If we allow assignment to constants what will happen?

Answer (Please click here to Add Answer)

How Table ADT can be implemented using Linked List ?

Answer (Please click here to Add Answer)

VuAnswers.com

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Made by: Waqar Siddhu
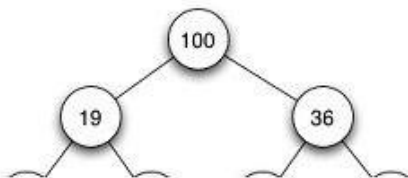
How we can search an element in Skip List?

Answer (Please click here to Add Answer)

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Convert this tree representation of a heap into the corresponding array representation

Answer (Please click here to Add Answer)

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When Hashing is NOT suitable?
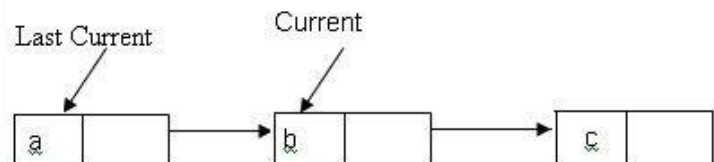
Answer (Please click here to Add Answer)

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Consider the following singly Linked List.

Last Current   Current

a → b → c

Answer (Please click here to Add Answer)

The following array represents a heap structure:

1	2	3	4	5	6	7	8	9	10	11	12
97	76	61	42	54	59	31	23	17	44	49	

Insert a new value **86** into the heap. Show the resultant heap, after insertion, in the form of array

Answer (Please click here to Add Answer)

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How many parameters are required for performing the following operations on Table? Also tell names of those parameters.

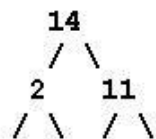0.   insert
1.   find
3.   remove

Answer (Please click here to Add Answer)

Here is a small binary tree:

```
        14
       /  \
      2    11
     / \   / \
```

Answer (Please click here to Add Answer)

Here is an array with exactly 15 elements:

         1   2   3   4   5   6   7   8   9   10   11   12   13   14   15.

Suppose that we are doing a binary search for an element. Indicate any elements that will be found by examining two or fewer numbers from the array.

Answer (Please click here to Add Answer)

Consider the min-heap represented in the following array:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
10	20	30	50	40	70	60	80	90	110	100	130	120	140	150

Show the updated min-heap in the array after deleting **10**.

Answer (Please click here to Add Answer)

Normal　Arial　12　B I U

Given input {23, 46, 12, 59, 78, 87, 2, 3} and a hash function **h(x) =x mod 11**, show the resulting "Chaining hash table".

Answer (Please click here to Add Answer)

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Question No : 41 of 52   **Marks: 2 (Budgeted Time 4 Min)**

How we can delete an element from Skip List

Answer (Please click here to Add Answer)

Normal   Arial   12   **B** *I* U

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What are the maximum number of comparisons we have to perform during insertion in BST ?

Answer (Please click here to Add Answer)

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Question No : 43 of 52   **Marks: 2 (Budgeted Time 4 Min)**

How Table ADT can be implemented using Linked List ?

Answer (Please click here to Add Answer)

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Question No : 44 of 52   **Marks: 2 (Budgeted Time 4 Min)**

What is maximum level difference between two leaf nodes in a Heap? Justify your answer as well.

Answer (Please click here to Add Answer)

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Question No : 45 of 52   **Marks: 3 (Budgeted Time 6 Min)**

What are the three basic things that are associated with data structures?

Answer (Please click here to Add Answer)

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Question No : 46 of 52   **Marks: 3 (Budgeted Time 6 Min)**

"For smaller lists, linear insertion sort performs well, but for larger lists, quick sort is suitable to apply." Justify why?

Answer (Please click here to Add Answer)

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The following array represents a heap structure:

1	2	3	4	5	6	7	8	9	10	11	12
97	76	61	42	54	59	31	23	17	44	49	

Insert a new value **86** into the heap. Show the resultant heap, after insertion, in the form of array

Answer (Please click here to Add Answer)

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Question No : 48 of 52   **Marks: 3 (Budgeted Time 6 Min)**

What is an Equivalence relation? Give any two examples.

