

This is CS50

2/3

of CS50 students have never taken CS before



MARIO
000700

1 x 01

WORLD
1-1

TIME
287



uggcf://lbhgh.or/bUt5FWLEUN0

Ballot

Alice

Ballot

Alice

Ballot

Bob

Ballot











Bob

Ballot

Charlie



Big Board speller

Rank 	Name 	Time 	Load 	Check 	Size 	Unload 	Memory 	Heap 	Stack 
1	Elijah Tai Staff	5.435 s	0.449 s	4.986 s	0.000 s	0.000 s	11.8 kB	4.6 kB	7.2 kB
2	Matthew Shabet Staff	5.438 s	0.478 s	4.959 s	0.000 s	0.000 s	11.8 kB	4.6 kB	7.2 kB
3	Sasha Lioutikova	5.720 s	0.685 s	5.036 s	0.000 s	0.000 s	7.9 kB	4.6 kB	3.2 kB
4	Thomas Ballatore Staff	5.858 s	0.934 s	4.924 s	0.000 s	0.000 s	7.9 kB	4.6 kB	3.2 kB
5	Peter Phan	5.877 s	0.640 s	5.228 s	0.000 s	0.009 s	8.0 MB	8.0 MB	2.9 kB
6	Katherine Engelman	5.944 s	0.777 s	5.157 s	0.000 s	0.009 s	8.0 MB	8.0 MB	3.0 kB
7	Ashley Zhuang	5.947 s	0.581 s	5.145 s	0.000 s	0.220 s	8.0 MB	8.0 MB	1.1 kB
8	Sayak Maity	5.986 s	0.554 s	5.428 s	0.000 s	0.004 s	2.3 MB	2.3 MB	2.9 kB
9	Jack Boettcher	6.022 s	0.794 s	5.183 s	0.000 s	0.045 s	9.2 MB	9.2 MB	2.9 kB
10	Rohil Badkundri	6.023 s	0.716 s	5.091 s	0.000 s	0.216 s	8.0 MB	8.0 MB	3.0 kB

[illegible]



what ultimately matters in this course is not so much where
you end up relative to your classmates but where
you end up relative to yourself when you began

CS50

Brian Kernighan

bwk@das

110-D Pierce Hall

Mon 2-3, Tue 10-11

Review Session Sci Ctr A, Friday

READ: Roberts, ch 1&2

Comer, ch 1, 18, 19

Functions - instructions that do the work.

`/usr/include/stdio.h` ← library is here
we `stdio.h` = word count

Arguments - Info that's passed from one function to another, to have something done by / performed on it.

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A

65

01000001



72

73

33

H

72

I

73

!

33

11111011000000010

128514



Algorithm - Precise sequence of steps
for getting something done.

Imp't: Precision!
Correctness!

Programming: Process of taking an algorithm
and putting it into a language
a computer can process.

Fortran - Designed to make working
1960s w/ physics, mechanics problems easy.

A compiler translated the high-level
language into low-level assembly language.

1970s - System-programming languages.
People could write OSes - moved
away from assembly language.

1980s - Object-oriented languages.
Made it easier for people to code -
harder to make mistakes - still not impossible,
of course!

High level - Takes care of more details.
Puts more control in programmers' hands.

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algorithms

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for getting something done.

