To: Stephen Osiru
From: Daniel Nzambuli
Date: 22 January 2026
Title: Daily Report Day 9

Summary of Activities

- Learn about searching algorithms. Compared linear search and binary search. Ran a time test to see the efficiency of searching using both and understood the concept of divide and conquer

- Learned about graphs. How they can be implemented for social networks to show how people are related and navigation to show how points are connected. Implemented a weighted and undefined graphs

- Learned about sorting algorithms. Implemented $O(n^2)$ sorting through insert sort, bubble sort and selection sort. Started implementation of more efficient algorithms like quick sort and merge sort

- Had a seat down with Evans to put into perspective what production is at a software company. Learned about holistic growth in front-end, back-end, deployment and devOps.

Challenges Faced

- Missing vocabulary. I was left hanging for some of the discussion. I did however find out opportunities for learning starting with message brokers, code quality checkers, hosting and staging.

Key Outcomes

1. Got perspective on the way forward and goals to set for myself

2. learned about divide and conquer algorithms

3. learned about sorting algorithms

4. learned about rabbit and bull MQ to ensure service availability by checking request sources