CS196

#11

Announcements

No Homework!!

Midterm

Project Midterm Presentation

Hackathon

Midterm

The midterm will be a take-home exam and will take the place of HW7. You will get one week to work on the midterm, and will be able to work with your peers.

Project Midterm Presentation

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The project midterm presentation will take place on November 14th, during lecture.

Each group will have 5 minutes to present their project progress. Groups will be allowed to have up to 3 Powerpoint slides.

Hackathon

CS196

There will be a hackathon this Saturday, November 11th, from 12-4pm in 0216.

Teams should plan to attend the hackathon at the same time so they can prepare for midterm presentations.

Food will be provided.

Today

Algorithms + Recursion

Debugging

Hackerspaces

Mobile Dev: Siebel 1105

Data Science: Siebel 0216

Web Dev: Siebel 1304

Office Hours

No office hours this week due to no homework :)

Attendance

https://goo.gl/iYigpc

Keyword given at end of lecture

CS196

Algorithms + Recursion

Questions?

CS196

Debugging 101

The Typical Approach...?

How long do you usually spend writing code vs debugging it?

When does your code have more bugs? less?

What do you do when confronted with an error?

Start with better code

Develop an algorithm

Write it down in English

Write psuedocode

Write actual code on paper

Now code (and comment!!!!!!!!!!!!!!!!!!)

Clarity, Modularization

Break smaller tasks off into their own functions

Easier to narrow down which is producing the bug

Name variables with meaning so it's clear what each should be representing

Now that you've written amazing code...

Use print statements to trace variables

Place at strategic points in the code

Is a certain variable okay before a segment of code? What about after?

You might think you know exactly what your code is doing...

Become an artist

Use drawings and diagrams to visualize what's going on

Follow what you actually wrote, not what you *think* you wrote

Test edge cases and gray areas in your code

The Debugger is Your Friend :)

Don’t be intimidated by all the options and tools

Learning to use it efficiently can save time and effort

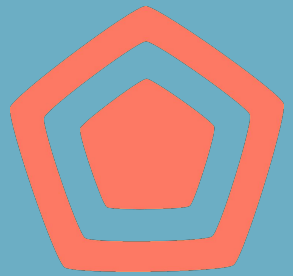
Easier to trace multiple variables and keep tabs on everything at once

Talk about it

Explain what each line of your code does

Pay extra attention to details like conditions, initialization, flow of control structures

Use moderation when actually asking for help



Keyword

Chapman

https://goo.gl/iYigpc