

Homework Task 3 – Password Cracking

Master reads the input and creates hint and password cracking queues

Whenever a worker becomes available he's scheduled with an open task from the queue

We initially crack all hints of a password before starting to crack a password

worker is cracking hint using Heap's Algorithm and "SHA-256" hashing

when hint is cracked, worker compares solution with input alphabet and sends missing char to master → password cracking task is updated with new search space (-1 char)

if all hints are cracked for one password →

master sends alphabet without the missing chars to worker →

worker cracks password by creating all possible permutations and comparing their

"SHA-256" hashes and sends the solution to master →

master sends cracked password to collector

when all passwords are cracked and sent to the collector, system terminates