

```
public interface MyComparable {
    public int compareTo(Object obj);
}
```

```
public interface MyComparator {
    public int compare(Object o1, Object o2);
}
```

```
public class MyArrays {
```

```
    public static void sort(Object[] arr, MyComparator c) {
        //선택정렬 , 예)배열의 요소 정렬할 때 사용
        for(int i=0 ; i< arr.length-1 ; i++ ) {
            for(int j=i; j< arr.length; j++ ) {
                if( c.compare( arr[i], arr[j]) >0){
                    Object tmp = arr[i];
                    arr[i]= arr[j];
                    arr[j]= tmp;
                }
            }
        }
    }
}
```

```
    public static void sort(Object[] arr) {
        //선택정렬 , 예)배열의 요소 정렬할 때 사용
        for(int i=0 ; i< arr.length-1 ; i++ ) {
            for(int j=i; j< arr.length; j++ ) {
                if( arr[i] instanceof MyComparable) {
                    if( ((MyComparable)arr[i]).compareTo( arr[j]) >0){
                        Object tmp = arr[i];
                        arr[i]= arr[j];
                        arr[j]= tmp;
                    }
                }
            }
        }
    }
}
```

```
}
```

```

public class Student implements MyComparable{

    int kor;
    int eng;

    public Student(int kor, int eng) {
        this.kor = kor;
        this.eng = eng;
    }

    @Override
    public int compareTo(Object obj) {
        if(obj instanceof Student) {
            Student tmp = (Student)obj;
            return (this.kor - tmp.kor)>0 ?1:0;
        }
        return 0;
    }

    @Override
    public String toString() {
        return kor + " : " + eng + "";
    }

}

public class StudentTest {

    public static void main(String[] args) {

        Student[] arr = new Student[3];
        arr[0]= new Student(89,99);
        arr[1]= new Student(99,100);
        arr[2]= new Student(100,79);

        //국어성적순 정렬
        MyArrays.sort(arr);

        System.out.println("국어성적순");
        for(int i=0 ;i< arr.length; i++)
            System.out.println( arr[i]);

        // 영어성적순 정렬
        MyArrays.sort(arr , new MyComparator() {
            @Override
            public int compare(Object o1, Object o2) {
                return ((Student)o1).eng - ((Student)o2).eng ;
            }
        });
        //람다식 사용가능
        MyArrays.sort(arr , (o1,o2)-> ((Student)o1).eng - ((Student)o2).eng );

        System.out.println("영어성적순");
        for(int i=0 ;i< arr.length; i++)
            System.out.println( arr[i]);
    }

}

```