



# DATA STRUCTURES AND ITS APPLICATIONS

## UE19CS202

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## Programs on Binary Trees

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# DATA STRUCTURES AND ITS APPLICATIONS

## Programs on Binary Tree

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//Returns the smallest element in Binary Search Tree

```
int minimum(struct tnode *t)
{
    while(t->left!=NULL)
        t=t->left;
    return(t->data);
}
```



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## Programs on Binary Tree

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//Returns the largest element in Binary Search Tree

```
int maximum(struct tnode *t)
{
    while(t->right!=NULL)
        t=t->right;
    return(t->data);
}
```



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## Programs on Binary Tree

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//Computes the height of a Binary Tree

```
int height(struct tnode *t)
{
    if(t==NULL)
        return -1;
    if((t->left==NULL)&&(t->right==NULL))
        return 0;
    return (1+max(height(t->left),height(t->right)));
}
```

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## Programs on Binary Tree

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//Count the number of leaf nodes in a Binary Tree

```
int leafcount(struct tnode *t)
{
    if(t==NULL)
        return 0;
    if((t->left==NULL)&&(t->right==NULL))
        return 1;
    int l=leafcount(t->left);
    int r=leafcount(t->right);
    return(l+r);
}
```



**THANK YOU**

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