

## Exercises week 12

### Monday 21 November 2011

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#### Goal of the exercises

The goal of this week's exercises is to investigate and compare some recently proposed programming languages, including Go, Clojure, Ceylon and Dart.

Do exercises 12.1, 12.2, 12.3, and 12.4.

**Hand in** the solutions by handing in the completed sheet, compressed as a zip file.

#### Do this first

Get the draft language comparison spreadsheet from the course homepage.

Solve the exercises below by filling in the sheet.

**Exercise 12.1** Locate the entries in the language comparison table that contain question marks. Use the references on the course homepage to try to determine the correct answer, and enter the answer into the table. Make any entry you change *italic* so that we can see what you change.

Use the space below the table to write comments about your entries, for instance, in cell A30 you may write "Cell H5: Clojure's chief designer is Donald Duck, according to Wikipedia. However, Halloway's book says that it is Rick Hickey."

**Exercise 12.2** Use the Dart language reference (see link on the course homepage) to fill in as many as possible of the cells marked "(exercise)" in the Dart column.

Use the space below the table to write comments about you entries, as in the previous exercise.

**Exercise 12.3** The Objective C language is old but newly popular because it is the main programming language for Apple's iOS platform, and hence for iPhone, iPod and iPad programming. Fill in as many as possible of the cells marked "(exercise)" in the Objective C column.

Use the space below the table to write comments about you entries, as in the previous exercise.

**Exercise 12.4** If there is some existing entry that you disagree with, mark it **bold** and *italic* and explain why you think it is wrong.

**Exercise 12.5** (Optional) Obviously many many languages could be added to the table, such as Javascript, Ruby, Python, Smalltalk, Lisp, Scheme, Standard ML, OCaml, Haskell and so on.

Choose some language that you are interested in, add a fresh column for that language, and fill it in.