

```
/*queue using linked list*/
```

```
#include<stdio.h>
```

```
#include<stdlib.h>
```

```
struct queue
```

```
{
```

```
    int data;
```

```
    struct queue*link;
```

```
};
```

```
struct queue*front;
```

```
struct queue*rear;
```

```
void insert(int item);
```

```
void delete_();
```

```
void display();
```

```
int main()
```

```
{
```

```
    int ch,item;
```

```
    while(1)
```

```
    {
```

```
printf("***main menu**\n");
```

```
printf("1 - insert\n");
```

```
printf("2 -delete\n");
```

```
printf("3 -display\n");
```

```
printf("4 -exit\n");
```

```
printf("enter your choice: \n");
```

```
scanf("%d",&ch);
```

```
switch(ch)
```

```
{
```

```
case 1:
```

```
printf("enter the no to be inserted in queue: \n");
```

```
scanf("%d",&item);
```

```
insert(item);
```

```

break;

case 2:
delete_();
break;

case 3:
display();
break;

case 4:
exit(0);

default:
printf("invalid choice\n");
}
}
}

void insert(int item)
{
    struct queue*new_node;
    if(new_node==NULL)
    {
        printf("\nOVERFLOW\n");
        return;
    }
    else
    {
        new_node=(struct queue*) malloc(sizeof(struct queue*));
        new_node->data=item;
        if(front==NULL)
        {
            front=new_node;
            rear=new_node;
            front->link=NULL;

```

```

rear->link=NULL;
}
else
{
rear->link=new_node;
rear=new_node;
rear->link=NULL;
}
printf("item inserted\n");
}
}

void delete_()
{
struct queue*ptr;
if(front==NULL)
{
printf("queue is empty\n");
return;
}
else
{
ptr=front;
front= front->link;
printf("deleted value: %d\n",ptr->data);
free(ptr);
}
/*
other code
{
else
{

```

```
int x;  
x=front->data;  
front=front->link;  
printf("the deleted value is %d",x);  
}  
}
```

```
*/  
}  
void display()  
{  
    struct queue*ptr;  
    ptr=front;  
    if(front==NULL)  
    {  
        printf("quque is empty\n");  
    }  
    else  
    { printf("queue is below\n");  
        while(ptr!= NULL)  
        {  
            printf("%d\n",ptr->data);  
            ptr=ptr->link;  
        }  
    }  
}
```

```
C:\Users\HP\OneDrive\Desktop\collage work 3rd sem(dada)\queue using l.exe
**main menu**
1 - insert
2 -delete
3 -display
4 -exit
enter your choice:
1
enter the no to be inserted in queue:
10
item inserted
**main menu**
1 - insert
2 -delete
3 -display
4 -exit
enter your choice:
1
enter the no to be inserted in queue:
20
item inserted
**main menu**
1 - insert
2 -delete
3 -display
4 -exit
enter your choice:
1
enter the no to be inserted in queue:
30
item inserted
**main menu**
1 - insert
2 -delete
3 -display
4 -exit
enter your choice:
3
queue is below
10
20
30
40
**main menu**
1 - insert
2 -delete
3 -display
4 -exit
enter your choice:
2
deleted value: 10
**main menu**
1 - insert
2 -delete
3 -display
4 -exit
enter your choice:
3
queue is below
20
30
40
**main menu**
1 - insert
2 -delete
3 -display
4 -exit
enter your choice:
4
Process exited after 28.27 seconds with return value 0
Press any key to continue . . .
```