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| Pure Storage 2nd coding test interview through Hackerr(03/25/2020) |
| Coding problem |
| Coding 1) linked list  Q) delete all occurences  1 2 3 3 3 3 🡪 1 2  A)  void LinkedList::DeleteAllOccurences(int key) {  Node \*temp = head;  Node \*prev = head;  while(temp!=NULL) {  if(temp->item == key){  if(temp == head) {  head = temp->next;  delete temp;  temp = head;  } else {  prev->next = temp->next;  delete temp;  temp = prev->next;  }  } else {  prev = temp;  temp = temp->next;  }  }  return;  } |
| Coding 2) BST  Q)  Input: arr[] = {1, 5, 3, 4, 2}, k = 3  Output: 2  There are 2 pairs with difference 3, the pairs are {1, 4} and {5, 2}  Input: arr[] = {8, 12, 16, 4, 0, 20}, k = 4  Output: 5  There are 5 pairs with difference 4, the pairs are {0, 4}, {4, 8},  {8, 12}, {12, 16} and {16, 20}  A)  /\* Returns count of pairs with difference k in arr[] of size n. \*/  int countPairsWithDiffK(int arr[], int n, int k)  {  int count = 0;  sort(arr, arr+n); // Sort array elements    int l = 0;  int r = 0;  while(r < n)  {  if(arr[r] - arr[l] == k)  {  count++;  l++;  r++;  }  else if(arr[r] - arr[l] > k)  l++;  else // arr[r] - arr[l] < sum  r++;  }  return count;  } |
| Multiple choice |
| Q) two tasks run in order, initialize x=0, y=0  Task1 Task2  x = 1 y = 1  a = y b = x  A) a==0 🡪 |
| Q)  int f (int x)  {  if (x < 1) return 1;  else return (f(x-1) + g(x))  }  int g (int x)  {  if (x < 2) return 2;  else return (f(x-1) + g(x/2));  }  A) Exponential |
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| Q) If bob writes down a number between 1 to 1000 on a paper and marry have to identify that bumber and she knows that bob always tells the truth. so how many questions she will ask to determine the answer in the worst case.???  A) 10 |
| Q)  var x,y:integer;  x:=1; y:=0;  while y < x do  begin  x:=2∗x;  y:=y+1;  end;  A) x = 2^y |
| Consider a singly linked list of the form where F is a pointer to the first element in the linked list and L is the pointer to the last element in the list. The time of which of the following operations depends on the length of the list? **(A)** Delete the last element of the list **(B)** Delete the first element of the list **(C)** Add an element after the last element of the list **(D)** Interchange the first two elements of the list   **Answer:** **(A)** |
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