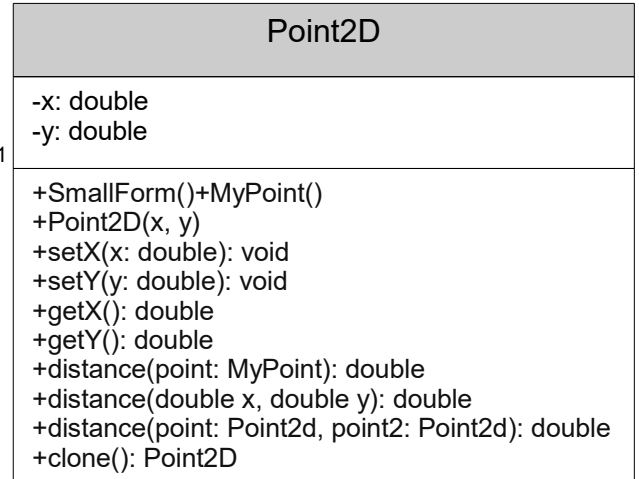
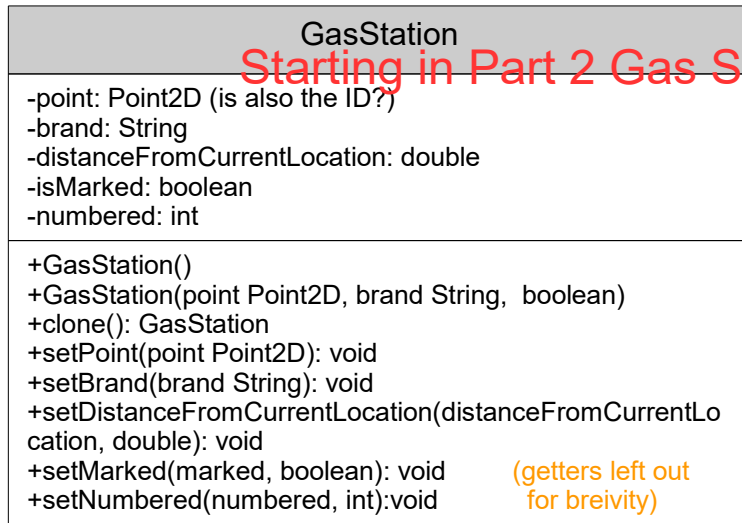
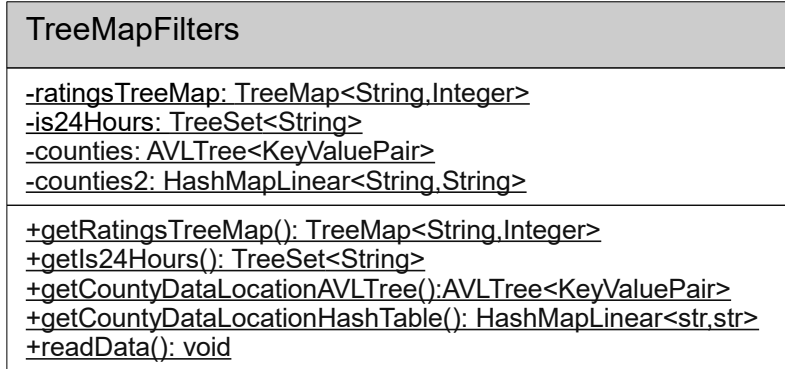
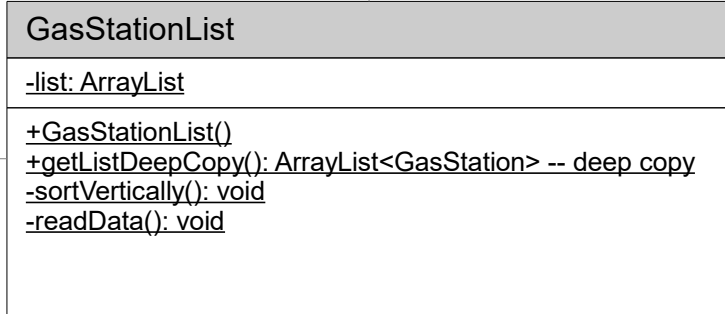


Starting in Part 2 Gas Station can just be any location



1..\*

1



Data data.txt, data2.txt, and data3.txt files

## GenericQuickSort

Utility Class only containing static methods

+genericQuickSort(list, ArrayList<E>): void  
 +genericQuickSort(list, ArrayList<E>, comparator Comparator<? super E>): void  
 +quickSort(list, ArrayList<E>, first, int, last, int)  
 +quickSort(list, ArrayList<E>, first, int, last, int, comparator Comparator<? super E>)  
 +partition(list, ArrayList<E>, first, int, last, int)  
 +partition(list, ArrayList<E>, first, int, last, int, comparator Comparator<? super E>)

## GasStationComparator

+compare(gasStation1, GasStation, gasStation2, GasStation): int

## GasStationComparatorDistance

+compare(gasStation1, GasStation, gasStation2, GasStation): int

(continued) SortByClosest

## (continued) GasStationList

### SortByClosest

Utility Class only containing static methods

+sortByClosest(point Point2D, ratingFilter int, is24Hours boolean): ArrayList<GasStations>  
+sortByClosest(): ArrayList<GasStations>

### View

-currentLocation: Point2D  
-ratingFilter: int  
-is24Hours: boolean

-getCenterPane(): Pane  
-getRightPane(): Pane  
-getLeftPane(): Pane  
-getBorderPane(): BorderPane  
-repaintLeftCenterPane(): void  
+start(): void  
+main():void

### Help

Utility Class only containing static methods

+about

### HelperClass

Utility Class only containing static methods

+getTxtFileAsList():ArrayList<String>  
+writeLineToTxtFile(): void  
+validatePositiveIntRange(s, String, x  
int, y int): int

Part 3 added two classes that follow standard algorithms for AVLTree and HashMap(HashMapLinear (linear open addressing)). Since methods and data fields are standard fare they are left out for brevity.

-See program comments for more info

-These classes are implemented in the TreeMapFilters Class which as of Assignment 3 the TreeMapFilters class is sort of a BST/HashTable Tools Helper class.

Part4 added one class that follow standard algorithms for parallel sorting(ParallelGenericQuickSort). Since methods and data fields are standard fare they are left out for brevity.

-See program comments for more info

-This class is called in the GasStationList class