CPSC 441 – Assignment #2 User Manual (Harrison Chen 10075185)

Service Name:	Port Number:
Client/Master	8787
Echo (1)	8788
Reverse (2)	8789
Upper (3)	8790
Lower (4)	8791
Caesar (5)	8792
Yours - Replicate (6)	8793

Objective: This manual describes how to run the files in the A2.zip submission.

Steps:

1) First initialize the services (1-6) on command line by entering the file directory, and compiling the required files (suggested to open separate terminal sessions). Be sure to use the corresponding port numbers as listed above as these port numbers have been hard coded into the service files. The syntax for the compilation is:

```
java <Service_Name> <Corresponding Port Number from above Table>
```

2) Next initialize the Master.java and Client.java files respectively using the same command as above. Note the Client file requires the 'localhost' argument prior to the 8787 port number

3) On client-program start-up, enter '1' on command line to enter a message to be transformed by the microservices

4) Once back at the client-program menu, enter '2' to enter the transformation commands to be executed in sequence

5) Wait for the service sequence to complete. The client will be served back the transformed message.

6) Press '7' on the client-side program menu to end the client session

Testing:

For the most part, all basic mandatory requirements work to specification. Test cases used were string messages on localhost such as "number14gingerbeef" and "number22friedrice". The master server can only handle one full service cycle before shutting down, even after best efforts to remediate it to continuously take input. Additionally, the Caesar cipher transforms all numbers and special characters, which I'm unsure if this is how a proper Caesar cipher works.