
Coroutine puzzles

A *coroutine puzzle* is a maze, involving two counters, where the location of each defines how the other one will move. This kind of puzzle problem (with follow up questions) is sometimes used in an interview setting.

Task

For this étude you will be submitting a written report (as a PDF file please). This report should be thought of as a preliminary briefing document to your non-technical manager in preparation for deciding whether to develop an app based on coroutine puzzles. The report, which should be about two sides of A4 in length must include at least the items specified below:

- solutions to two of the four coroutine puzzles provided described in a clear and easily understood notation, together with a description of how the solutions were found (hint: don't just say "trial and error");
- a description of a data structure for representing coroutine puzzles (do not write actual code but do be specific about *what* will be represented and *how* it will be represented);
- a description of an algorithm for solving coroutine puzzles, and for generating new ones.

(Individual 1)