Administrative:

I, Robert Barnes, was the only team member. The Team/Project name is "AirmanSort."

GitHub repo: https://github.com/barnesrj/COP3530P3

YouTube video link:

Proposal

The problem we are trying to solve is identifying a way to rank employees (in this case US Military Airmen). Many ratings, promotions, and other opportunities are based on subjective factors, and leave quantitative data unused. This search and rank method addresses that.

In addition to the various sort options, we propose a quantitative value that takes into account past performance (Weighted Airman Promotion System points) while also taking into account raw potential (from the Armed Services Vocational Aptitude Battery test), education (with coefficients to previous scores) and physical fitness.

I did all the work, since I was working alone. I appreciate the ability to do that, since I am overseas 7 hours away from eastern time zone. However, I didn't make much use of GitHub, because I didn't need to collaborate.

After the proposal, I decided to use a brute force method of sort to compare with a more efficient one. You can observe a multi-minute delay with the first bubble sort algorithm, compared with much faster heap sort. This was eye opening to me. I tend to go with the simplest algorithms, because they're easier to wrap my head around. Recursion gives me especially a hard time. But, it's worth it in terms of speed. I need to work in this area.