```
#include<stdio.h>
#include<stdlib.h>
int size;
struct queue{
    int front;
    int rear;
    int *queue;
}q;
void insert(int x)
{
    if(q.front==-1 && q.rear==-1)
        q.front=q.rear=0;
    else if((q.rear+1)%size==q.front)
        printf("queue is full");
    else
        q.rear=(q.rear+1)%size;
        q.queue[q.rear]=x;

}
void Delete()
{
    if(q.rear==-1 && q.front==-1)
    printf("queue is empty\n");
    printf("deleted element:%d",q.queue[q.front]);
    if(q.rear==q.front)
        q.rear=q.front=-1;
    else
        q.front=(q.front+1)%size;
}
void display()
{
    int i=q.front;
    if(q.rear==-1 && q.front==-1)
         printf("queue is empty");
    else
    {
        while(i!=q.rear)
        {
            printf("%d\t",q.queue[i]);
            i=(i+1)%size;
        }
        printf("%d",q.queue[q.rear]);
    }
}
int main()
{
    int choice,x;
    q.rear=q.front=-1;
    printf("enter thye array size:");
    scanf("%d",&size);
    q.queue=(int*)malloc(size*sizeof(int));
    printf("1.insert\n2.delete\n3.display\n4.exit");
    for(;;)
    {
    printf("\nenter your choice:");
    scanf("%d",&choice);
    switch(choice)
    {
        case 1:printf("enter the element to be inserted:");
                scanf("%d",&x);
                insert(x);
                break;
        case 2:Delete();
                break;
        case 3:display();
                break;
        case 4:exit(0);
        default:printf("invalid input\n");
    }}
}
```