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## DS Lab 09

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**Q1:**

*Code:*

*Output:*

```
solution/" && g++ 1_task.cpp -o 1_task && "/
Displaying tree, traversing inorder
4 5 15 25 45
Displaying tree, traversing preorder
45 4 5 15 25
Displaying tree, traversing postorder
25 15 5 4 45
Value not found
Entered value is not a part of tree
Value found and node returned
Value deleted successfully
Displaying tree, traversing preorder
4 5 15 25
Displaying tree, traversing postorder
25 15 5 4
```

**Q2:**

*Code:*

*Output:*

```
solution/" && g++ 2_task.cpp -o 2_task && "/
Displaying tree, traversing inorder
4 5 15 25 45
Enter value to be found: 25
Value exists in the tree
Displaying tree, traversing inorder
4 5 15 25 45
```

**Q3:**

*Code:*

*Output:*

```
mufeez@mine:~/media/mufeez/work1/FAST_KHI_Semes
solution/" && g++ 3_task.cpp -o 3_task && "/me
Displaying tree, traversing inorder

No, it is not a bst
mufeez@mine:~/media/mufeez/work1/FAST_KHI_Semes
```

**Q4:**

*Code:*

*Output:*

```

mufeez@mine:~/media/mufeez/work1/FAST_KHI_Semes
solution/" && g++ 4_task.cpp -o 4_task && "/me
13 0
113 1
133 5
423 0
453 2

id not found
Entered id is not a part of tree
133 5
mufeez@mine:~/media/mufeez/work1/FAST_KHI_Semes

```

**Q5:**

*Code:*

*Output:*

```

mufeez@mine:~/media/mufeez/work1/FAST_KHI_Semes
solution/" && g++ 5_task.cpp -o 5_task && "
Displaying tree, traversing inorder
2 4 5 15 25 45
Median: 10
mufeez@mine:~/media/mufeez/work1/FAST_KHI_Semes

```

**Q6:**

*Code:*

*Output:*

```

mufeez@mine:~/media/mufeez/work1/FAST_KHI_Semes
solution/" && g++ 6_task.cpp -o 6_task && "
5 45
Count: 4
mufeez@mine:~/media/mufeez/work1/FAST_KHI_Semes

```