

Group 4

CECS575-01

Due: April 17th 2022, 11:59pm

Assignment 3: Structural Pattern Flyweight Justification

The design of the private server for our chat messaging system may be costly since even a moderately sized server will require hundreds of thousands of character objects spread across messages, channels, etc. Every single server will contain many channels, which in themselves will contain many messages, and furthermore each message will contain many characters.

Therefore, it is easy to see representing everything with objects will quickly become too plentiful for an average computer's memory. The flyweight structural pattern can be used to efficiently share the same objects across multiple contexts simultaneously. By sharing common states between multiple objects this solves the issue of memory usage and preventing the program from crashing when loading in a server with many channel and message objects.