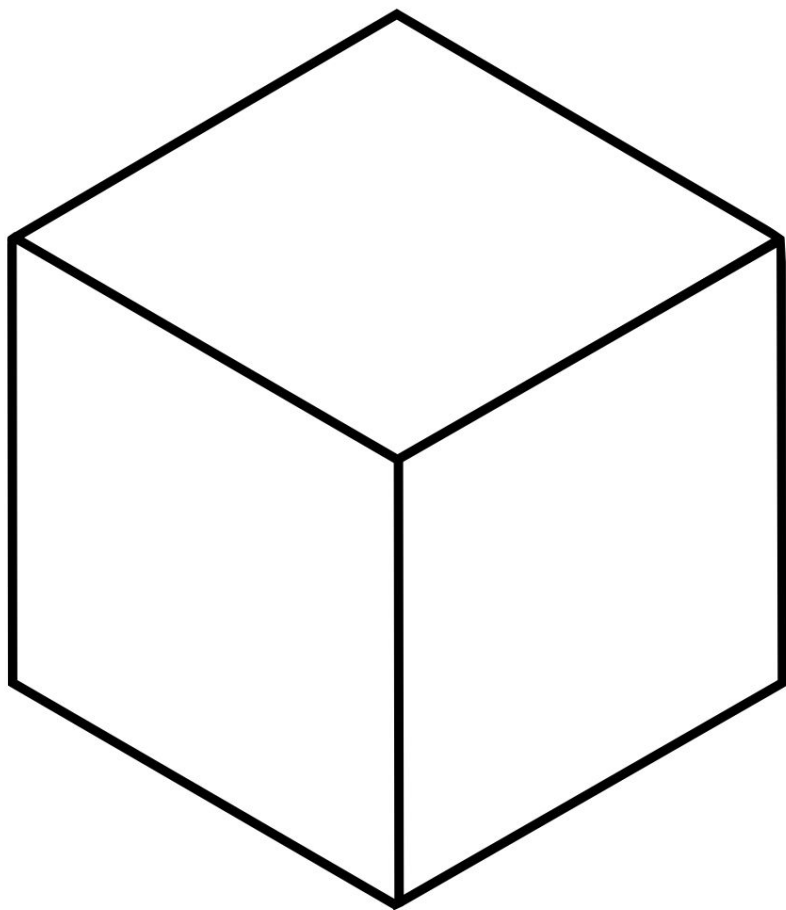
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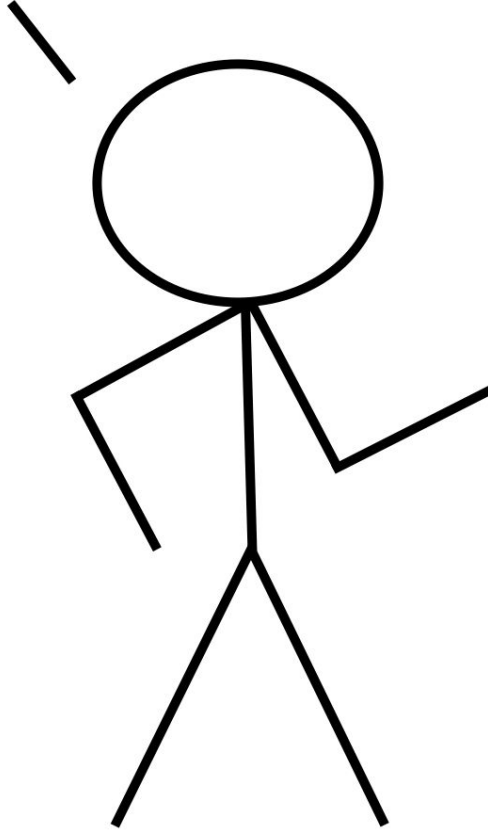
Algorithm - Precise sequence of steps
for getting something done.

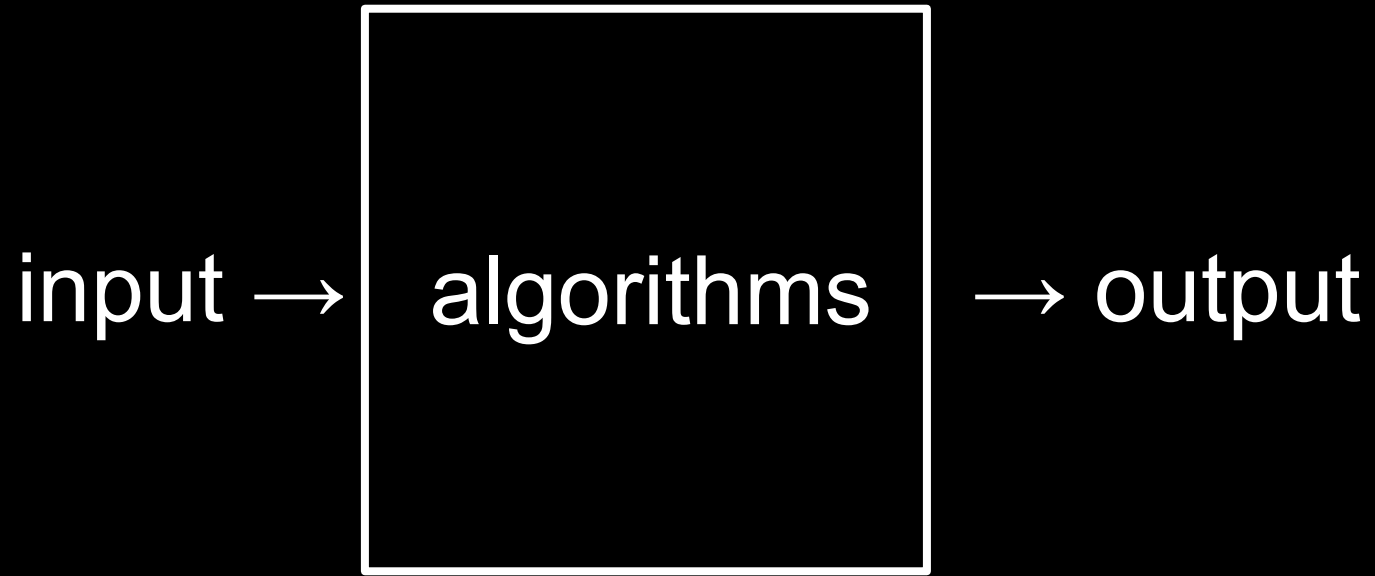
Imp't: Precision!
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Programming: Process of taking an algorithm
and putting it into a language
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Hi

