**Spatial Collection** - add following methods to Collection Interface

_**SpatialCollection(Comparator<? super E>... comparators)**_: Creates a new empty spatial collection, where the provided comparators define the dimensions along which data are compared. Each dimension is assigned an index (0, 1, ...) that is fixed according to the order in which the comparators are provided as parameters to the constructor.

_**E max(int dimension)**_: Returns a greatest element in the collection along the given dimension. This method throws a `NoSuchElementException` when the collection is empty. It throws an `IllegalArgumentException` when the given dimension index is not valid for this spatial collection.

_**E min(int dimension)**_: Returns a least element in the collection along the given dimension. This method throws a `NoSuchElementException` when the collection is empty. It throws an `IllegalArgumentException` when the given dimension index is not valid for this spatial collection.

_**Collection<E> withinBounds(E minCorner, E maxCorner)**_: Returns a collection of the elements that fall within (or on) the boundary of the multidimensional box defined by the two given corners, _minCorner_ and _maxCorner_. That is, this method performs an orthogonal range search. It requires that the coordinates of _minCorner_ are less than or equal to those of _maxCorner_ along every dimension of the spatial collection.
Maintaining multi-dim data multiple orderings!
K-d Tree for \( k (\text{#dim}) = 2 \)

At even level branch using x-coord

At odd level branch using y-coord