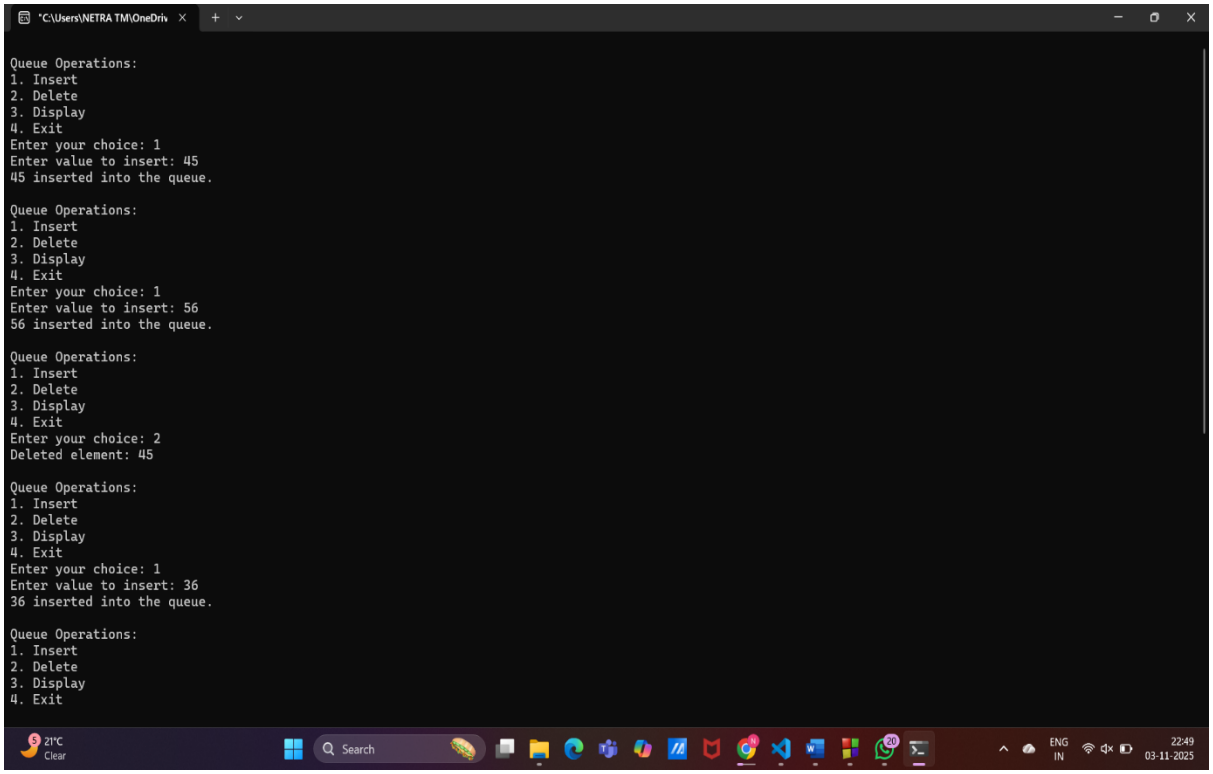
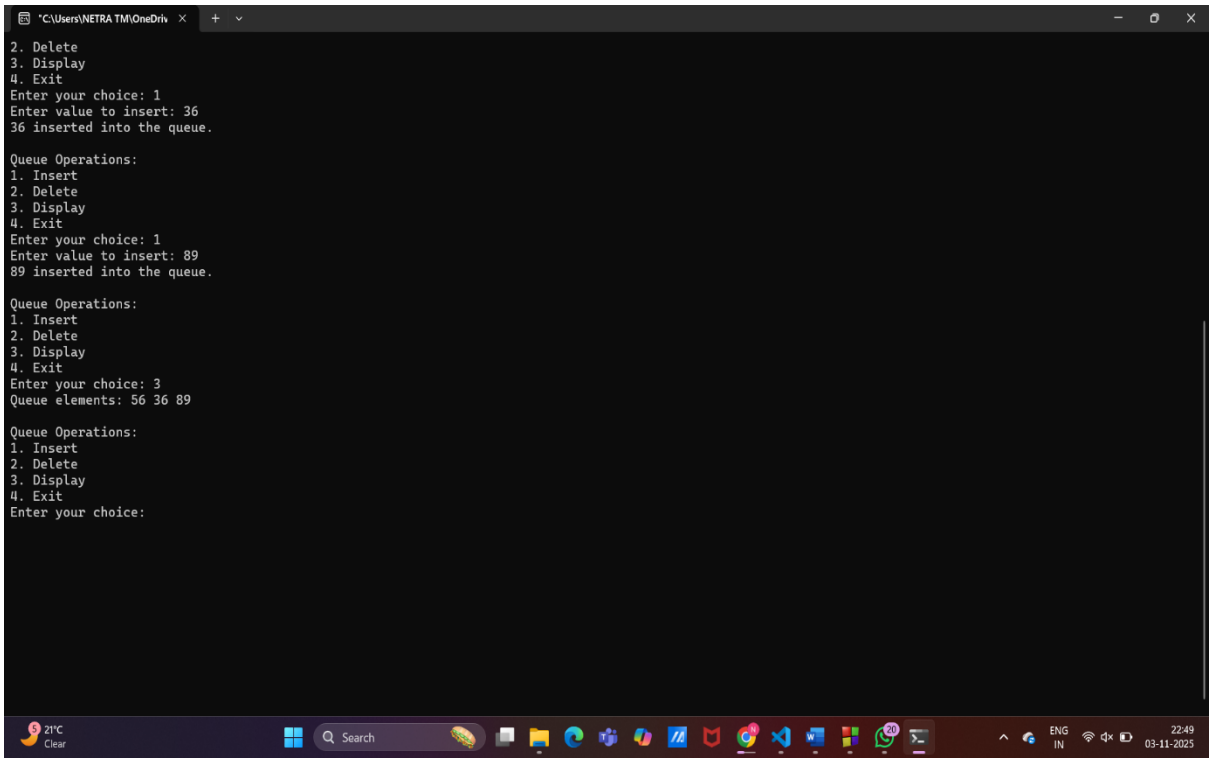
```
#include <stdio.h>
#define MAX 5 // maximum size of the queue
int queue[MAX];
int front = -1, rear = -1;
void insert(int value)
{
 if (rear == MAX - 1)
 {
 printf("Queue Overflow! Cannot insert %d\n", value);
 }
 else
 {
 if (front == -1)
 {
 front = 0; // first insertion
 }
 rear++;
 queue[rear] = value;
 printf("%d inserted into the queue.\n", value);
 }
}
void delete()
{
 if (front == -1 || front > rear)
   {
 printf("Queue Underflow! Queue is empty.\n");
 }
 else
 {
 printf("Deleted element: %d\n", queue[front]);
 front++;
```

```
 }
}
void display()
{
 if (front == -1 || front > rear)
 {
 printf("Queue is empty.\n");
 }
 else
 {
 printf("Queue elements: ");
 for (int i = front; i <= rear; i++)
 {
 printf("%d ", queue[i]);
 }
 printf("\n");
 }
}
int main()
{
 int choice, value;
 while (1)
 {
 printf("\nQueue Operations:\n");
 printf("1. Insert\n");
 printf("2. Delete\n");
 printf("3. Display\n");
 printf("4. Exit\n");
 printf("Enter your choice: ");
 scanf("%d", &choice);
 switch (choice)
```

```
{
case 1:
printf("Enter value to insert: ");
scanf("%d", &value);
insert(value);
break;
case 2:
delete();
break;
case 3:
display();
