

AoA2 – FINAL PROJECT Q4

1. What is the subproblem of this greedy algorithm and what are we trying to optimize?

We are trying to fill the cache with a certain capacity according to the requests and evicted requests when it is full. In order to handle these processes more quickly, we see all the requests are reversed, and when that request comes, we anticipate which requests will be evicted according to the fullness of the cache and which will be inserts.

2. What is the time complexity of the given implementation in terms of n (number of requests) and m (number of elements)? Explain briefly.

When we implement addresses vector we iterate n times and when we fill fif and execute print operation we iterate total $2m$ times. Therefore time coplexity is $O(m+n)$.