

```

#include <stdio.h>
#include <stdlib.h>
struct node
{
    int data;
    struct node *next;
};
void insert();
void display();
void del();

struct node *rear=NULL, *front =NULL;

int main(int argc, char **argv)
{
    int choice;
    char ch = 'Y';
    do
    {
        printf("\nQueue implementation using linked list\n");
        printf("\n1. Create \n2. Display \n3. Delete \n4. Exit \n");
        printf("\nEnter your choice : ");
        scanf("%d", &choice);
        switch(choice)
        {
            case 1: insert(); break;
            case 2: display(); break;
            case 3: del(); break;
            case 4:
                ch = 'n';
                break;
        }
    } while (ch=='Y' || ch=='y');
}

```

```
}  
} while (ch=='y' || ch=='Y');  
}
```

```
void insert()
```

```
{  
    struct node *newnode;  
    newnode=(struct node *) malloc(sizeof(struct node));  
    printf("Enter the element:\n");  
    scanf("%d",&newnode->data);  
    newnode->next=NULL;
```

```
    if (rear==NULL)  
    {  
        rear=newnode;  
        front=newnode;
```

```
    }  
    else  
    {  
        rear->next=newnode;  
        rear=newnode;
```

```
    }  
}
```

```
void del()
```

```
{  
    if (front==NULL)  
    {  
        printf("Queue is empty\n"); return;
```

```
    }  
    else  
    {  
        printf("Deleted ele is %d",front->data);  
        if (front==rear)
```



```
{
    if(front==NULL)
    {
        printf("Queue is empty\n");return;
    }

    else
    {
        printf("Deleted ele is %d",front->data);
        if(front==rear)
        {
            printf("Queue is empty\n");
            front=NULL; rear=NULL;
        }
        else
            front=front->next;
    }
}
```

void display()

```
{
    struct node *temp;
    if(front ==NULL)
    {
        printf("Queue is empty");
        return;
    }
    temp=front;
    while (temp !=NULL)
    {
        printf("%d ",temp->data);
        temp=temp->next;
    }
}
```