Naming in Java

- Identifier: Standard term for names of things in a program. Used to identify the variables and other elements such as classes and methods. Those names are called identifiers.

The Rules

Must begin with a letter (a-z or A-Z) or an underscore ( \_ )

Technically we could also use a dollar sign ($) but that is only used for system-generated identifiers, so we will never use it.

Subsequent characters in our identifiers may be letters, underscores, dollar signs, or digits.

As long as we follow these rules, the computer will be able to understand our identifiers and use them.

Which of the following IS a valid identifier in Java?

A. 1stBaseman : Does not begin with a letter or an underscore.

B. isDone? : uses an invalid character (?)

C. IT\_168$Fall\_2021

D. #ofStudents : Does not begin with a letter or an underscore.

The Conventions

We have a set of conventions so that our programs are readable. We want to look back at a code after a period of time and understand what it does. Or if we show it somebody, they are familiar with the conventions and also understand.

Sometimes these conventions vary by organization. Some companies will use different conventions than what we’re learning in class (just so that we are aware.)

We’ll learn about general conventions. These conventions are different for different kinds of identifiers. We will name variables, constants, classes, and methods. Each will have its own set of rules that we’ll talk about as we learn about each different kind of thing.

Guidelines for Variable names

Should typically be a noun or a noun phrase that describes the data. We have an exception for Boolean values, when they are true or false.

Should be in camel-case: This means that we start with a lowercase letter, then for each subsequent word we will capitalize the first letter of that word.

No underscores are used.

Digits are allowed, usually at the end.

Avoid cryptic abbreviations.

Keep variables from being too long.

*studentName*

*middleInital*

*hourlyPayRate*

*hasGraduated*

*isComplete*

*numPepperoniPizzas*

*hitPoints*

*finalExamScore*

*title*

Always make sure to provide enough information.

The following identifier is: xtrCrdtAsgn2

1. A good variable name
2. Legal, but not recommended
3. Illegal