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### **1)implementation of operation based on queue**

```
#include <iostream>
```

```
using namespace std;
```

```
int queue[100], n = 100, front = - 1, rear = - 1;
```

```
void Insert() {
```

```
    int val;
```

```
    if (rear == n - 1)
```

```
        cout<<"Queue Overflow"<<endl;
```

```
    else {
```

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

```
            front = 0;
```

```
            cout<<"Insert the element in queue : "<<endl;
```

```
            cin>>val;
```

```
            rear++;
```

```
            queue[rear] = val;
```

```

    }
}

void Delete() {
    if (front == - 1 || front > rear) {
        cout<<"Queue Underflow ";
        return ;
    } else {
        cout<<"Element deleted from queue is : "<<
queue[front] <<endl;
        front++;
    }
}

void Display() {
    if (front == - 1)
        cout<<"Queue is empty"<<endl;
    else {
        cout<<"Queue elements are : ";
        for (int i = front; i <= rear; i++)
            cout<<queue[i]<<" ";
    }
}

```

```
        cout<<endl;
    }
}

int main() {
    int ch;

    cout<<"1) Insert element to queue"<<endl;
    cout<<"2) Delete element from queue"<<endl;
    cout<<"3) Display all the elements of queue"<<endl;
    cout<<"4) Exit"<<endl;
    do {
        cout<<"Enter your choice : "<<endl;
        cin>>ch;
        switch (ch) {
            case 1: Insert();
                break;
            case 2: Delete();
                break;
            case 3: Display();
                break;
        }
    } while (ch != 4);
}
```

```
    case 4: cout<<"Exit"<<endl;
    break;
    default: cout<<"Invalid choice"<<endl;
}
} while(ch!=4);
return 0;
}
```