DISCO Project

CONSISTENCY REPORT

Input:

All of these courses written in preference will be of the form “ugcdcx” or “hdcdcx” where x is an integer belonging from 0 to 9 signifying the course which will be a 6 letter name. Eg. ugcdc1, ugele3, hdcdc2 etc. Also to specify end of input file we here have used word “END” after which code will stop taking further inputs.

Complexity Of Code:-

The exponential complexity emerges from the backtracking of the functions where, for each level or course being assigned, there could be multiple possibilities for assignment, leading to an exponential growth in the number of possible combinations. We have optimised the code using a “trigger” while loop which allots all the linearly cascading CDCs. Eg. If ProfA offers only CDC1 and ProfB offers CDC1 and CDC2 and these CDCs are not offered by any other profs then ProfB will be allotted CDC2.

Coherence and Alignment:-

Code is evaluated and cross checked with two input files “input.txt” and “crash.txt”. The code runs smoothly and completes its execution without encountering any errors or issues when provided with this specific input “input.txt”. The code encounters a crash when processing this input “crash.txt”.

Limitation/Discrepancies of Code:-

We are backtracking differently for allocating CDC and electives. Our code efficiently allocates CDCs based on the course level during the backtracking process. The constraints ensure the allocation of each CDC, and the process terminates when all courses are allocated. However, when allocating electives, we must ensure that the workload of professors is met, which may not necessarily be fulfilled by the end of the backtracking.