

# LevelOrder Traversal

```
#include <stdio.h>
#include <stdlib.h>
#include "Queue.h"
#include "Stack.h"

struct Node *root=NULL;

void Treecreate()
{
    struct Node *p,*t;
    int x;
    struct Queue q;
    create(&q,100);

    printf("Enter root value ");
    scanf("%d",&x);
    root=(struct Node *)malloc(sizeof(struct Node));
    root->data=x;
    root->lchild=root->rchild=NULL;
    enqueue(&q,root);

    while(!isEmpty(q))
    {
        p=dequeue(&q);
        printf("Enter left child of %d ",p->data);
        scanf("%d",&x);
        if(x!=-1)
        {
            t=(struct Node *)malloc(sizeof(struct Node));
            t->data=x;
            t->lchild=t->rchild=NULL;
            p->lchild=t;
            enqueue(&q,t);
        }
        printf("Enter right child of %d ",p->data);
        scanf("%d",&x);
        if(x!=-1)
        {
            t=(struct Node *)malloc(sizeof(struct Node));
            t->data=x;
            t->lchild=t->rchild=NULL;
            p->rchild=t;
            enqueue(&q,t);
        }
    }
}
```

```
}
```

```
void LevelOrder(struct Node *root)
```

```
{
```

```
    struct Queue q;
```

```
    create(&q,100);
```

```
    printf("%d ",root->data);
```

```
    enqueue(&q,root);
```

```
    while(!isEmpty(q))
```

```
    {
```

```
        root=dequeue(&q);
```

```
        if(root->lchild)
```

```
        {
```

```
            printf("%d ",root->lchild->data);
```

```
            enqueue(&q,root->lchild);
```

```
        }
```

```
        if(root->rchild)
```

```
        {
```

```
            printf("%d ",root->rchild->data);
```

```
            enqueue(&q,root->rchild);
```

```
        }
```

```
    }
```

```
}
```

```
int main()
```

```
{
```

```
    Treecreate();
```

```
    LevelOrder(root);
```

```
    return 0;
```

```
}
```