# CSE 113 A

January 18 – 22, 2010

## Announcements

- If you have not picked up a syllabus, please do so
- Assignment #1 – sign and return form on last page of syllabus – must be turned in by end of class Monday, January 25th to receive full credit.
- Make sure to sign up for account

In Greenfoot, we see a class diagram panel. (Right)

Inside are boxes with words called class boxes & each one represents a class

Class - [programming term]

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Class -

- definition
- description

> of something

- how a particular "thing" will function

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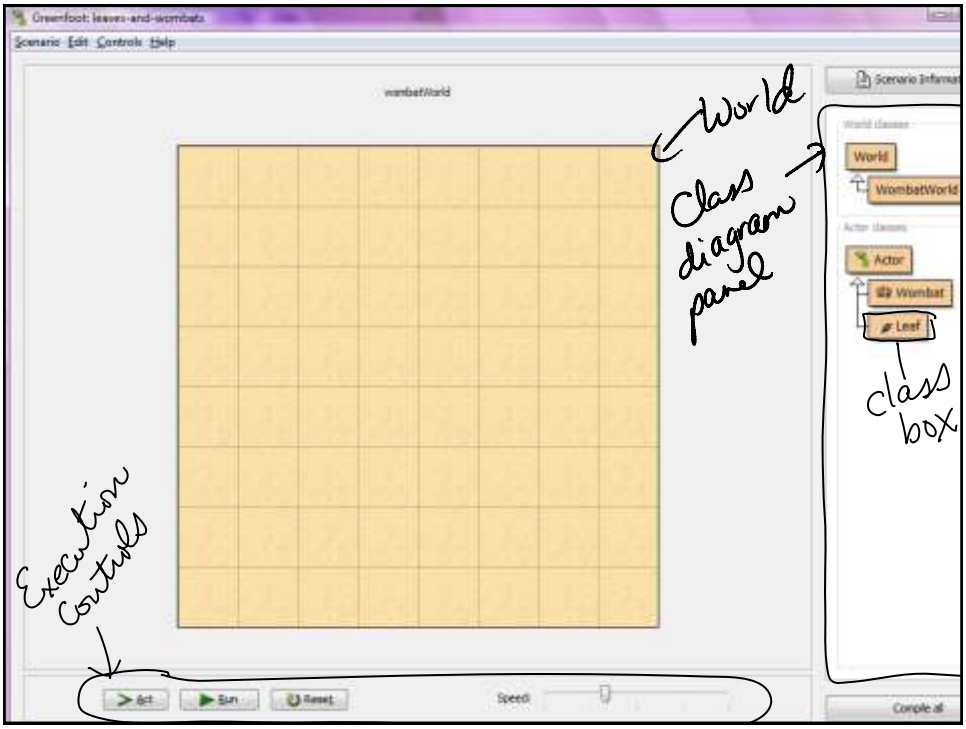


Objects

The actual "things" that will perform the actions of our program

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Methods [programming term]

↳ What an object can do

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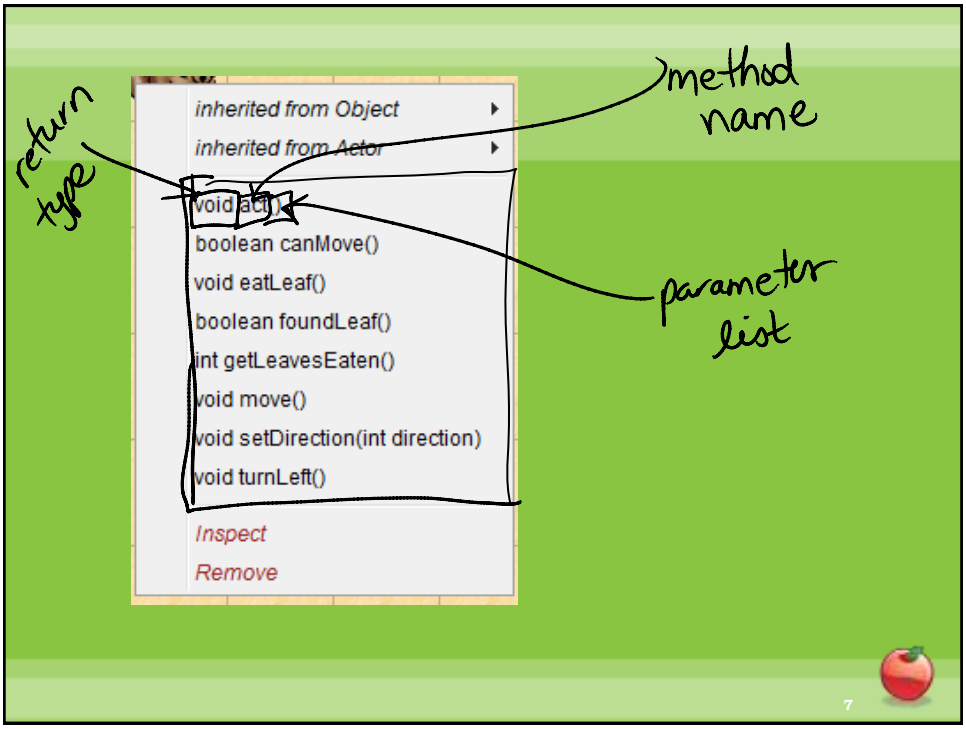


Selecting an ~~obj~~ option from the list of methods "calls" or "invokes" the method. The action of the method is then performed.

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Method:

return type _____ method Name _____ ( parameter list _____ )

Return type: the type of information that gets returned after the method has executed

* void -indicates that nothing is returned

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* int - whole number returned
* boolean - true/false value returned

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Method names

- Chosen by programmer
- Should reflect the actions of the method

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## Restrictions:

* first character of the name must be a letter
* can not contain special characters (characters other than letters or digits)
  - exception is underscore

a_b

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Parameter list - always enclosed by ()

- can ~~be~~ be empty
- if not empty, they contain parameters

↳ Parameters are extra pieces of information needed to perform a task (method)

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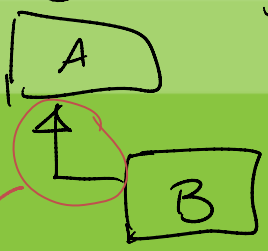
# Methods Recap

- Three parts:
  - Return type – type of information that is returned from a method call; void if nothing returned
  - Name – the name given to the method by the programmer
  - Parameters – information that is needed to perform the actions of the method; empty () if none needed
- Methods can have a return type, but no parameters; can have parameters, but no return type; can have no return type and no parameters; can have a return type and parameters



Class Diagram Panel:




"B inherits from A"
"B is a subclass of A"
"A is the superclass of B"

indicates a relationship between A & B. The relationship is called inheritance

If B inherits from A, then B inherits all the methods from A. Therefore, B can do at least all of the things A can do. Typically, B can also do more things that A can not do.

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