Technical Report

For this project, we used EC2 on the Amazon Web Service to show how parallel processing works. To do this, we set up an instance of Linux and used it to run a program to count the number of primes from 1 to N. We made N = 262144 for the testing. With only 1 process, it took 10.8088 seconds to finish the calculation. With 8 processes, it took 2.71065 seconds complete the calculation. This “speed up” is done by allowing the program to use the other instances’ processing power. Because the work load is shared amongst the 8 processes, the amount of time to finish computing is decreased, but with diminishing returns. After so many processes are added, the performance gains eventually become marginal, making it not worth the extra cost.