Congratulations! You passed!

Grade received 90% | Latest Submission Grade 90% | To pass 80% or higher

Go to next item

1. What would you be expecting to demonstrate in your technical interview? 1 / 1 point

- Your general background and hobbies?
- (selected) Your ability to code.
- Your softskills.

Correct
That's correct! You may be expected to demonstrate your ability to code in an interview. This can usually be done using pseudocode.

2. How do computers store and represent information? 1 / 1 point

- HTML
- Java
- (selected) Binary

Correct
That's correct! Computers use binary as a way of storing and representing information.

3. If an application returned a result after one computation it ran in: 1 / 1 point

- `O(log(n))`
- (selected) `O(1)`
- `O(n)`

Correct
That's correct. This means that it returns after the first check.

4. Space complexity is more concerned with: 1 / 1 point

- Continuum
- Time
- (selected) Space

Correct
That's correct! It is a metric that establishes the space a program takes.

5. Which of the following are linear structures? 1 / 1 point

- (selected) Arrays
- Graphs
- Trees

Correct
That's correct. Arrays store information in a linear structure.

6. True or false: Lists are objects therefore can be sorted. 1 / 1 point

- (selected) True
- False

Correct
That's correct! Casting a list as an object means that it has the extra functionality to sort its contents.

7. What is in-place swapping? 1 / 1 point

7. What is in-place swapping? 1 / 1 point

- ○ Moving values in an array if the element being added is smaller.
- ◉ Swapping items in an array in place of creating a new structure.
- ○ Using different types of data structures as a container to emulate certain characteristics.

Correct
That's correct! This saves space by not having to create new variables.

8. Which of the following is valid terminology for trees. 1 / 1 point

- ☑ Branch

Correct
That's correct. This refers to a series of connected nodes.

- ☑ Root

Correct
That's correct! It is the base node in a tree.

- ☑ Leaf

Correct
That's correct! A node with no children nodes.

9. In relation to hash tables, what is meant by the load factor? 1 / 1 point

- ○ It is how much space a hash table has.
- ○ It relates to the amount of space allocated to the index table.
- ◉ It relates to bucket capacity before a split is made.

Correct
That's correct! Hash tables increase in size when they are near a certain threshold. This is called the load factor.

10. The knapsack problem is an analogy to demonstrate which task in programming? 0 / 1 point

- ○ Handling CPU loads.
- ○ Creating dictionaries that use key value pairs when making lookups.
- ◉ Dynamic programming

Incorrect
Not quite. Please review the video on **Dynamic programming** Module 3, Lesson 2: **Working with Algorithms**.