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Advanced Data Structure

Batch - 5

Program - 4

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Insertion :-

```
int insert (node * head, int val)
{
```

```
    if (head == NULL)
```

```
        return newnode (val)
```

```
    if (head -> val > val)
```

```
        head -> left = head insert (head -> left, val)
```

```
    else if (head -> val < val)
```

```
        head -> right = insert (head -> right, val)
```

```
    else
```

```
        return node
```

```
    int bf = height (head -> left) - height (head -> right)
```

```
    if (balance > 1)
    {
```

```
        if (head -> left -> key > val)
```

```
            left left rotate
```

```
        else
```

```
            left right rotate
```

```
    }
```

```
    else if (balance < -1)
    {
```

```
        if (head -> right -> key > val)
```

```
            right left rotate
```

```
        else
```

```
            right right rotate.
```

```
    }
```

```
    else.
```

```
        return node.
```

```
}
```

Rutazet