

Lecture 18

CSE 331

Oct 6, 2014

Group/Algo registration deadline

BOTH DUE WED by 11:59pm!

note ☆ 1 views

You need to form a group of size EXACTLY 6 for mini project Actions ▾

A gentle reminder that the deadline to submit your group composition and your algorithm choice is due in about 1.5 weeks (Wednesday, October 8).

Note that you need to form groups of size EXACTLY SIX. In particular, if you have a group with <6 or >6 members, then you have missed your deadline and will lose points.

Forming groups of size 6 might take some time so if you have not started on this, I strongly suggest you start immediately to avoid losing the points for the mini project. These points will be some of the easiest ones in the course so do not lose them due to procrastination.

A related post that might be of interest: @37

More details on the mini project: <http://www.cse.buffalo.edu/~atr/courses/331/handouts/mini-project.pdf>

mini_project

edit good note 0 Just now by Anir Rudra

Quiz next Monday

In class

1:00pm-1:10pm sharp

Two True/False with justification Qs

More details on Piazza

note ☆

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Actions ▾

Quiz on Monday, October 13

A gentle reminder there will be a quiz in class from 1pm-1:10pm sharp on next **Monday, October 13**. To make sure you get the full ten minutes, please make sure you come to class ideally by 12:55pm.

Some other remarks:

- There will be two T/F with justification questions.
- It would help you to review the sample mid-term-1 (@230). I strongly encourage you to work on the sample mid-term without peeking at the solution.
- Anything we have covered in class is fair game: so anything in Chapters 1, 2 and 3 (except for Sec 1.2). Note that this implies that any reading assignment is also fair game.
- As with the mid-term exams, you can bring in **one** 8.5" X 11" review sheet. You can write anything that you want on the sheet as long as it is one sheet (you can use both sides). It can hand-written or typed up doesn't matter- however, you are not allowed to bring in a magnifying glass.
- During the quiz, you can only have the following things on the desk: the quiz, your review sheet, writing implements and maybe a drink. Everything else has to be on the floor.
- You can think of the quiz as a low pressure test since if you do better on the HW than both the quizzes combined, I'll substitute your HW average for the quiz portion. (See the syllabus for more details.) So please use the quiz as a chance to get more practice with T/F questions (under some time pressure).

quiz1

On how to prep for the mid-term

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The mid-term post

First, midterm-I is on **Monday, Oct 20** and midterm-II is on **Wednesday, Oct 22** during the usual class timings (i.e. 1:00-1:50 in NSC 215). Below are some comments that might be helpful to prepare for the mid-term.

- Work through the sample mid-term exams ([@230](#)). As I have already mentioned, do not use the sample mid-term to deduce **anything** about the relative coverage of different topics. (See points below for more on the coverage.) The sample mid-terms are meant for you to see the format of the questions. The actual mid term exams will be harder than the sample mid term exams.
- I encourage you to not look at the solutions to the sample mid-terms before you have spent some quality time by yourself on the mid-term questions first.
- Use the quiz on Oct 13 ([@233](#)) to get some practice in solving T/F questions under some time pressure.
- Review the HW problems/solutions. There will be at least one problem (among mid-term-I and mid-term-II) that will be closely related to a HW problem. If you did not pick up solutions to a HW (or misplaced them), they'll be available for pickup: see [@232](#)
- You **will** be under (a bit of) time pressure in the mid-term exams-- it might be useful for you to use the sample mid-term to decide on how much time you are going to spend on each question. Also read the instructions on the first page and keep them in mind during the exam (the instructions will of course be repeated on the exam sheet).
- If you need help attend the usual recitation, office hours. We will have extra office hours the week of the exam. See [@232](#) for details.
- The exam will be closed book and closed notes. However, you can bring in **one** 8.5" X 11" review sheet. (If you prefer you can bring in different review sheets for the two mid-term exams.) You can write anything that you want on the sheet as long as it is one sheet (you can use both sides). It can hand-written or typed up doesn't matter-- however, you are not allowed to bring in a magnifying glass. The review sheet is to make sure you do not spend time memorizing definitions etc. but can concentrate on the main ideas in the material we have covered. The exam (as you can probably make out from the sample mid-term) will focus on how well you understand the material and not how well you can memorize. However, see next point.

Feedback

note stop following 1 views Actions

Feedback for the course

Please give some feedback on how you think 331 is working for you:

<https://www.surveymonkey.com/r/57NTXSD>

As usual, giving feedback is voluntary and anonymous.

I encourage you to do so especially if you think something is not working well (and/or something is working well), so that I can try and make changes (and/or make sure I continue the good things respectively). I am especially interested in hearing any suggestion you might have so that I can improve. Over the years I have made many changes based on such feedback (e.g. using the microphone and the document camera as well as scanning notes from class).

