

Chapter 4, Graphs:

- ▶ Concepts and implementation (last week Friday)
- ▶ Traversal (**Today** *and in lab Thursday*)
- ▶ Minimum spanning trees (next week Friday and week-after Monday)
- ▶ Single-source shortest paths (Feb 26 and 28)

Today:

- ▶ Finish talking about graph implementation
- ▶ Traversal problem and intuition
- ▶ BFT and DFT similarities and differences
- ▶ Analysis

	Adjacency matrix	Adjacency list
Space	$\Theta(V^2)$	$\Theta(V + E)$
<code>adjacent(u, v)</code>	$\Theta(1)$	$\Theta(deg(u))$ (expected case)
<code>getAdjacents(u)</code>	$\Theta(V)$	$\Theta(deg(u))$

Coming up:

*Do **heaps and priority queue** project (due Wed, Feb 19)*

*Due **Thurs, Feb 20** (but spread it out):*

Read Section 4.(1–3)

Do Exercises 4.(1 & 19).

Take graph quiz

*Due **Mon, Feb 24***

Read Section 4.4

Do Exercises 4.(40, 42, 43)

(See comments on Canvas)

Take MST quiz