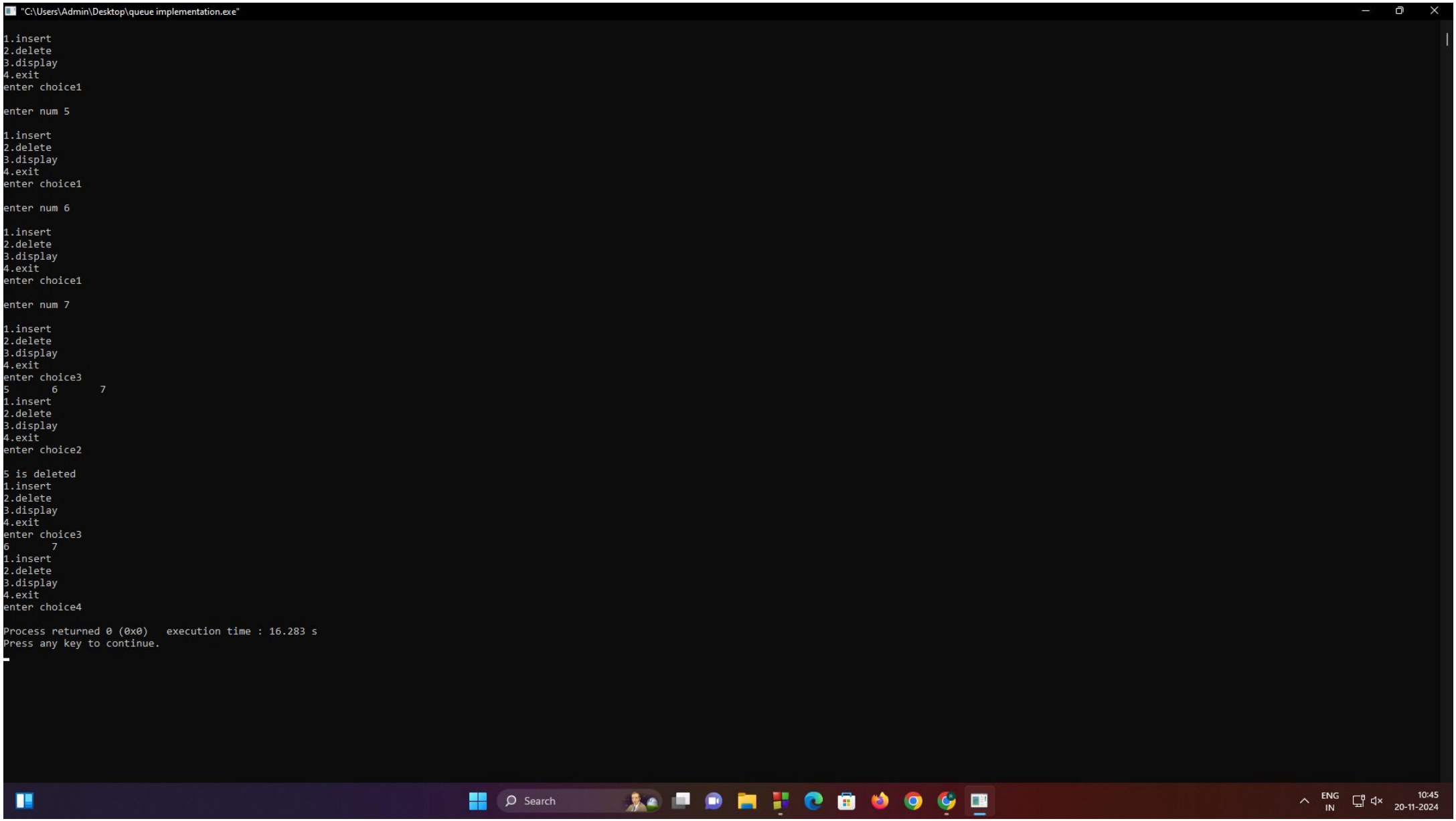
```c
#include <stdio.h>
#include<stdlib.h>
struct node
{
  int data;
  struct node * next;
};
struct node * front=NULL;
struct node * rear=NULL;
void insert(struct node * ptr,int num)
{
    ptr=(struct node *)malloc(sizeof(struct node *));
    if(ptr==NULL)
    {
        printf("overflow");
        return;
    }
    else
    {ptr->data=num;
        if(front==NULL)
        {
            rear=ptr;
            front=ptr;
            rear->next=NULL;
            front->next=NULL;

        }
        else
        {
            rear->next=ptr;
            rear=ptr;
            rear->next=NULL;
        }
    }
}

int del()
{
    if(front==NULL)
    {rear=NULL;
        printf("underflow");
        return -1;
    }
    else
    {
        struct node * ptr=front;
        int del=ptr->data;
```

```
37  int del()
38  {
39      if(front==NULL)
40      {rear=NULL;
41          printf("underflow");
42          return -1;
43      }
44      else
45      {
46          struct node * ptr=front;
47          int del=ptr->data;
48          front=front->next;
49          free(ptr);
50    return del;z
51      }
52  }
53
54
55
56
57  void display()
58   {
59      if(front==NULL){
60
61          printf("empty");
62          return;
63      }
64      else
65      { struct node * ptr;
66          ptr=front;
67          while(ptr!=NULL)
68          {
69              printf("%d\t",ptr->data);
70              ptr=ptr->next;
71          }
72      }
73   }
74
75
76
77
78  void main()
79   {
80      int choice,num;
81      while(1)
82      {   struct node * start=NULL;
83      printf("\n1.insert\n2.delete\n3.display\n4.exit");
```

```
78  void main()
79  {
80      int choice,num;
81      while(1)
82      {   struct node * start=NULL;
83      printf("\n1.insert\n2.delete\n3.display\n4.exit");
84          printf("\nenter choice");
85          scanf("%d",&choice);
86         switch(choice)
87         {
88         case 1:printf("\nenter num ");
89         scanf("%d",&num);
90          insert(start,num);
91
92             break;
93         case 2:
94             printf("\n%d is deleted",del());
95             break;
96         case 3:
97             display();
98             break;
99
100        case 4:
101            exit(0);
102        }
103
104
105    }
106 }
107
108
```


"C:\Users\Admin\Desktop\queue implementation.exe"
1.insert
2.delete
3.display
4.exit
enter choice1
enter num 5
1.insert
2.delete
3.display
4.exit
enter choice1
enter num 6
1.insert
2.delete
3.display
4.exit
enter choice1
enter num 7
1.insert
2.delete
3.display
4.exit
enter choice3
5 6 7
1.insert
2.delete
3.display
4.exit
enter choice2
5 is deleted
1.insert
2.delete
3.display
4.exit
enter choice3
6 7
1.insert
2.delete
3.display
4.exit
enter choice4
Process returned 0 (0x0) execution time : 16.283 s
Press any key to continue.
Search
ENG
IN
10:45
20-11-2024