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#include<iostream>
#include<stdio.h>
#include<conio.h>
#define QSIZE 5
using namespace std;

int front=0,rear=-1;char q[QSIZE];
void insert(char x)
{
    rear=(rear+1)%QSIZE;
    q[rear]=x;
}
char del()
{
    char t=0;
    if(rear <= -1)
        cout<<"\nQueue is empty.\n\n";
    else
    {
        t=q[front];
        if(front!=rear)
            front=(front+1)%QSIZE;
        else
        {
            front=0;
            rear=-1;
        }
    }
    return t;
}
void display()

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{
    int i;
    if(rear<=-1)
        cout<<"\nQueue is empty.\n\n";
    else
    {
        cout<<"\nThe queue is\n";
        for(i=front;i!=rear;i=(i+1)%QSIZE)
            cout<<q[i]<<" \t";
        cout<<q[i]<<" \n";
    }
}
void destroy()
{
    int i=0;
    if(rear<=-1)
        cout<<"\nQueue is empty.\n\n";
    else
        for(i=front;i<=rear;i=(front+1)%QSIZE)
            del();
    if(i!=0)
        cout<<"\nQueue is destroy.\n\n";
}
void main()
{
    int ch;
    char in, d;
    system("CLS");
    do
    {
        cout<<"\nMain Menu\n\n";

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    cout<<"1.Insert\n";
    cout<<"2.Delete\n";
    cout<<"3.Display\n";
    cout<<"4.Destroy\n";
    cout<<"5.Exit\n\n";
    cout<<"Enter your choice:";cin>>ch;
switch (ch)
{
case 1:system("CLS");
        if (front==(rear+1)%QSIZE &&
rear>=QSIZE-1)
            cout<<"\nQueue is full\n\n";
        else
        {
            cout<<"\nEnter the element to be
inserted:";cin>>in;
            insert(in);
            system("CLS");
        }
        break;
case 2: system("CLS");
        d=del();
        if (d!=0)
            cout<<"\nElement
deleted="<<d<<"\n\n";
        break;
case 3:  system("CLS");
        display();
        break;
case 4:  system("CLS");
        destroy();

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        break;
    case 5:    break;
    default:system("CLS");
        cout<<"\nEnter an appropriate
choice.\n\n";
    }

}
while (ch!=5);
_getch();
}
```