Queue Program

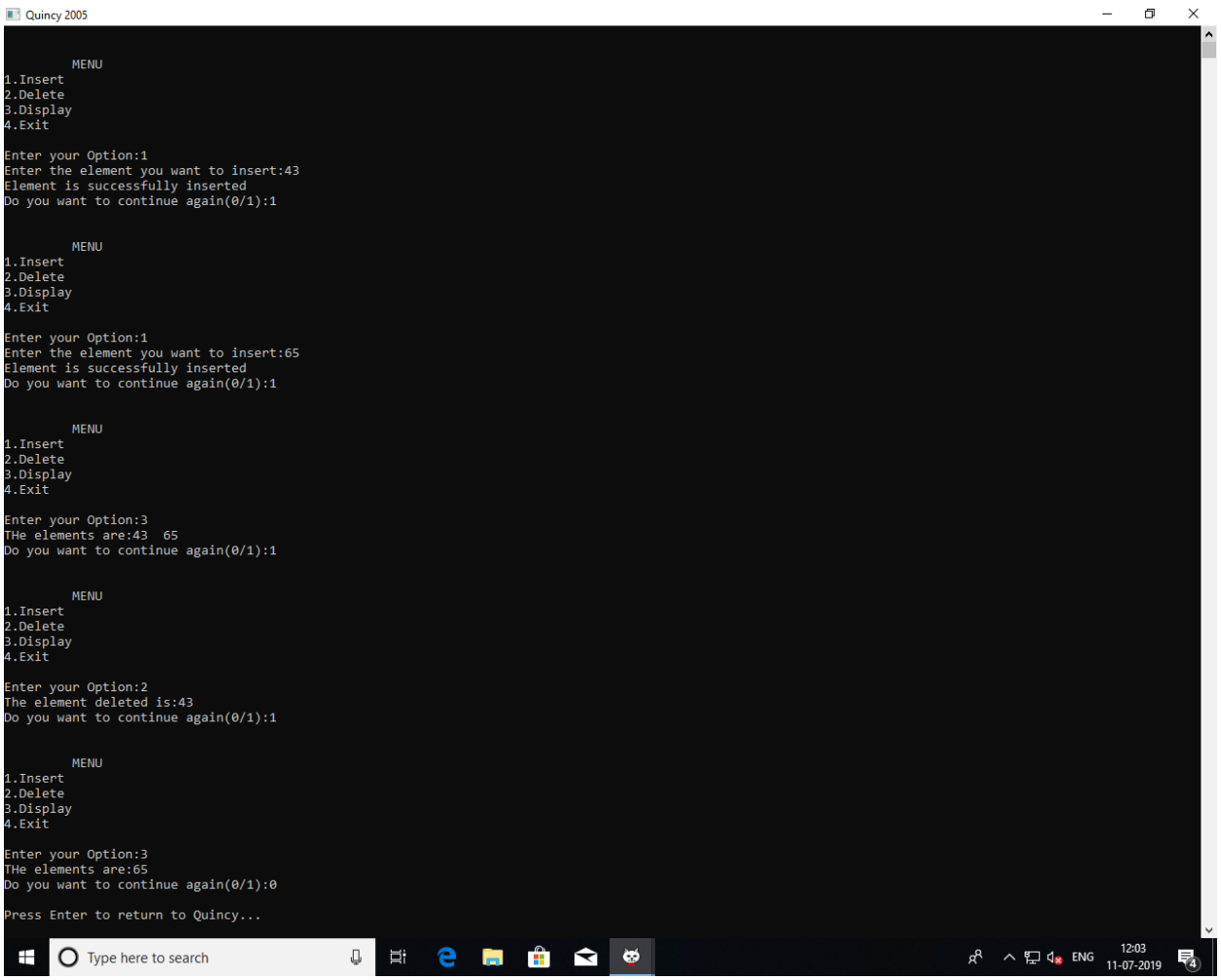
```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#define MAX 3
int front = -1;
int rear = -1;
int a[MAX];
void insert();
void del();
void display();
int main()
{
  int opt,again;
  do
  {
    printf("\n\n\t MENU\n1.Insert\n2.Delete\n3.Display\n4.Exit");
            printf("\n\nEnter your Option:");
            scanf("%d",&opt);
            switch(opt)
            {
            case 1:
               insert();
```

```
                    break;
    case 2:
                del();
                    break;
            case 3:
                display();
                    break;
            case 4:
                exit(0);
                    break;
    }
            printf("\nDo you want to continue again(0/1):");
            scanf("%d",&again);
            }while(again==1);
}

void insert()
{
 int x;
 printf("Enter the element you want to insert:");
 scanf("%d",&x);
 if(rear < MAX - 1)
 {
    a[++rear]= x;
            if(front == -1)
```

```
            front = 0;
        printf("Element is successfully inserted");
 }
 else
  printf("\n\t\tQueue is full");
}

void del()
{
   int i;
   if(rear == -1)
     printf("\n\n Queue is Empty ");
   else
   {
     printf("The element deleted is:%d",a[0]);
     for(i=0;i<=rear;i++)
            {
               a[i]=a[i+1];
            }

        rear--;
        if(rear == -1)
          front = -1;
        }
}
```

```
void display()
{
  int i;
  if(front==-1)
     printf("\n\nQueue is Empty ");
  else
  {
     printf("THe elements are:");
     for(i=front;i<=rear;i++)
                printf("%d  ",a[i]);

  }

}
```

Output:


Quincy 2005
MENU
1.Insert
2.Delete
3.Display
4.Exit
Enter your Option:1
Enter the element you want to insert:43
Element is successfully inserted
Do you want to continue again(0/1):1
MENU
1.Insert
2.Delete
3.Display
4.Exit
Enter your Option:1
Enter the element you want to insert:65
Element is successfully inserted
Do you want to continue again(0/1):1
MENU
1.Insert
2.Delete
3.Display
4.Exit
Enter your Option:3
THe elements are:43 65
Do you want to continue again(0/1):1
MENU
1.Insert
2.Delete
3.Display
4.Exit
Enter your Option:2
The element deleted is:43
Do you want to continue again(0/1):1
MENU
1.Insert
2.Delete
3.Display
4.Exit
Enter your Option:3
THe elements are:65
Do you want to continue again(0/1):0
Press Enter to return to Quincy...
Type here to search
ENG
12:03
11-07-2019