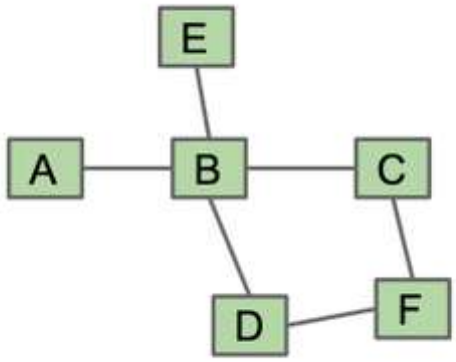
23.4 Exercises

Factual

1. Suppose we want to find the vertex with minimal degree (fewest neighbors). Is an adjacency matrix or adjacency list better?

> Problem 1

Procedural



1. For the graph above, write the representation for the adjacency matrix representation.
2. Repeat (1) for the list of edges representation.
3. Repeat (1) for the adjacency list representation.
4. Run BFS starting from A for the graph above, and list the order in which vertices are visited. Break ties alphabetically.
5. Run DFS starting from A for the graph above, and list the postorder/postorder traversals. Break ties alphabetically.

- Problem 1
- Problem 2
- Problem 3
- Problem 4
- Problem 5

Metacognitive

1. Suppose we find some shortest path from `a` to `b` using BFS. Consider a vertex `c` that is on the path between `a` and `b`. What can we say about the shortest path from `c` to `b`?
2. Problem 4c from the Spring 2015 Midterm 2.

- Problem 1
- Problem 2

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24. Shortest Paths

Last updated 1 year ago