

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

```
#include <stdlib.h>
```

```
#define MAX 6
```

```
int Q[MAX];
```

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

```
void insert() {
```

```
    if (rear == MAX - 1) {
```

```
        printf("Error: Queue is full");
```

```
        return;
```

```
    }
```

```
    int element;
```

```
    printf("Enter element to be added");
```

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

```
    if (front == -1) {
```

```
        front = rear = 0;
```

```
    }
```

```
    else
```

```
        rear++;
```

```
    Q[rear] = element;
```

```
    printf("%d enqueued to the queue", element);
```

```
}
```

```
void delete() {
```

```
    if (front == -1)
```

```
    {
```

```
        printf("Queue is empty");
```

```
        return;
```

```
    }
```

```
    int element = Q[front];
```

```
    if (front == rear) {
```

```
        front = rear = -1;
```

```
    }
```

```
    else {
```

```
        front++;
```

```
    }
```

```
    printf("%d dequeued from the queue", element);
```

```
}
```

```
void display() {
```

```
    if (front == -1) {
```

```
        printf("Queue is empty");
```

```
        return;
```

```
    }
```

```
    printf("Elements in the queue");
```

```
    for (int i = front; i <= rear; i++) {
```

```
        printf("%d", Q[i]);
```

```
    }
```

```
}
```

```

int main() {
    int choice;

    do {
        printf("Insert 1. Delete 2. Display 3. Exit 4.\n");
        printf("Enter your choice:");
        scanf("%d", &choice);

        switch(choice) {
            case 1:
                insert();
                break;
            case 2:
                delete();
                break;
            case 3:
                display();
                break;
            default:
                printf("Invalid choice");
        }
    } while (choice != 4);

    return 0;
}

```