REC-OCATS-1 REC-OCATS-1

CS23336-Introduction to Python Programming

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Time taken	10 mins 12 secs

Question 1

Complete
Marked out of 1.00
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Question text

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

Question 1 Answer

a.
O(log n)

b.
O(n log n)

c.
O(n)

d.
O(1)

Question 2

Complete
Marked out of 1.00
Flag question

Question text

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

Question 2 Answer

a.
Hash search

b.
Linear search

c.
Binary search

d.
Sequential search

Question 3

Complete
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Flag question

Question text

What is the advantage of binary search over linear search?

Question 3 Answer

a.
Binary search has a lower time complexity on large, sorted lists

b.
Binary search does not require dividing the list

c.
Binary search works on unsorted lists

d.
Binary search can find multiple instances of the target element

Question 4

Complete
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Flag question

Question text

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

Question 4 Answer

a.
Checking each element sequentially

b.
Skipping every second element

c.
Dividing the list in half repeatedly

d.
Sorting the list before searching

Question 5

Complete
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Flag question

Question text

What is searching in the context of computer science?

Question 5 Answer

a.
Determining whether an element is present in a list

b.
Inserting elements into a list

c.
Sorting elements in a list

d.
Deleting elements from a list

Question 6

Complete
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Question text

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

Question 6 Answer

a.

89 and 94

b.

90 and 100

c.

90 and 99

d.

94 and 99

Question 7

Complete
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Flag question

Question text

Which of the following is a conventional searching technique?

Question 7 Answer

a.
Linear search

b.
Dynamic search

c.
Binary search

d.
Hashing

Question 8

Complete
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Question text

In binary search, if the target element is less than the middle element, where does the search continue?

Question 8 Answer

a.
In the entire list

b.
In the right sublist

c.
In the left sublist

d.
At the beginning of the list

Question 9

Complete
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Flag question

Question text

During a linear search, what is the maximum number of comparisons needed to find an element in a list of size n?

Question 9 Answer

a.
log n

b.
n

c.
n-1

d.
n/2

Question 10

Complete
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Flag question

Question text

Finding the location of a given item in a collection of items is called

Question 10 Answer

a.

Searching

b.

Discovering

c.

Mining

d.

Finding

Question 11

Complete
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Flag question

Question text

The average case occurs in the linear search algorithm

Question 11 Answer

a.

When the item is somewhere in the middle of the array

b.

Item is the last element in the array or item is not there at all

c.

When the item is the last element in the array

d.

When the item is not the array at all

Question 12

Complete
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Flag question

Question text

In linear search, how is the element searched?

Question 12 Answer

a.
By dividing the list into halves

b.
By using a hash function

c.
By comparing each element in the list sequentially

d.
By sorting the list first

Question 13

Complete
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Flag question

Question text

What happens in a binary search if the list has an even number of elements?

Question 13 Answer

a.
The lower middle element is chosen as the middle element

b.
The middle element is chosen randomly

c.
The search stops

d.
The higher middle element is chosen as the middle element

Question 14

Complete
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Flag question

Question text

In binary search, what happens if the middle element does not match the target element?

Question 14 Answer

a.
The search continues in the left or right sublist

b.
The list is sorted

c.
The search continues from the beginning

d.
The search stops

Question 15

Complete
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Flag question

Question text

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

Question 15 Answer

a.
When the list is large and sorted

b.
When the list is small and sorted

c.
When the list is small and unsorted

d.
When the list is large and unsorted

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