CS583 - Programming Assignment

Demo and code submission: Oct. 3, 2023

Task: Implement the MS-GSP algorithm in Section 2.7.2 of the textbook.

Input: You will be given two input files in plain text.

1. The data file. Each line is a sequence, and each item is represented with an integer number, e.g.,

   <{10, 40, 50}{40, 90}>
   <{10}{10, 40}{40}>

2. The parameter file. It contains the MIS values of all items that have appeared in the data file:

   MIS(1) = 0.02
   MIS(2) = 0.04
   …
   MIS(rest) = 0.01
   SDC = 0.03

   rest: all other items that are not given specific MIS values. SDC: support difference constraint.

Output: The output file should be of the following format, which must be followed exactly. No other symbols or punctuation marks should be used.

****
k-sequences:
<{20}{30}>
<{20,70}>
<{20}{70}>
…
The count is: X

For example:

****
1-sequences:

<{90}>
<{40}>

The count is: 2
****
2-sequences:

<{70}{70}>
<{40}{40}>
<{10}{40}>

The count is: 3