Multiagent Programming

Assignment # 3

Graphical user interface, text, application, email

Description automatically generated

As, it can be seen in the picture attached that:

To run the program, we have to input the name of the file, and the format of the file would be same as described in the question description.

It then uses dynamic programming to find the optimal coalitional structure given the values. Major steps are:

* Parsing the File gameCS.txt to make a Map Dictionary of sets and values.
* CoalitionalGeneration class for storing the set of tables required for optimal solution and stores final coalition.
* LocateCoalition uses calculate\_opt\_si to compute the best F(c) at that point in the graph and stores the optimal value in table for further lookup.
* The final answer is written in optimalCS.txt where first line is the optimal value and below that is the optimal structure given the coalition.