

# Homework 04

**Assigned on 2021-04-16**

**Due on 2021-04-24**

1. Write a program for the following task. Starting from a graph with 1000 nodes and no links, add links randomly, one at a time, until your graph has a connected component that comprises at least 501 nodes. What is the value of  $\langle k \rangle$  at this point? Repeat the experiment 50 times, and plot the distribution of  $\langle k \rangle$  values.

Hand in your code together with the solutions.