Meeting Summary

Date: 13/07/2023

Problem: An undirected graph is given as input and the minimum diameter among the corresponding digraphs need to be output.

Step1 : Graphs are stored as in the form of adjacency matrix in a file and this file is read by the program

Step 2: We consider the corresponding digraphs

Let *G* be the input graph of size *m*. We construct the possible set *S* of digraphs corresponding to *G* by using the bit vectors. There will be 2*m* such possible vectors. The orientation is done by lexicographic ordering starting at the vertex 0, assigning the direction corresponding to value at the current index.

Step3: Now we consider a subset of *S* and calculate the diameter of each of them

The minimum among the diameter is output and the diagraph - diameter pair calculated is stored in a file for future reference.