

## Serie 1 - Introduction to Programming Languages

Please hand this exercise in on paper before the next lecture (10h15, 5 March).

### Exercise 1

Register to the mailing list at

<https://www.iam.unibe.ch/mailman/listinfo/ps-vorlesung>.

For the programming exercises of the following weeks you are required to hand in the source code of your solutions using a git repository. For this to work please send your public ssh key(s) to one of the following email addresses:

- Toon Verwaest: [verwaest@iam.unibe.ch](mailto:verwaest@iam.unibe.ch)
- Camillo Bruni: [camillobruni@students.unibe.ch](mailto:camillobruni@students.unibe.ch)

*This exercise is mandatory!*

### Exercise 2

Answer the following two questions, each with no more than 3 sentences.

- How do compilers and interpreters differ?
- How are compilers and interpreters used in the world of Java?

### Exercise 3

Read the following essay by Paul Graham:

*The Hundred-Year Language* (<http://www.paulgraham.com/hundred.html>)

- Summarize the essay. What is the gist? (*max 5 sentences*)
- Choose an argument of Graham you do not agree with and bash it! (*max 5 sentences*)
- What do you think is the core, or axioms as Graham also calls them, of Java? (*list max 5 items*)
- What is a *good waste* of Java and how is it achieved (i.e., implemented)? (*max 3 sentences*)
- On the other hand, can you think of axioms in Java which, according to Graham, would be *gross*? (*list max 3 items*)
- Propose improvements or new features for your favourite programming language and environment that would leverage your productivity. What would help you to avoid bugs during development or would support you in spotting bugs more easily? You can be a bit speculative... (*max 5 sentences*)