**Project 1: Sums of Consecutive Squares(COP5615):**

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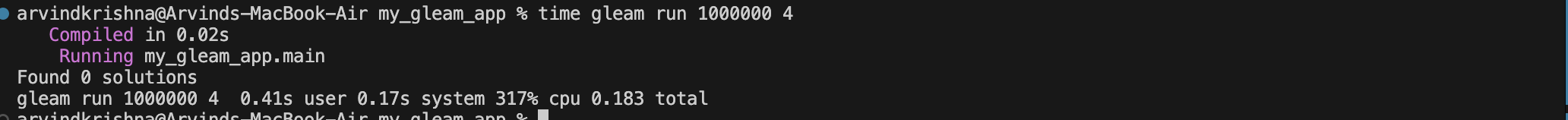
## **Work Unit Size Determination:**

**500 numbers per work unit resulted in the best performance for our implementation.**

### **How It Was Determined**

The work unit size of 500 was determined through performance testing. We tested different work unit sizes by running the program with different configurations and measuring the CPU Utilization and execution time. The size 500 was optimal because it achieved the highest CPU/Real time ratio.  
This indicated the most effective use of the parallel processing capabilities by avoiding idle time from large units and excessive overhead from smaller units.

**The result of running our program for lukas 1000000 4:**



**Real Time:** 183ms

**CPU Time:** 580ms (410ms user + 170ms system)

**CPU/Real Time Ratio:** 3.17 (around 3 cores)

**Largest Problem managed to solve:**

**Largest problem solved:**

gleam run 100000000 24

