

```
#include <stdio.h>
```

```
#define MAX 50
```

```
void insert();
```

```
void delete();
```

```
void display();
```

```
int queue_array[MAX];
```

```
int rear = - 1;
```

```
int front = - 1;
```

```
main()
```

```
{
```

```
    int choice;
```

```
    while (1)
```

```
    {
```

```
        printf("1.Insert element to queue \n");
```

```
        printf("2.Delete element from queue \n");
```

```
        printf("3.Display all elements of queue \n");
```

```
        printf("4.Quit \n");
```

```
        printf("Enter your choice : ");
```

```
        scanf("%d", &choice);
```

```
        switch (choice)
```

```
        {
```

```
            case 1:
```

```
                insert();
```

```
                break;
```

```
            case 2:
```

```
                delete();
```

```
                break;
```

```
            case 3:
```

```
                display();
```

```
        break;

    case 4:

        exit(1);

    default:

        printf("Wrong choice \n");

    }

}

}
```

```
void insert()

{

    int add_item;

    if (rear == MAX - 1)

        printf("Queue Overflow \n");

    else

    {

        if (front == - 1)

            /*If queue is initially empty */

            front = 0;

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

        scanf("%d", &add_item);

        rear = rear + 1;

        queue_array[rear] = add_item;

    }

}
```

```
void delete()

{

    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");
    }
}

```

C:\Users\HP\Documents\queue operations.exe

```

1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 8
Wrong choice
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 7
Wrong choice
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 9
Wrong choice
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 6
Wrong choice
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit

```