break;
case 4:
printf("Exiting program.\n");
return 0;
default:
printf("Invalid choice! Please try again.\n");
}
}
return 0;
}
```


C:\Users\NETRA TM\OneDriv
Queue Operations:
1. Insert
2. Delete
3. Display
4. Exit
Enter your choice: 1
Enter value to insert: 45
45 inserted into the queue.
Queue Operations:
1. Insert
2. Delete
3. Display
4. Exit
Enter your choice: 1
Enter value to insert: 56
56 inserted into the queue.
Queue Operations:
1. Insert
2. Delete
3. Display
4. Exit
Enter your choice: 2
Deleted element: 45
Queue Operations:
1. Insert
2. Delete
3. Display
4. Exit
Enter your choice: 1
Enter value to insert: 36
36 inserted into the queue.
Queue Operations:
1. Insert
2. Delete
3. Display
4. Exit
21°C
Clear
Search
ENG
IN
22:49
03-11-2025


C:\Users\NETRA TM\OneDriv
2. Delete
3. Display
4. Exit
Enter your choice: 1
Enter value to insert: 36
36 inserted into the queue.
Queue Operations:
1. Insert
2. Delete
3. Display
4. Exit
Enter your choice: 1
Enter value to insert: 89
89 inserted into the queue.
Queue Operations:
1. Insert
2. Delete
3. Display
4. Exit
Enter your choice: 3
Queue elements: 56 36 89
Queue Operations:
1. Insert
2. Delete
3. Display
4. Exit
Enter your choice:
21°C
Clear
Search
ENG
IN
22:49
03-11-2025