Answer (Please click here to Add Answer)

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Question No : 49 of 52   **Marks: 5 (Budgeted Time 10 Min)**

Here is an array of ten integers:
    5 3 8 9 1 7 0 2 6 4
Sort the array by using **selection sort** algorithm and show content of array after each step.

Answer (Please click here to Add Answer)

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Question No : 50 of 52   **Marks: 5 (Budgeted Time 10 Min)**

Insert nodes 59 and 77 into the following AVL tree. You have to balance the AVL tree.
Steps are not required. Only show the resultant AVL tree.

55

Answer (Please click here to Add Answer)

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Question No : 51 of 52   **Marks: 5 (Budgeted Time 10 Min)**

Why the given Binary tree is NOT a Heap? How can we make it Heap with minimum changes ?

```
          91
          /\
        77 46
```

Answer (Please click here to Add Answer)

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Question No : 52 of 52   **Marks: 5 (Budgeted Time 10 Min)**

Write and explain the code for "Union" and "Find" operations of Parent array in disjoint sets.

Answer (Please click here to Add Answer)

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Question No : 41 of 52   **Marks: 2 (Budgeted Time 4 Min)**

What are the AVL insertion cases in which single rotation is successful ?

Answer (Please click here to Add Answer)

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Question No : 42 of 52   **Marks: 2 (Budgeted Time 4 Min)**

What are different applications of Hashing?

Answer (Please click here to Add Answer)

Normal   Arial   12   **B** *I* U

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Which factors should be considered while building a data structure?

Answer (Please click here to Add Answer)

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Question No : 44 of 52   **Marks: 2 (Budgeted Time 4 Min)**

What are the properties of equivalence class? Write any two.

Answer (Please click here to Add Answer)

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"For smaller lists, linear insertion sort performs well, but for larger lists, quick sort is suitable to apply." Justify why?

Answer (Please click here to Add Answer)

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Question No : 46 of 52 | **Marks: 3 (Budgeted Time 6 Min)**

Consider the following Max Heap add node 24 in it and show the resultant Heap,
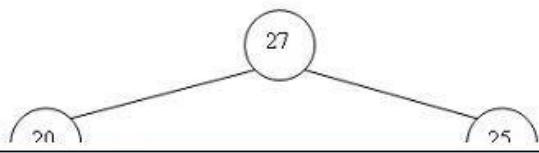
Answer (Please click here to Add Answer)

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Question No : 47 of 52   **Marks: 3 (Budgeted Time 6 Min)**

What will be the output of following linked list function ?

void LinkList::mystery() {

      Node * temp = headNode;
      int result = 0;

Answer (Please click here to Add Answer)

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Question No : 48 of 52   **Marks: 3 (Budgeted Time 6 Min)**

Why binary search can not be used for linked list?

Answer (Please click here to Add Answer)

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Question No : 49 of 52   **Marks: 5 (Budgeted Time 10 Min)**

Consider the following sequence of union commands on the set of elements

{1,2,3,4, 5}:

(1)   (2)   (3)   (4)   (5)

Answer (Please click here to Add Answer)

Normal   Arial   12   **B** *I* U

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Consider the min-heap represented in the following array:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
10	20	30	50	40	70	60	80	90	110	100	130	120	140	150

Show the updated min-heap in the array after deleting **10**.

Answer (Please click here to Add Answer)

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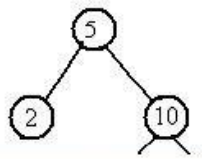
Question No : 51 of 52   **Marks: 5 (Budgeted Time 10 Min)**

Draw the resultant binary search tree (BST) after deleting the node 10 from the following BST.

Answer (Please click here to Add Answer)

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Question No : 52 of 52   **Marks: 5 (Budgeted Time 10 Min)**

Sort the list [2   9   7   5   8] through insertion sort algorithm, show each step in your solution.

Answer (Please click here to Add Answer)

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For a perfect binary tree of height 5, What will be the sum of heights of nodes?

Answer (Please click here to Add Answer)

What are postfix expressions?

Answer (Please click here to Add Answer)

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Give any two important characteristics of skip list.

Answer (Please click here to Add Answer)

In array representation of *Union* operation , what does "-1" represent on a particular index?

