Alexy Almeida	2019192123	adenis@student.dei.uc.pt
Edgar Duarte	2019216077	edgarduarte@student.dei.uc.pt
Rodrigo Ferreira	2019220060	rferreira@student.dei.uc.pt

1 Assignment 2: Dynamic Software Testing

The goal of this assignment is to develop a software plan test for an academic project called "Analyzing a Data Pipeline", which consists of designing a data pipeline that loads a data set and to perform a series of processing operations on it, until we get a final result that should be stored somewhere, for example, in a file or a database.

In the pipeline, one operation can only start once all its dependencies have finished. For that, we need to make sure that the data whole pipeline is connected, that there should be a single initial node, that there should be a single terminal node and that there should be no cycles.

Besides that, the goal is to also compute several statistics about the data pipeline.

- In the first statistic, we need to assume that we would run the pipeline in a computer that can only perform one operation at a time and compute the minimum amount of time needed to run the pipeline and the feasible order to run the operations;
- In the second statistic, we need to assume that we would run the pipeline in a computer that can run an infinite number of operations in parallel and compute the minimum amount of time needed to run the pipeline;
- In the third statistic, we need to detect which operations are a bottleneck, which is an operation that cannot be run in parallel with others.

The source code can be found at: https://github.com/TatianaSAlmeida/EA-AnalizingDataPipeline