

Lab 3 – Description of Testing

In order to determine the validity of the program, multiple test cases were designed. The three test cases were 1-producer/1-consumer, 2-producers/1-consumer, and 2-producers/2-consumers. The expected output of each test were the inputs as the consumer was reading what the producer was inserting into the buffer. This means that the output needed to have the same characters as the input with the same frequency. From the experimental data, it is evident that the program works as expected.

Look at input/output files in the testing directory for experimental data.

1-Producer/1-Consumer:

```
./producer 0 < test0in.txt  
./consumer 1 > testing/1producer-1consumer-out.txt
```

2-Producers/1-Consumer:

```
./producer 0 < test0in.txt  
./producer 1 < test1in.txt  
./consumer 2 > testing/2producers-1consumer-out.txt
```

2-Producers/2-Consumers:

```
./producer 0 < test0in.txt  
./producer 1 < test1in.txt  
./consumer 2 > testing/2producers-2consumers-out1.txt  
./consumer 3 > testing/2producers-2consumers-out2.txt
```