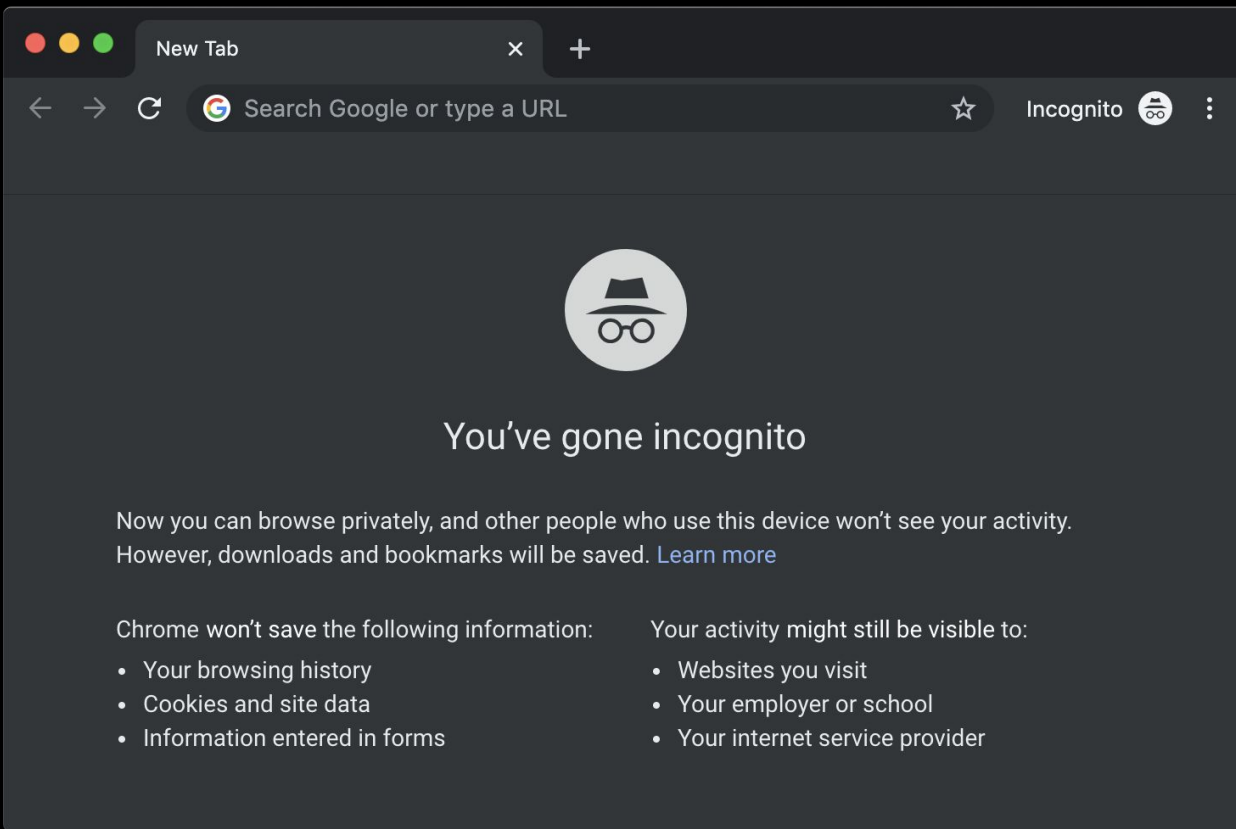




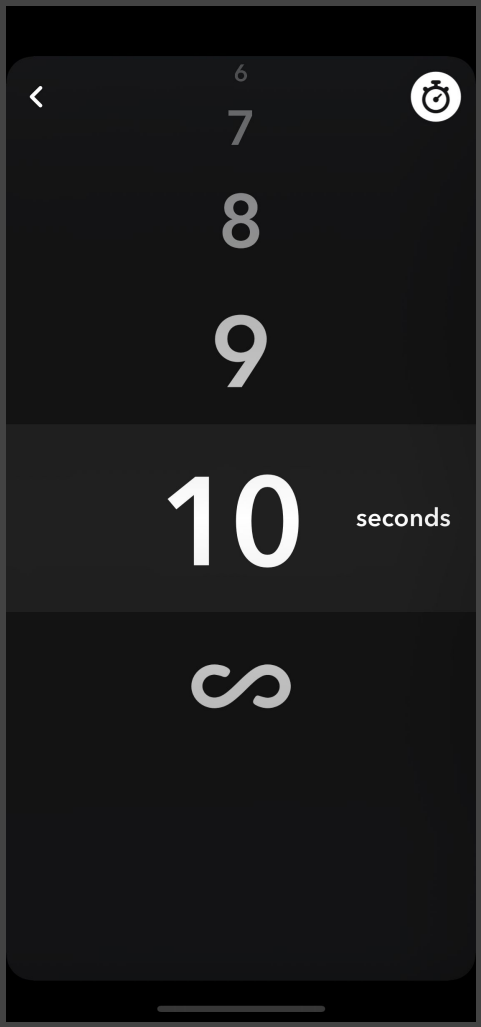
information

1. 123456
2. 123456789
3. qwerty
4. password
5. 111111
6. 12345678
7. abc123
8. 1234567
