Graph Theory







Reference [1]

(Padolsey, 2020, Why we write code section)

- Code as intent
- Who is the user?
- What is the problem?
 - What problem is the user encountering?
 - How do they currently carry out this task?
 - What existing solutions are there and how do they work?
- Truly understanding the problem domain

(Padolsey, 2020, Why we write code section)

- Susanne (engineer): Matt, we've been asked to design a vessel that users can boil water with
- Matthew (engineer): Understood; I will create a vessel that does exactly that



- <u>https://www.cartagena99.com/recursos/alumnos/apuntes/dijkstra_algorithm.pdf</u>
- <u>https://www2.cs.science.cmu.ac.th/courses/204735/lib/exe/fetch.ph</u> <u>p?media=dijkstra.pdf</u>
- <u>https://alaska.reru.ac.th/4122202/chap7.ppt</u>
- <u>https://mathsathome.com/prims-algorithm/</u>
- https://brilliant.org/wiki/dijkstras-short-path-finder/

• [2] The algorithm creates a tree of shortest paths from the starting vertex, the source, to all other points in the graph. Dijkstra's algorithm, published in 1959 and named after its creator Dutch computer scientist Edsger Dijkstra, can be applied on a weighted graph.

- [1] Ahmad, I. (2020) 40 Algorithms Every Programmer Should Know. 1st edn. Packt Publishing. Available at: https://www.perlego.com/book/1553786/40-algorithms-everyprogrammer-should-know-hone-your-problemsolving-skills-by-learningdifferent-algorithms-and-their-implementation-in-python-pdf (Accessed: 22 January 2023).
- [2] Skiena, S. Dijkstra's Algorithm Animation. Retrieved April 22, 2016, from http://www3.cs.stonybrook.edu/~skiena/combinatorica/animations/ anim/dijkstra.gif
- [3] Padolsey, J. (2020) Clean Code in JavaScript. 1st edn. Packt Publishing. Available at: https://www.perlego.com/book/1365832/clean-code-injavascript-develop-reliable-maintainable-and-robust-javascript-pdf (Accessed: 22 January 2023).