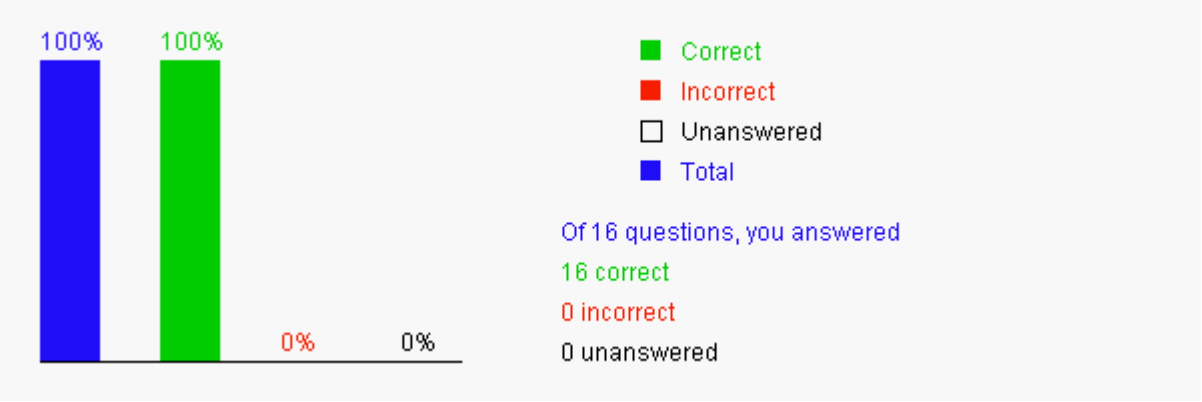
This quiz is for students to practice. A large number of additional quiz is available for instructors using Quiz Generator from the Instructor's Resource Website.
Videos for Java, Python, and C++ can be found at https://yongdanielliang.github.io/revelvideos.html.

Chapter 27 Hashing



Please send suggestions and errata to Dr. Liang at y.daniel.liang@gmail.com. Indicate which book and edition you are using. Thanks!

Section 27.2 What Is Hashing?

27.1 A hashing function _____.

- A. stores an element in the hash table
- (•) B. maps a key to an index in the hash table

Your answer is correct

27.2 If each key is mapped to a different index in the hash table, it is called _____.

- A. normal hashing
- (•) B. perfect hashing

Your answer is correct

27.3 A collision occurs _____.

- (•) A. when two or more keys are mapped to the same hash value.
- B. when two elements have the same key value.
- C. when two elements are mapped to the same key.

Your answer is correct

Section 27.3 Hash Functions and Hash Codes

27.4 Every object has the hashCode() method.

- (•) A. True
- B. False

Your answer is correct

27.5 What is the return type value for the hashCode() method?

- A. byte
- B. short
- (•) C. int
- D. long

Your answer is correct

27.6 True or False? Two objects have the same hash codes if they are equal.

- (•) A. True
- B. False

Your answer is correct

27.7 True or False? Two objects are equal if they are equal.

- A. True
- (•) B. False

Your answer is correct 

27.8 For an Integer object with value 20, what is its hashCode?

- A. 10
- B. 20
- C. 30
- D. 40

Your answer is correct 

27.9 If two strings are equal, the two strings have the same hashCodes.

- A. True
- B. False

Your answer is correct 

27.10 True or False? Assume N and hashCode are positive and N is an integer of power of 2, hashCode % N is the same as hashCode & (N - 1).

- A. True
- B. False

Your answer is correct 

27.11 1 & 3 is _____.

- A. 0
- B. 1
- C. 2
- D. 3

Your answer is correct 

27.12 1 << 2 is _____.

- A. 2
- B. 3
- C. 4
- D. 5

Your answer is correct 

Section 27.4 Handling Collision Using Open Addressing

27.13 When a collision occurs during the insertion of an entry to a hash table, _____ finds the next available location sequentially.

- A. linear probing
- B. quadratic probing
- C. double hashing.

Your answer is correct 

Section 27.5 Handling Collision Using Separate Chaining

27.14 _____ is to find an open location in the hash table in the event of collision.

- A. Open addressing
- B. Separate chaining

Your answer is correct 

27.15 The _____ places all entries with the same hash index into the same location, rather than finding new locations.

- A. open addressing scheme
- B. separate chaining scheme

Your answer is correct 

Section 27.6 Load Factor and Rehashing

27.16 _____ measures how full the hash table is.

- A. Load factor
- B. Threshold

Your answer is correct