9. password1
10. 12345

information



information

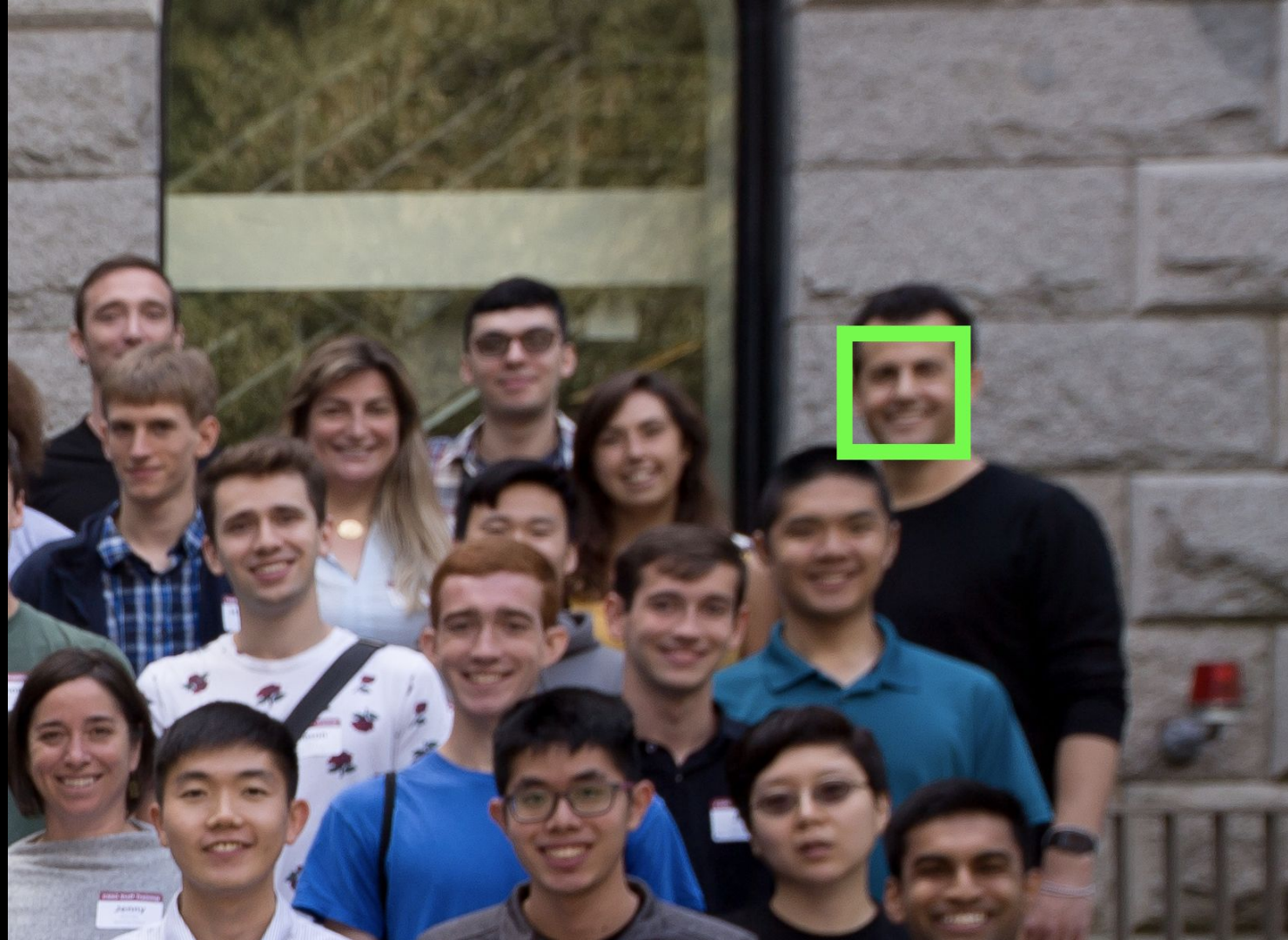


```
DELETE FROM snaps WHERE id = ?;
```

```
UPDATE snaps SET deleted = true WHERE id = ?;
```

