Specification for the AlgoVis program using JavaFX

# Concept

The purpose of this program is to visualize simple algorithms for users. The goal is to help understand the way these algorithms work in practice.

The default goal is to implement 4 very common and relatively simple algorithms, and visualize them with the help of JavaFX. The four algorithms are BFS, DFS, Dijkstra, Kruskal.

As it is commonly known these algorithms are quite commonly used with graphs, and for this reason, the program also models graphs in it’s utility package. The reason for not using any external libraries for this is that I’d like to integrate some gui features into these classes, but these might change.

# Program Skeleton

Packages

The Package structure of the project is fairly simple, the main package is called algorithmVisualizer, this includes the Main class and the other packages. By default there will be 3 packages inside:

1. algorithms
   * This package is responsible for the implementation of all the algorithms
2. utils
   * This package handles all the required supporting functionality for the algorithms
3. visualizations
   * This package implements the GUI aspect of the algorithms, meaning these classes provide the main functionality from the user perspective.

# Version Control Tool

For Version Control the program will use GitHub, as it’s one of the most easy to use and reliable version control tools.