Answer (Please click here to Add Answer)

| Normal | Arial | 12 | **B** *I* <u>U</u> |

Which implementation of disjoint set is better with respect to space and why?

Answer (Please click here to Add Answer)

| Normal | Arial | 12 | **B** *I* <u>U</u> |

The following array represents a heap structure:

1	2	3	4	5	6	7	8	9	10	11	12
97	76	61	42	54	59	31	23	17	44	49	

Insert a new value **86** into the heap. Show the resultant heap, after insertion, in the form of array

Answer (Please click here to Add Answer)

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Here is an array of ten integers:

    3 5 9 8 1 7 0 2 6 4

Draw this array after the FIRST iteration of main loop in **selection sort** algorithm (sorting from smallest to largest).

Answer (Please click here to Add Answer)

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For time-based simulation model for bank system, below is the pseudo code of routine of the clock.

```
clock = 0;
while ( clock <= 24*60 ) { // one day
read new customer;
if customer.arrivaltime == clock
```

Answer (Please click here to Add Answer)

Here is an array with exactly 15 elements:

       1 2 3 4 5 6 7 8 9 10 11 12 13 14 15.

Suppose that we are doing a binary search for an element. Indicate any elements that will be found by examining two or fewer numbers from the array.

Answer (Please click here to Add Answer)

Here is an array of ten integers:

    5 3 8 9 1 7 0 2 6 4

Sort the array by using **selection sort** algorithm and show content of array after each step.

Answer (Please click here to Add Answer)

VuAnswers.com

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Write a `public` method for `Linked List` class called remove_first() that removes the first element of linked list.

Answer (Please click here to Add Answer)

Apply BuildHeap method on the elements of following array (reading from left to right) to convert them into a Min Heap. Show its contents in the form of array as shown below,

original array	6	5	3	9	1	2	10	8	-

Heapified array									

Answer (Please click here to Add Answer)

| Normal | Arial | 12 | **B** *I* U |

For a perfect binary tree of height 5, What will be the sum of heights of nodes?

Answer (Please click here to Add Answer)

What are postfix expressions?

Answer (Please click here to Add Answer)

Normal | Arial | 12 | B I U

Give any two important characteristics of skip list.

Answer (Please click here to Add Answer)

| Normal | Arial | 12 | **B** *I* U |

In array representation of *Union* operation , what does "-1" represent on a particular index?

Answer (Please click here to Add Answer)

| Normal | Arial | 12 | B I U |

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Answer (Please click here to Add Answer)

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1	2	3	4	5	6	7	8	9	10	11	12
97	76	61	42	54	59	31	23	17	44	49	

Insert a new value **86** into the heap. Show the resultant heap, after insertion, in the form of array

Answer (Please click here to Add Answer)

Normal   Arial   12   B I U

Here is an array of ten integers:

    3 5 9 8 1 7 0 2 6 4

Draw this array after the FIRST iteration of main loop in **selection sort** algorithm (sorting from smallest to largest).

Answer (Please click here to Add Answer)

For time-based simulation model for bank system, below is the pseudo code of routine of the clock.

```
clock = 0;
while ( clock <= 24*60 ) { // one day
read new customer;
if customer.arrivaltime == clock
```

Answer (Please click here to Add Answer)

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Made by: Waqar Siddhu

Here is an array with exactly 15 elements:

　　　　1　2　3　4　5　6　7　8　9　10　11　12　13　14　15.

Suppose that we are doing a binary search for an element. Indicate any elements that will be found by examining two or fewer numbers from the array.

Answer (Please click here to Add Answer)

Here is an array of ten integers:

    5 3 8 9 1 7 0 2 6 4

Sort the array by using **selection sort** algorithm and show content of array after each step.

Answer (Please click here to Add Answer)

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Write a `public` method for `Linked List` class called remove_first() that removes the first element of linked list.

Answer (Please click here to Add Answer)

Normal | Arial | 12 | **B** *I* U

Apply BuildHeap method on the elements of following array (reading from left to right) to convert them into a Min Heap. Show its contents in the form of array as shown below,

original array	6	5	3	9	1	2	10	8	-

Heapified array									

Answer (Please click here to Add Answer)

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