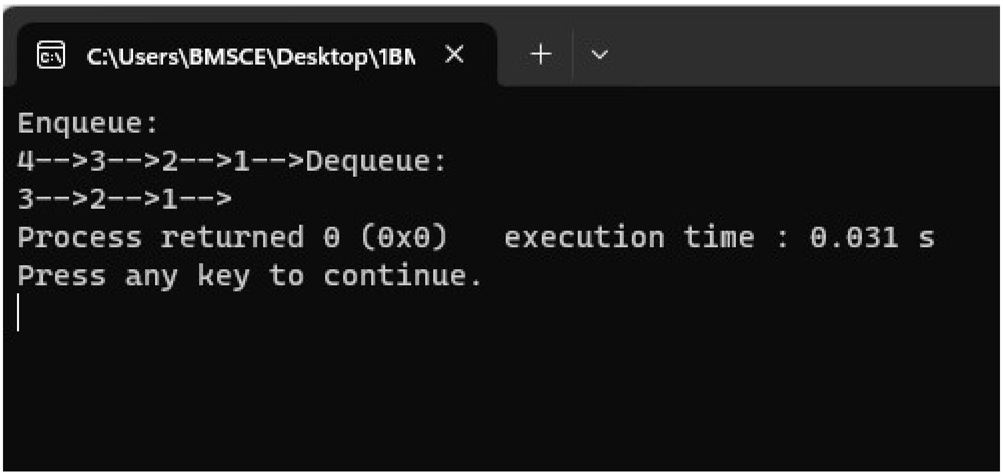
6b) WAP to Implement Single Link List to simulate Stack & Queue Operations.

```
#include <stdio.h>

#include <stdlib.h>



struct node

{

   int data;

   struct node *next;

};



void push(struct node** head,int value)

{

   struct node* new_node=(struct node*)malloc(sizeof(struct node));

   struct node* last=*head;

   new_node->data=value;

   new_node->next=NULL;

   if(*head==NULL)

   {

      *head=new_node;

      return;

   }

   while(last->next!=NULL)

   {

      last=last->next;

   }

   last->next=new_node;
```

```
    return;
}
void pop(struct node** head)
{
    struct node *ptr=*head;
    if(head==NULL)
    {
        printf("List is empty");
        return;
    }
    else
    {
        *head=ptr->next;
        free(ptr);
    }
}
void display(struct node* node)
{
    struct node *temp=node;
    while(temp!=NULL)
    {
        printf("%d-->",temp->data);
        temp=temp->next;
    }
}
void main()
```

```
{

   struct node* head=NULL;

   push(&head,4);

   push(&head,3);

   push(&head,2);

   push(&head,1);


   printf("Enqueue :\n");

   display(head);


   printf("Dequeue :\n");

   pop(&head);

   display(head);


}
```

Output:



```
Enqueue:
4-->3-->2-->1-->Dequeue:
3-->2-->1-->
Process returned 0 (0x0)   execution time : 0.031 s
Press any key to continue.
```