information





information

cs50.harvard.edu wants to



Know your location

Block

Allow

Tracks

web programming

with HTML, CSS, and JavaScript
(plus Python and SQL)



C\$50 Finance: Portfolio

+

← → ↺

Search Google or type a URL

Incognito

C\$50 Finance

Quote Buy Sell History

Log Out

Symbol	Name	Shares	Price	TOTAL
NFLX	Netflix, Inc.	1	\$287.52	\$287.52
CASH				\$9,712.48
				\$10,000.00

Data provided for free by [IEX](#). View [IEX's Terms of Use](#).

mobile app development

for iOS with Swift
for Android with Java



9:13



< Pokédex

Charizard



Charizard

#006

Fire

Flying

Charizard flies around the sky in search of powerful opponents. It breathes fire of such great heat that it melts anything. However, it never turns its fiery breath on any opponent weaker than itself.



Pokedex



Charizard

#006

Fire

Flying

Charizard flies around the sky in search of powerful opponents. It breathes fire of such great heat that it melts anything. However, it never turns its fiery breath on any opponent weaker than itself.

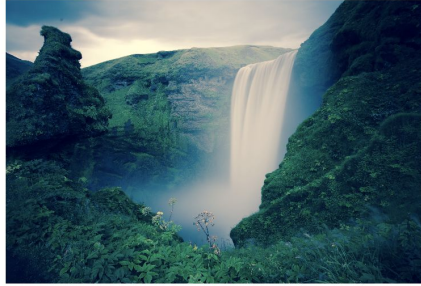
9:08



[Save](#)

Fiftygram

[Choose Photo](#)



Sepia

Noir

Vintage



9:52

Fiftygram



CHOOSE PHOTO

SEPIA

9:09



Notes



Grocery list



Class schedule



A series of horizontal lines for writing notes, starting below the 'Class schedule' entry and extending to the bottom of the screen.

Notes

Grocery list

Class schedule



game development

with Lua





Pong

FPS: 60

Welcome to Pong!
Press Enter to begin!





Final Project

Python

python.org

Visual Studio Code

code.visualstudio.com

Xcode

developer.apple.com/xcode

Android Studio

developer.android.com/studio

CS50 Hackathon





















CS50 Fair











Staff





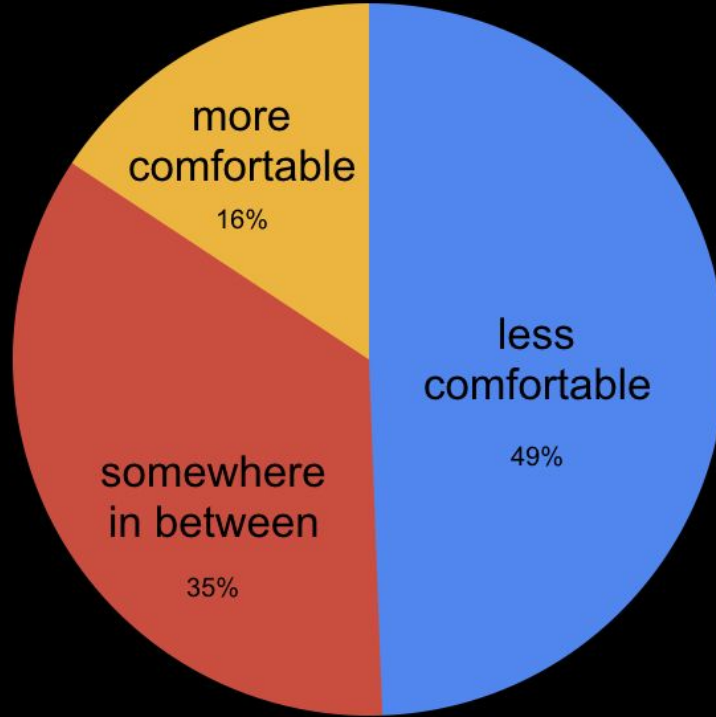






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more
comfortable

100%



This was CS50