**#include <stdio.h>**

**#include <stdlib.h>**

**#define MAX 20**

**struct Node**

**{**

**int data;**

**struct Node \*next;**

**};**

**struct Node \*head=NULL;**

**int rear=-1;**

**void append()**

**{**

**if(rear==MAX-1)**

**{**

**printf("Queue overflow");**

**}**

**else**

**{**

**rear=rear+1;**

**struct Node \*new\_node=malloc(sizeof(struct Node));**

**int data;**

**struct Node \*last=head;**

**printf("Enter the data to be entered ");**

**scanf("%d",&data);**

**(\*new\_node).data=data;**

**(\*new\_node).next=NULL;**

**if(head==NULL)**

**head=new\_node;**

**else**

**{**

**while((\*last).next!=NULL)**

**{**

**last=(\*last).next;**

**}**

**(\*last).next=new\_node;**

**}**

**}**

**}**

**void Pop()**

**{**

**if(head==NULL)**

**printf("The queue is empty. You cannot delete from an empty queue");**

**else**

**{**

**struct Node \*ptr=head;**

**head=(\*ptr).next;**

**free(ptr);**

**}**

**}**

**void display()**

**{**

**if(head==NULL)**

**printf("The queue is empty. You cannot display the elements from an empty queue");**

**else**

**{**

**struct Node \*node=head;**

**while(node!=NULL)**

**{**

**printf("%d ",(\*node).data);**

**node=(\*node).next;**

**}**

**}**

**}**

**void main()**

**{**

**while(1)**

**{**

**printf("Enter 1 to append elements to the queue, 2 to delete elements from the queue, 3 to display the elements of the queue and 4 to exit. ");**

**int ch;**

**scanf("%d", &ch);**

**if(ch==1)**

**{**

**append();**

**}**

**else if(ch==2)**

**{**

**Pop();**

**}**

**else if(ch==3)**

**{**

**display();**

**}**

**else if(ch==4)**

**{**

**break;**

**}**

**else**

**{**

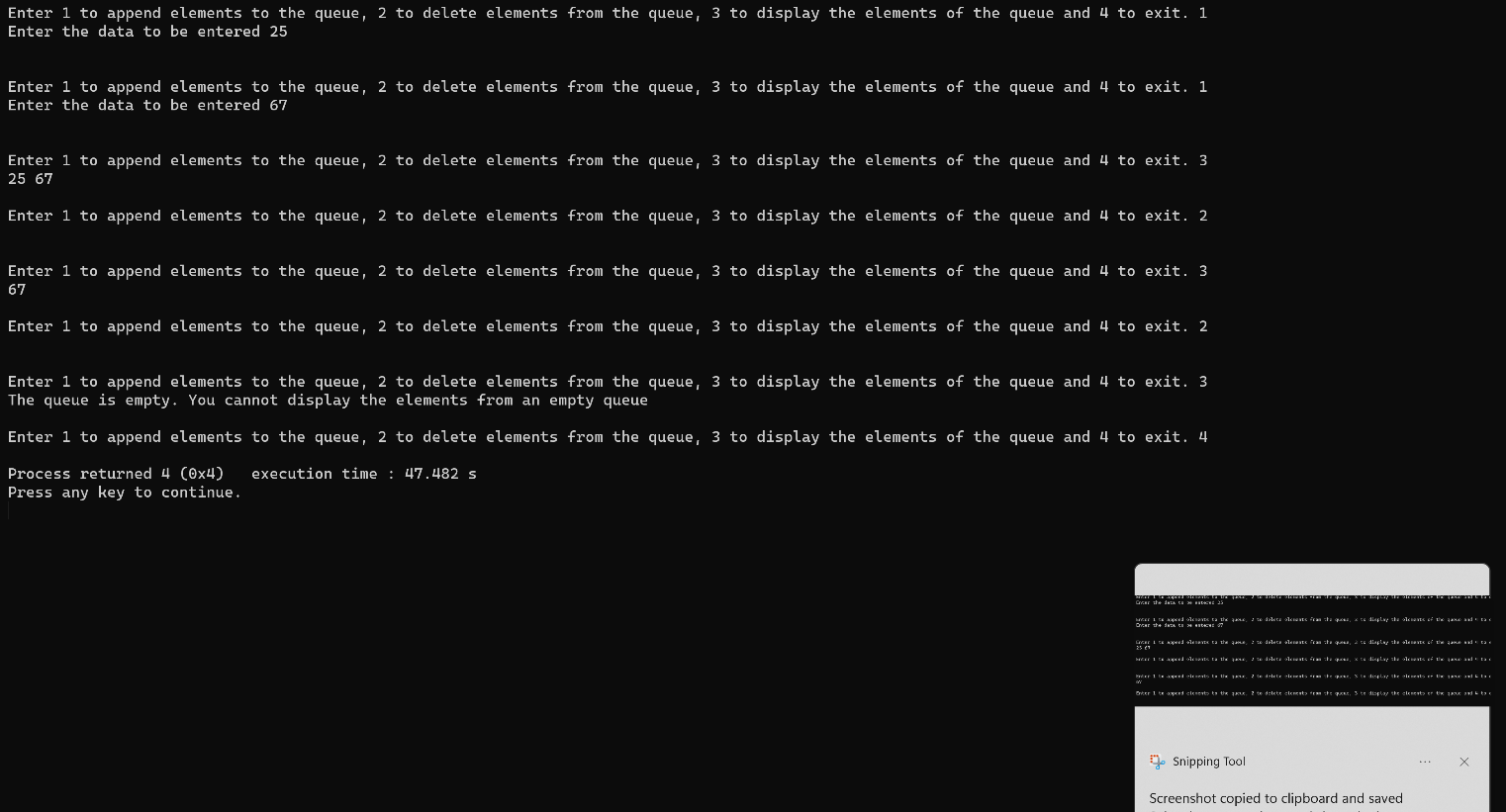
**printf("Invalid character");**

**}**

**printf("\n\n");**

**}**

**}**

****