**PROGRAM 13:**

#include <stdio.h>

#include<conio.h>

#include<stdlib.h>

#define MAX 50

void enqueue();

void dequeue();

void display();

int queue\_array[MAX];

int rear = - 1;

int front = - 1;

int main()

{

int choice;

while (1)

{

printf("\n1.Insert \n");

printf("2.Delete \n");

printf("3.Display \n");

printf("4.Quit \n");

printf("Enter your choice : ");

scanf("%d", &choice);

switch(choice)

{

case 1:

enqueue();

break;

case 2:

dequeue();

break;

case 3:

display();

break;

case 4:

exit(1);

default:

printf("Wrong choice \n");

}

}

}

void enqueue()

{

int item;

if(rear == MAX - 1)

printf("Queue Overflow \n");

else

{

if(front== - 1)

front = 0;

printf("Insert the element in queue : ");

scanf("%d", &item);

rear = rear + 1;

queue\_array[rear] = item;

}

}

void dequeue()

{

if(front == - 1 || front > rear)

{

printf("Queue Underflow \n");

return;

}

else

{

printf("Element deleted from queue is : %d\n", queue\_array[front]);

front = front + 1;

}

}

void display()

{

int i;

if(front == - 1)

printf("Queue is empty \n");

else

{

printf("Queue is : \n");

for(i = front; i <= rear; i++)

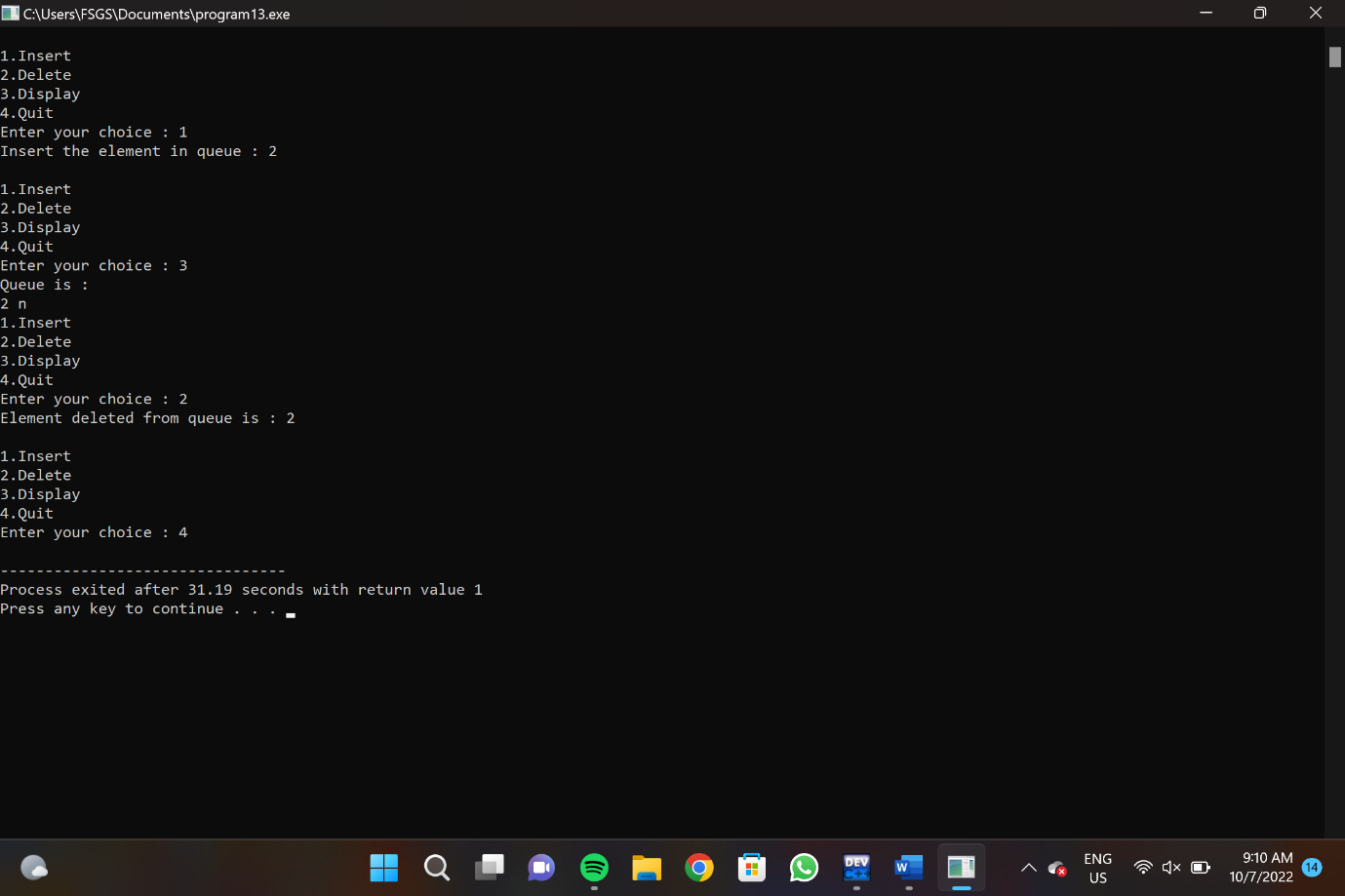
printf("%d ", queue\_array[i]);

printf("n");

}

}

**OUTPUT:**

****