REC-OCATS-1 REC-OCATS-1

CS23336-Introduction to Python Programming

Started on	Saturday, 9 November 2024, 5:44 PM
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Completed on	Saturday, 9 November 2024, 5:54 PM
Time taken	9 mins 38 secs

Question 1

Complete
Marked out of 1.00
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Question text

In binary search, how is the middle element determined?

Question 1 Answer

a.
By starting from the first element

b.
By comparing each element sequentially

c.
By using a hash function

d.
By dividing the list length by two

Question 2

Complete
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Flag question

Question text

What is the best-case time complexity of linear search?

Question 2 Answer

a.
O(log n)

b.
O(1)

c.
O(n log n)

d.
O(n)

Question 3

Complete
Marked out of 1.00
Flag question

Question text

In which situation is linear search more efficient than binary search?

Question 3 Answer

a.
When the list is large and unsorted

b.
When the list is small and unsorted

c.
When the list is large and sorted

d.
When the list is small and sorted

Question 4

Complete
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Flag question

Question text

Which of the following is a conventional searching technique?

Question 4 Answer

a.
Binary search

b.
Hashing

c.
Dynamic search

d.
Linear search

Question 5

Complete
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Question text

In linear search, how is the element searched?

Question 5 Answer

a.
By using a hash function

b.
By comparing each element in the list sequentially

c.
By dividing the list into halves

d.
By sorting the list first

Question 6

Complete
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Flag question

Question text

Which of the following is not a limitation of binary search algorithm?

Question 6 Answer

a.

Binary search algorithm is not efficient when the data elements more than 1500

b.

Requirement of sorted array is expensive when a lot of insertion and deletions are needed

c.

There must be a mechanism to access middle element directly

d.

Must use a sorted array

Question 7

Complete
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Flag question

Question text

In which type of search is the list divided into smaller sublists during the search process?

Question 7 Answer

a.
Linear search

b.
Hash search

c.
Sequential search

d.
Binary search

Question 8

Complete
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Flag question

Question text

Which of the following is a type of searching method?

Question 8 Answer

a.
Bubble search

b.
Merge search

c.
Quick search

d.
Linear search

Question 9

Complete
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Flag question

Question text

Which of the following best describes the process of a linear search?

Question 9 Answer

a.
Dividing the list in half repeatedly

b.
Skipping every second element

c.
Sorting the list before searching

d.
Checking each element sequentially

Question 10

Complete
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Question text

What type of search would be most appropriate for finding an element in a list that is frequently updated?

Question 10 Answer

a.
Interpolation search

b.
Linear search

c.
Binary search

d.
Hash search

Question 11

Complete
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Question text

In linear search, if the target element is not found in the list, what is the result?

Question 11 Answer

a.
The first element is returned

b.
An error is raised

c.
The search is considered unsuccessful

d.
The last element is returned

Question 12

Complete
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Flag question

Question text

Given an array arr = {45,77,89,90,94,99,100} and key = 99; what are the mid values(corresponding array elements) in the first and second levels of recursion?

Question 12 Answer

a.

89 and 94

b.

89 and 99

c.

90 and 99

d.

90 and 94

Question 13

Complete
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Flag question

Question text

What is the first step in binary search?

Question 13 Answer

a.
Sort the list

b.

Divide the list into two equal parts

c.
Compare the target element with the first element in the list

d.
Compare the target element with the middle element in the list

Question 14

Complete
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Question text

During a binary search, what happens if the target element matches the middle element?

Question 14 Answer

a.
The list is sorted

b.
The search continues in the right sublist

c.
The search continues in the left sublist

d.
The search ends successfully

Question 15

Complete
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Flag question

Question text

Which method of searching involves sequentially comparing each element until a match is found?

Question 15 Answer

a.
Hashing

b.
Binary search

c.
Jump search

d.
Linear search

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