Also I apologize for not keeping track of a couple of feedbacks that you guys gave in the last couple of weeks (for some reason survey monkey stopped sending me notification when new feedback came in. I hope to have something to say on those soon.

#pin

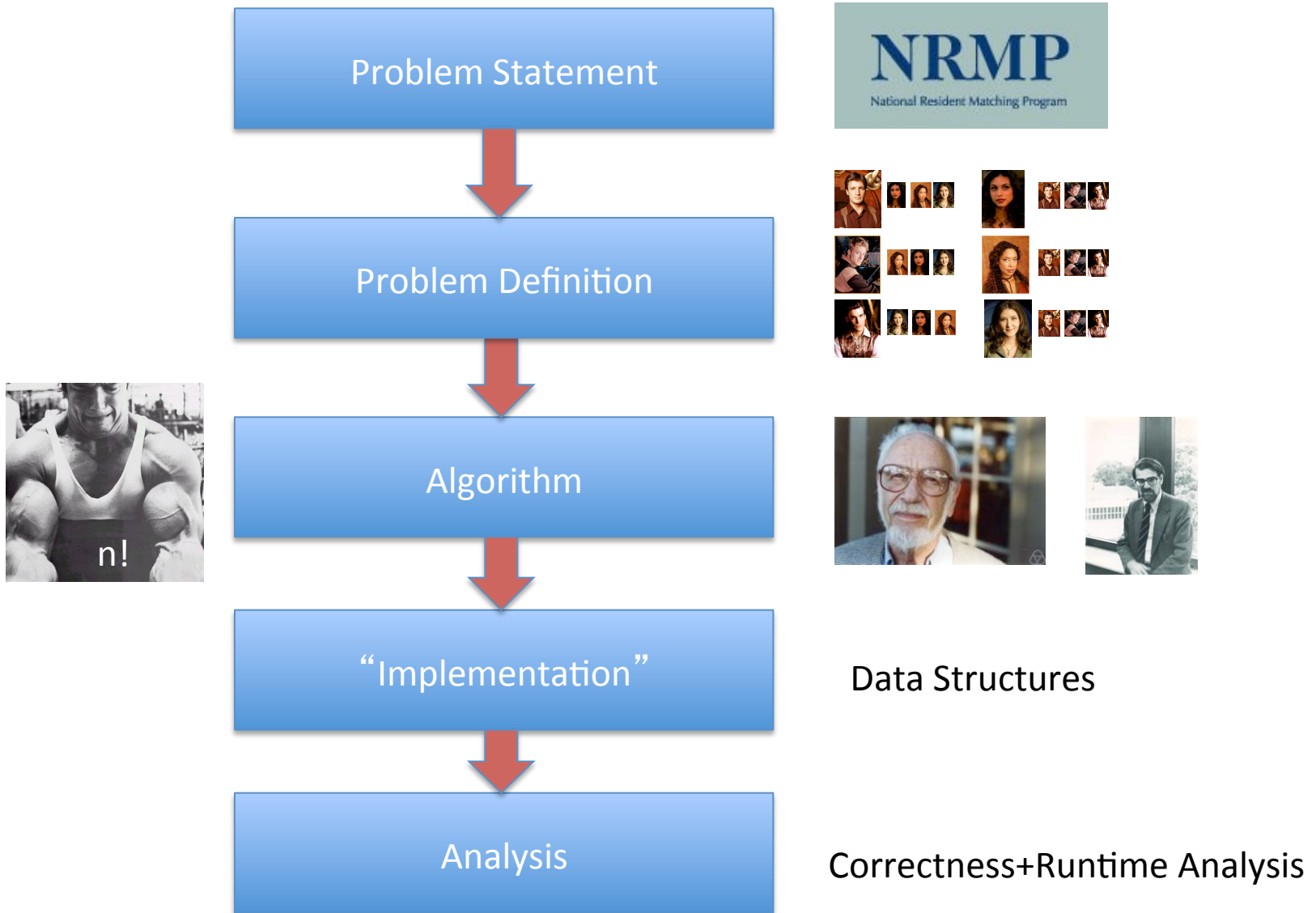
grading lectures recitation

edit good note 0 2 minutes ago by Adri Fudra

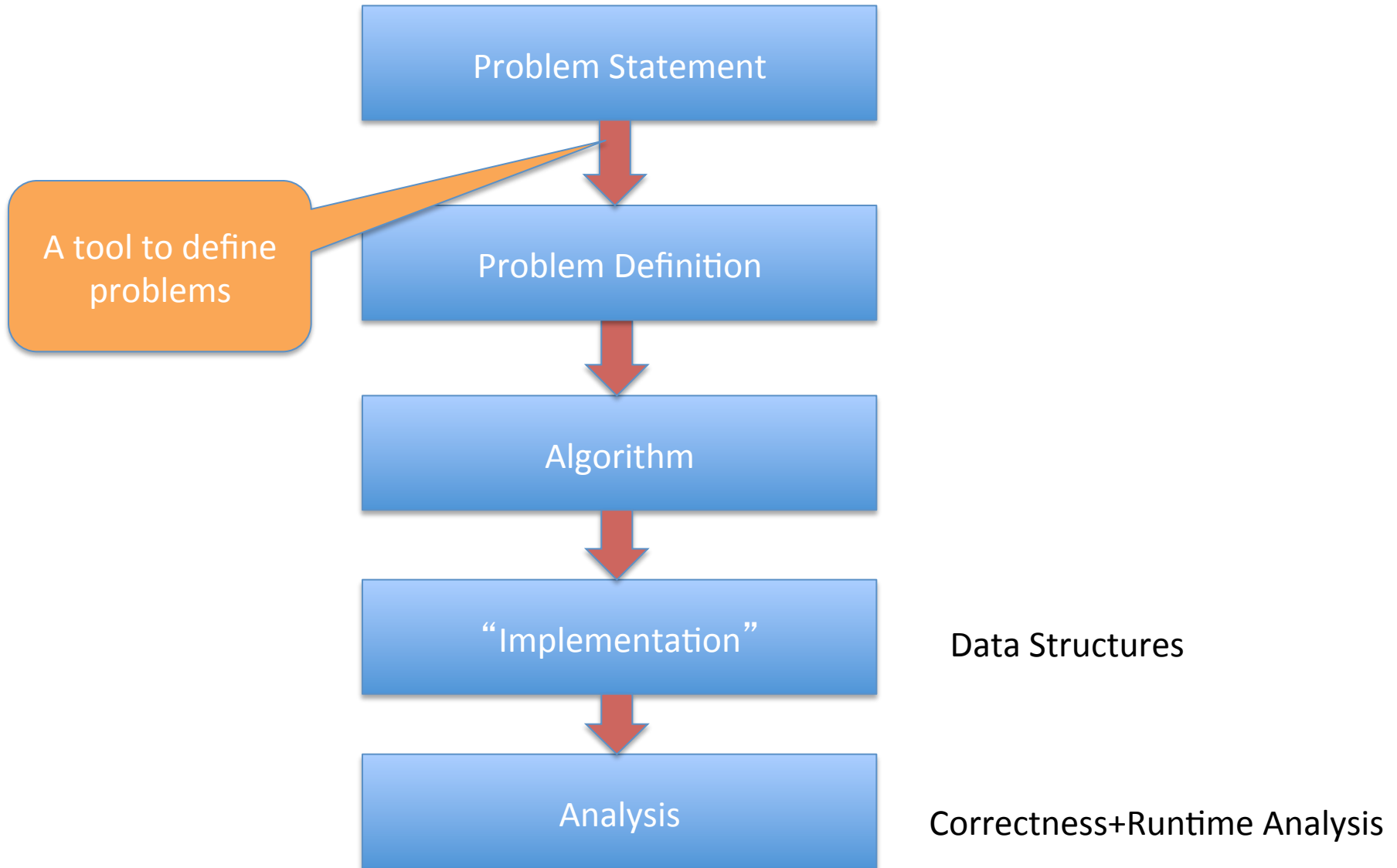
Questions?



