

TransportLayer Project User Manual

CPSC 441 Assignment 2 – Fall 2020 – By **Joel Happ** (30071541)

How to Use:

1. Ensure you have properly installed the Java 8 JDK and added its path variable.
2. Move the contents of the src folder to the folder where you would like to compile your java classes.
3. From your computer's command line, navigate to the folder which contains the above files. Compile the server by using the command *javac transport/MasterServer.java* and the client on a new terminal by using the command *javac transport/Client.java*
4. Run the server using the command *java transport/MasterServer 8000*
5. Run the client using the command *java transport/Client localhost 8000*
6. Follow the directions on the client user interface to interact and perform microservices.

Alternatively, you can compile and run these programs from within an IDE like Eclipse.

Enter 1 to specify the sequence of numbers representing the microservices you wish to perform. (ex 1234 for Echo, Reverse, Upper, Lower). Enter 2 to specify what text you wish to perform this service on. Enter 3 to send a request to the server to perform your specified microservices on that text. Enter 4 to configure microservices (you can stop microservices and assign new ones bound to any integer between 1 and 9). The microservices' transforms will be applied message by message.

Microservices

There are 6 Microservices available, organized by number:

1 – Echo – Returns original	2 – Reverse – Reverses text	3 – Upper – uppercases
4 – Lower – lowercases all	5 – Caesar – Applies Caesar cipher of 2 alphabetical positions	6 – Yours (UwU) – UwU-fies text according to specifications in YourService.java

This proxy program fulfills all requirements described by the CPSC 441 Assignment 2 description. In addition, it fulfills the bonus requirements of managing all Microservers from within the master server, and it allows you to dynamically stop and start servers with command 4.