

LAB Assignment

Name :

Muhammad Abdullah

Registration:

Sp22 - BCS - 036

Subject:

DSA

Submitted To:

yasmeen Jana.

CUI vehari Campus

i) Initialization:-

Node root = Null; initialize an empty AVL tree.

ii) Insertion

Insert 10:

The root become 10

Insert 20

The tree become:

```
graph TD
    10 --> 20
```

Insert 30

The tree become:

```
graph TD
    10 --> 20
    10 --> 30
```

Insert 40

The tree become:

```
graph TD
    10 --> 20
    10 --> 30
    30 --> 40
```

Insert 5

The tree become:

```
graph TD
    10 --> 20
    10 --> 30
    30 --> 40
    10 --> 5
```

CS CamScanner

Inorder
in

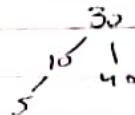
Inorder Traversal:

In order traversal of AVL tree

5, 10, 20, 30, 40

Deletion

Delete 20: deleteNode(root, 20)



Inorder traversal after deletion

In order traversal after deletion: 5, 10

30, 40

Search

Search for 50: search(root, 50)

50 not found in AVL tree

Output

The program prints the inorder traversal before and after deletion and indicate whether the search key is not found.