

# SMA: Software Modeling and Analysis

*Practical Session*

***Week 02***

# Assignment 01

## ***Discussion***

# A01 - Exercise 04

***Thank you for your registration on  
Piazza and Academia.***

# Assignment 02

***Preview***

# A02 - Exercise 01

## **Nature of *Smalltalk and Pharo*.**

- a) Name three major benefits Pharo provides in comparison to Java.
- b) How can you export the current image of your Pharo working environment?
- c) What is a message in Pharo?
- d) What is a block in Pharo?

# A02 - Exercise 02

## Pharo *object inspection*.

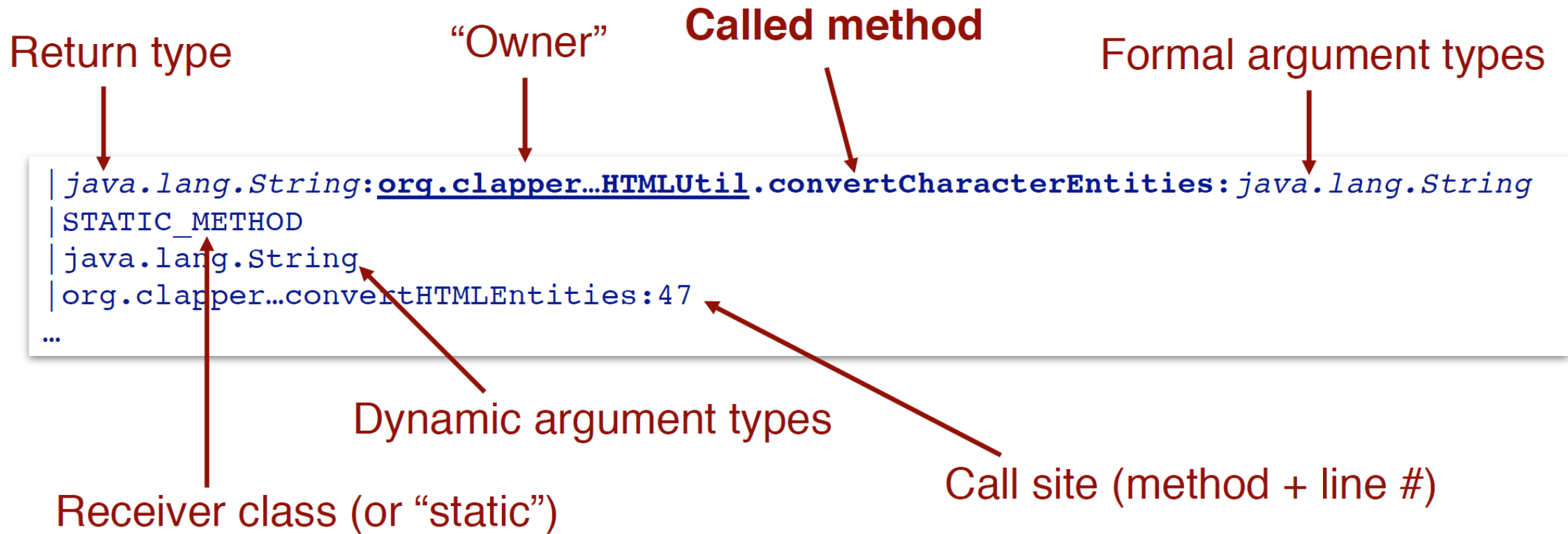
- a) What is the message that is sent to a superclass to find all its subclasses?
- b) What is the difference between a String and a Symbol object in Pharo? Why is it important?
- c) How can you create an abstract method in Pharo?
- d) Write the a Smalltalk block, and execute it with some specific values.

# A02 - Exercise 03

## Even more Pharo *coding*.

- a) Find the top 10 most frequently invoked methods.
- b) Find the top 10 methods invoked on the largest number of different objects.
- c) Find all static methods.

# A02 - Exercise 03





# A02 - Exercise 03

## **Exercise Procedure**

- 1) Drag & Drop the downloaded \*.st file into Pharo**
- 2) Select “Install into new change set”**
- 3) Store the \*.txt file in the application folder of Pharo**
  
- 4) Now, the “CallGraph” package should be available and working in Pharo**