

Sp18 CS 61B Discussion 14

Welcome!

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Announcements

- HW 5 due 4/25

Quiz Instructions

- If you haven't yet, please also **neatly** put your email address **outside the name box** if you want to be emailed!
- Bubble number **41**.

Forms

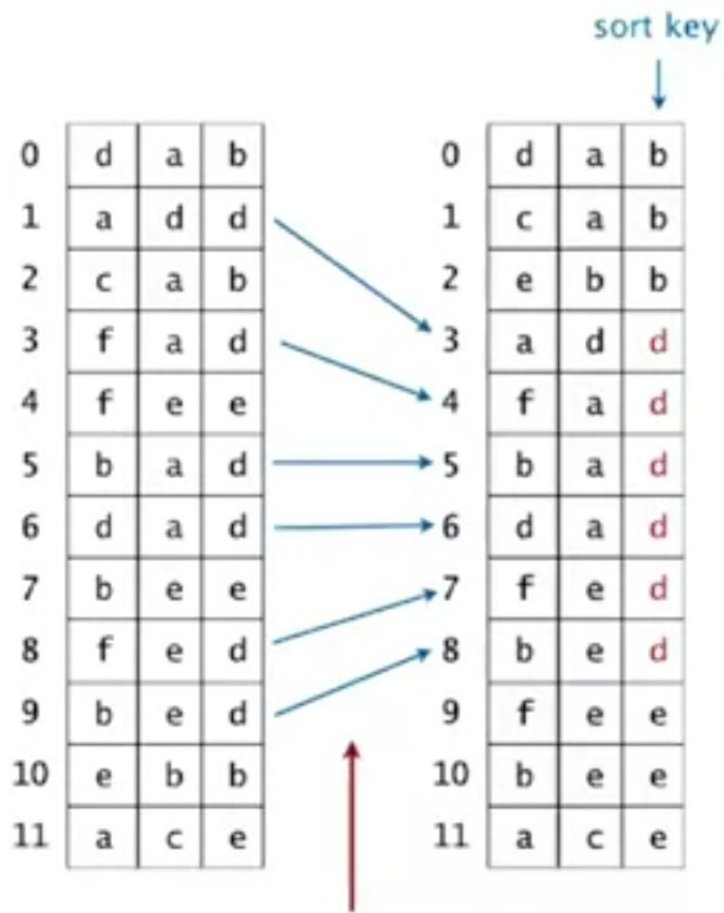
- Want to meet with me specifically?
 - <https://goo.gl/forms/3HyKxt0ZAWHKRmij2>
- Want to meet with **any** TA (not me)? @3258
- Survey:
 - <https://goo.gl/forms/qxZ8qzS47HB62wiE3>

Radix Sorts

Radix Sort Runtime

- Radix sort runtime: $O(N)$
- You may see some definitions saying $O(wN)$.
 - If you know the length of your strings, you can tighten your runtime in this way.

LSD Radix Sort Magic



sort key

0	d	a	b
1	c	a	b
2	f	a	d
3	b	a	d
4	d	a	d
5	e	b	b
6	a	c	e
7	a	d	d
8	f	e	d
9	b	e	d
10	f	e	e
11	b	e	e

sort key

0	a	c	e
1	a	d	d
2	b	a	d
3	b	e	d
4	b	e	e
5	c	a	b
6	d	a	b
7	d	a	d
8	e	b	b
9	f	a	d
10	f	e	d
11	f	e	e

sort must be stable
(arrows do not cross)

LSD Radix Sort Magic

- After first pass, look at **cab** and **fad**.
- The second counting sort pass counts this as a **tie**.
 - **But due to stability**, $cab < fad$ because $b < d$.

Q1: Momo Masala

Momo Masala Solutions

- <https://tbp.berkeley.edu/exams/5544/download/>

Q2: Pearbnb

Pearbnb Solutions

- <https://inst.eecs.berkeley.edu/~cs61b/fa17/materials/disc/discussion14sol.pdf>

Final Thoughts

Impact (CS 195)

Impact

- <https://www.youtube.com/watch?v=ll4Ct2n5FiE>
(1:35)

Teach

Teach

- Lab Assist (Summer 2017): <https://goo.gl/SSsWzu>
- Info-session: Monday, April 30, 2-4pm (430 Soda)
 - Meet the staff, learn your role, discuss ideas
- Future semesters: Tutor -> TA -> Summer Instructor

Live

Wrap-Up + Ask Me Anything