

# Notes on the Final

- **Value:** 25% of your grade
- **Format:**
  - in-person, closed book
  - you will be allowed to use one A4 page of notes (front and back). If you type it, but please avoid too small fonts.
  - you will be provided with questions and papers to write your solutions.
- **When:**
  - 10:15am (Monday, March 18)
  - 1:30 hour for the exam
- **Helpful Resources:**
  - Our slides and your own lecture notes
  - Questions in our quizzes and assignments are good examples

# Possible topics in Final

- Binary search tree: definition, complexity of operations (worst case/average time), tree traversal
- B-tree: definition and insertion
- Red-Black tree: definition, insertion, and deletion
- Designing efficient algorithms for a problem using the data structures we discussed (e.g., trees, heaps).

# Not covered in Final

- Formal proofs for heights of trees
- Input permutations to generate a BST shape
- Formal proofs of amortized analysis
- AVL trees, splay trees
- Hash tables
- Loop invariants