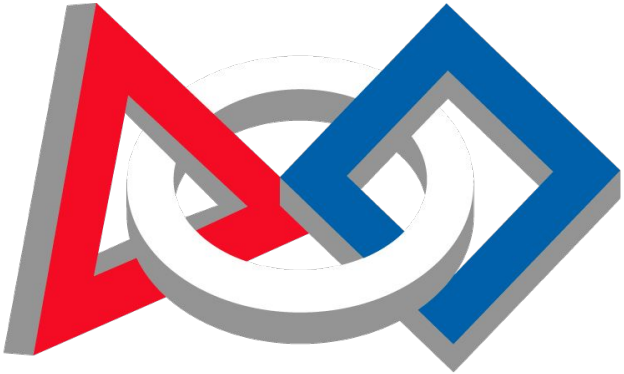
Sep 2016	Sep 2015	Change	Programming Language	Ratings	Change
1	1		Java	18.236%	-1.33%
2	2		C	10.955%	-4.67%
3	3		C++	6.657%	-0.13%
4	4		C#	5.493%	+0.58%
5	5		Python	4.302%	+0.64%
6	7	^	JavaScript	2.929%	+0.59%
7	6	v	PHP	2.847%	+0.32%
8	11	^	Assembly language	2.417%	+0.61%
9	8	v	Visual Basic .NET	2.343%	+0.28%
10	9	v	Perl	2.333%	+0.43%
11	13	^	Delphi/Object Pascal	2.169%	+0.42%
12	12		Ruby	1.965%	+0.18%
13	16	^	Swift	1.930%	+0.74%
14	10	vv	Objective-C	1.849%	+0.03%
15	17	^	MATLAB	1.826%	+0.65%
16	34	^^	Groovy	1.818%	+1.31%
17	14	v	Visual Basic	1.761%	+0.23%
18	19	^	R	1.684%	+0.64%
19	44	^^	Go	1.625%	+1.37%
20	18	v	PL/SQL	1.443%	+0.36%

Designed to Run Everywhere

- Unlike other languages that have to be written for a specific type of computer, a single Java program will work on any machine
- Java is *cross-platform*
- The JVM

Logo Quiz

- Each of these companies uses Java extensively
- Do you know what they are?



FIRST®

//What’s Coming

Topic	Objectives	Time Spent
Programming Environment	Students should understand and be able to navigate the tools required to make a Java program	2 classes
Representing Simple Data	Students will be comfortable will all primitive types in Java and be able to choose how to represent real-world data	1 class
Control Flow	Students will understand how a program will run and be able to control the order in which code is executed	2 classes
Distributing Logic	Students will understand the purpose of and be comfortable implementing methods that serve a specific need	1 class
Debugging	Students will be able to use the scientific method to find and correct errors in code	1 class
Representing Complex Data	Students will understand the concept of reference types and will be able to programmatically represent complex data from the real-world	3 classes
Relationships in Data	Students will understand and implement basic concepts of object-oriented programming and data abstraction	2 classes
Final Project	**TBD**	3 classes

Class Structure

- You decide?
- Projects
- Projects
- Projects

Git

Canvas