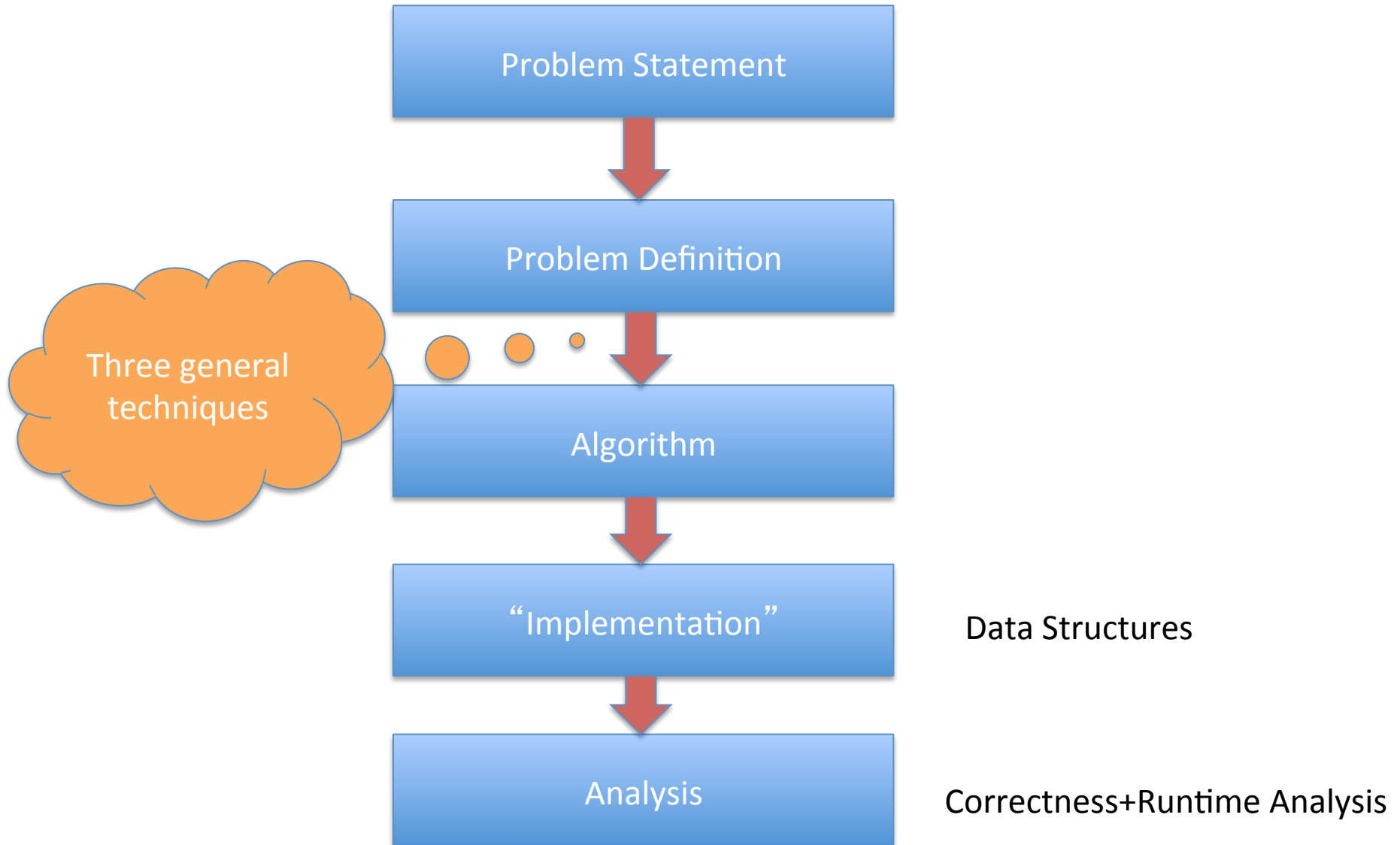
Main Steps in Algorithm Design



Where do graphs fit in?



Rest of the course



Greedy algorithms

Build the final solution piece by piece

Being short sighted on each piece

Never undo a decision

Know when you see it



End of Semester blues

Can only do one thing at any day: what is the maximum number of tasks that you can do?



Write up a term paper

Party!

Exam study

Homework

331 HW

Project

Monday

Tuesday

Wednesday

Thursday

Friday

Greedily solve your blues!

Arrange tasks in some order and iteratively pick non-overlapping tasks



Write up a term paper

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331 HW

Project

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Thursday

Friday

Ordering is crucial

Order by starting time



Write up a term paper

Party!

Exam study

331 HW

Algo = 1

Project

Monday

Tuesday

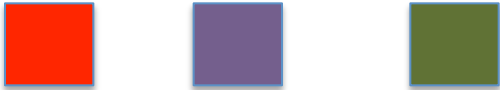
Wednesday

Thursday

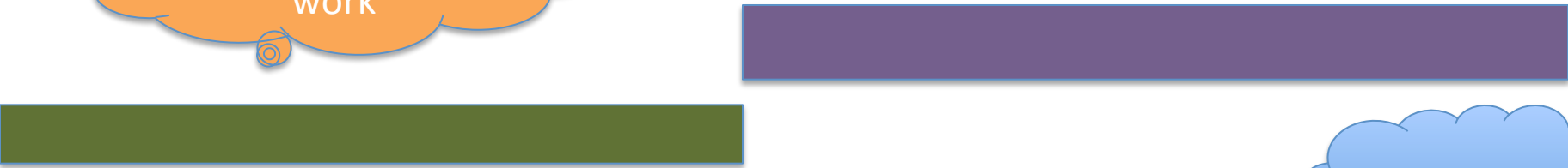
Friday

Another attempt

Order by duration



Ordering by least conflicts doesn't work



Algo = 1



The final algorithm

Order tasks by their END time



Write up a term paper

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Questions?



Today's agenda

Prove the correctness of the algorithm

Formal Algorithm

R : set of requests

Set A to be the empty set

While R is not empty

 Choose i in R with the earliest finish time

 Add i to A

 Remove all requests that conflict with i from R

Return A