Lecture 17

CSE 331

Project Released

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Project details are now online at

https://cse.buffalo.edu/~nasrinak/cse331/SP23/project/index.html

(You can also access the page from the "Project" dropdown menu on the top navbar.)

Autolab will start accepting submissions soon, hopefully, by 9am tomorrow (there are ten deadlines spread over the rest of the semester).

There *is a lot* of details in the project pages so I would recommend that you read through very carefully as a group.

The same group for ALL problems

you will have to sign up your group separately for each problem on Autolab and we will check for group consistency at the *end of the semester*.

YOU NEED TO FORM GROUPS 10(TEN)!!!! TIMES ON AUTOLAB

Your group will have 10 problems to submit on Autolab (five coding problems and five reflection questions). However, **you will need to form your group for EACH submission separately**.

Quiz 1 this FRIDAY

note @342 stop following 105 views Actions

Quiz 1 on Friday, March 10

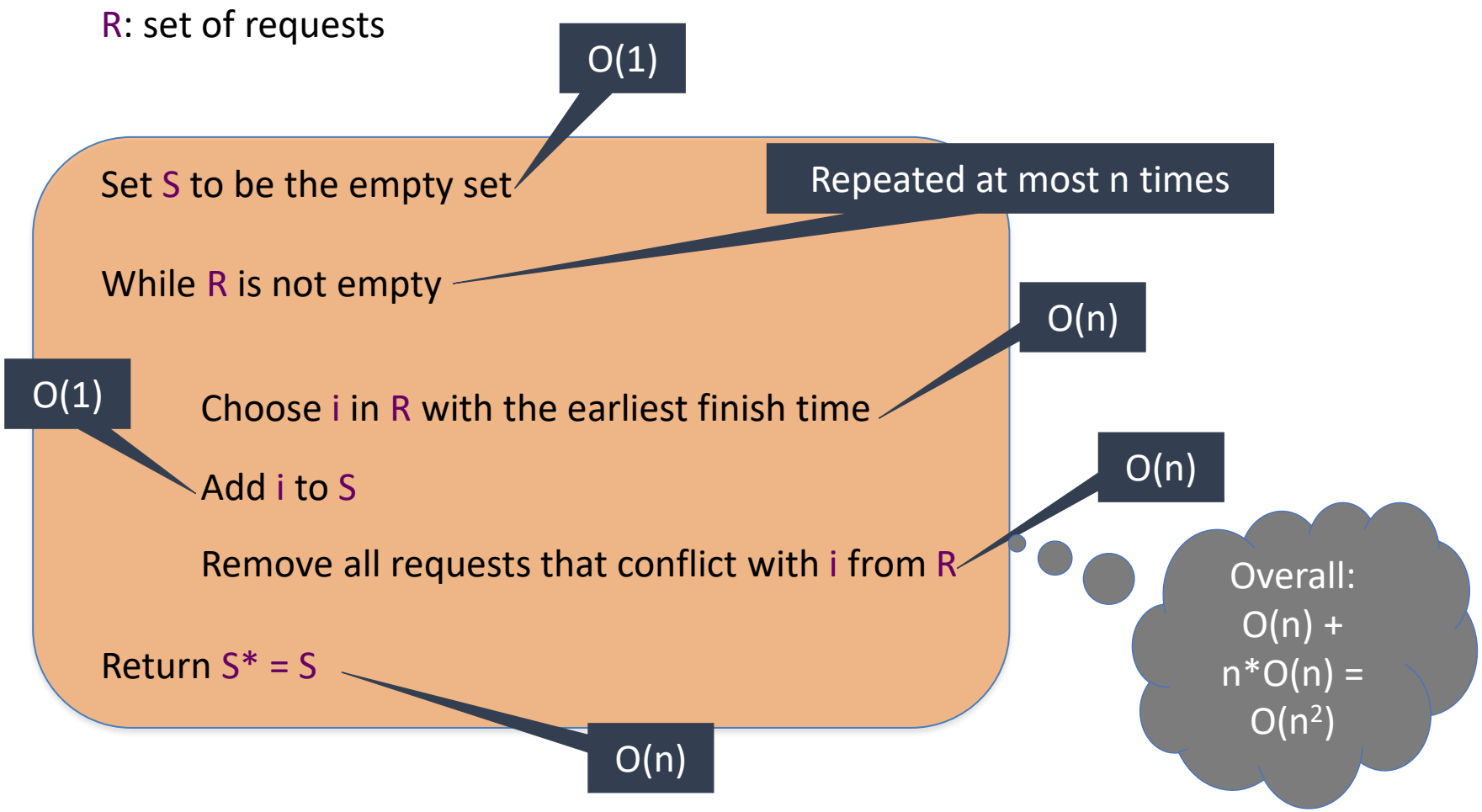
The first **in-class** quiz will be on **Friday, March 10**. We will have a 5 mins break after the quiz and the lecture will start after the break.

We will hand out the quiz papers 5 mins before the start of the class, but you will **NOT** be allowed to open the quiz to see the actual questions. However, you can use those 5 minutes to go over the instructions and get yourself in the zone.

There will be two T/F with justification questions (like those in the sample mid term 1). Also quiz 1 will cover all topics that we discussed in class till Wednesday, March 1.

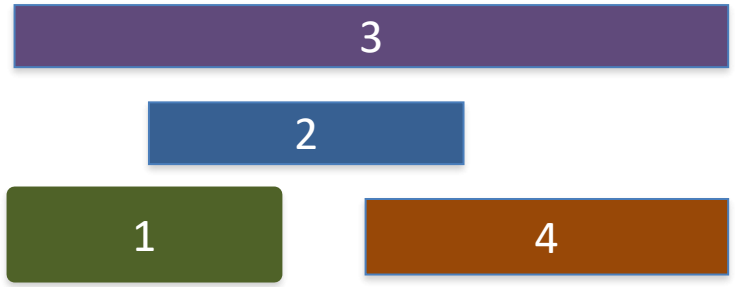
Also, like the mid-term, you can bring in one letter sized cheat-sheet (you can use both sides). But other than a cheatsheet and writing implements, nothing else is allowed.

Runtime analysis of Greedy Algo.



Algorithm implementation

Go through the intervals in order of their finish time



Check if s[i] < f(1)

In general, if jth interval is the last one chosen

Pick smallest i>j such that s[i] ≥ f(j)

O(n log n) run time

The final algo

O(n log n) time sort intervals such that $f(i) \leq f(i+1)$

O(n) time build array s[1..n] s.t. s[i] = start time for i

Add 1 to A and set f = f(1)

For i = 2 .. n

    If $s[i] \geq f$

        Add i to A

        Set f = f(i)

Return A* = A

Reading Assignment

Sec 4.1 of [KT]