Session 1
Overview of Algorithmic Solutions

Guide to symbols in lectures summary and slides

Symbol	*Meaning*
🕮	See textbook
🗝	Key idea
👁	Note!
🕓	Self-study/Homework

Check the www.hashimi.ws/cs223/assignment.php page for Exercise material and help

Lecture Summary

Basic Concepts

1. Thinking about the definition of an algorithm
2. Discuss session exercises

Session Exercise

P2. Code the 🕮 Sieve of Eratosthenes (pronounced Era-tos-thin-ez) algorithm. Use demo programs in the assignment page as examples. Check the answer after doing your best.

Detailed instructions

- Carefully read the comments in the demo programs *jsdemo1.js* and *jsdemo2.js*
- Note syntax: variable, array and function definitions, and results output statement
- Translate expressions, assignments, and control statements in the pseudocode to code as taught in programming classes, Google `Math.floor()`, `Math.sqrt()` methods
- Save your code as *sieve.js*
- In the caller file *jscaller.html*, replace the file name in the <script …> tag as follows

```
<script src="myfilehere sieve.js"></script>
```

- Drag-drop *jscaller.html* into Firefox window to run your code
- Activate the debugger (click F12, reload, and switch to Debugger panel), you can step through your code and watch variables but that is another exercise

P3. Code the Euclid algorithm. Find the greatest common divisor for {24,60}, {75,45}, {245,147}, {182,910}. Report your results in the discussion group.

Reading List

🕮 1.2–1.3, 1.4 (review and reference as needed)

Keywords

Computable, procedure, terminating, unambiguous