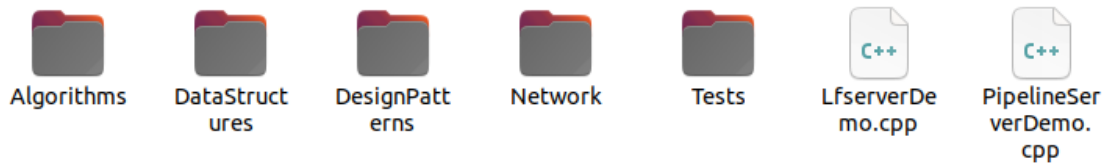


## Project Structure:



Inside every directory, you will find two additional directories:

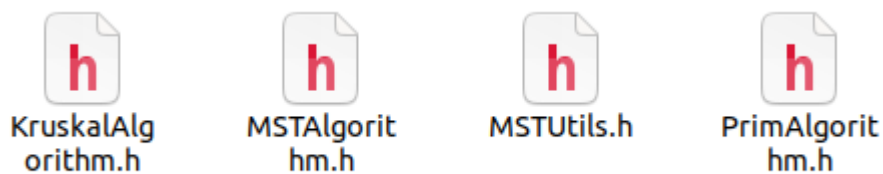


\* **include:** Contains the relevant .h files.

\* **src-** Contains the relevant implementations of the .h declarations, i.e., .cpp files.

## Directories details:

**Algorithms :** Contains the algorithms used in the project. Inside this directory, you will find the following:

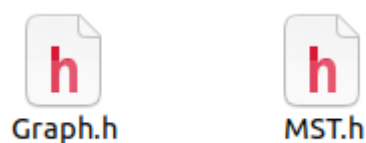


\* **MSTAlgorithm:** An interface to define an MST algorithm for a graph, to be used with the strategy pattern.

\* **Krusal/Prim Algorithm** -Concrete strategies for finding the minimum spanning tree (MST) of a graph.

\* **MstUtils** -A Static class with methods to execute operations on a given MST. These methods implement the computations required for the project.

**DataStructures :** Contains the implementation of the data structures used in the project, namely MST and Graph.



**DesignPatterns:** the design patterns used in the project



ActiveObject.h



LeaderFollower.h



MstComputationPipeline.h



MSTFactory.h

\* **ActiveObject.h:** Implements the Active Object design pattern, used within the computation pipeline.

\* **LeaderFollower.h:** Implements the Leader-Follower design pattern for managing concurrent tasks related to mst.

\* **MstComputationPipeline.h:** Defines the pipeline for computing the required data on the mst

\* **MSTFactory.h:** Implements a factory for creating MST algorithms.