

EXAM TOPICS (Lectures 0 through 7)

1. Java basics (you should know this as context for the rest of the course)
2. Object-oriented programming
 - a. Class
 - b. Object
 - c. equals() vs ==
3. Interfaces and implementations
 - a. ADT
 - b. Interface
 - c. Collections
 - d. Implementation
 - e. ArrayList example
4. Sets and maps
 - a. Sets
 - i. HashSet
 - ii. TreeSet
 - b. Maps
 - i. HashMap
 - ii. TreeMap
5. Hashing
 - a. Conceptually, methods for HashSet and HashMap
 - b. Collisions
 - c. SUHA
6. Runtime efficiency
 - a. String + operator vs string buffer example
7. Asymptotic (Big-O) analysis
 - a. Big-O general rules
 - b. Common examples for common Big-O values

Know the runtime complexity for method implementations.