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| **MyMap** | |
| associate() | if there are N items that are mapped, the big-O of a mapping of a given item is **O(log N).** |
| find() | if there are N items that are mapped, the big-O of finding a given item is **O(log N).** |
| **SegmentMapper** | |
| init() | if there are M StreetSegments in the map data and N attractions on average associated with each StreetSegment, the big-O of initializing SegmentMapper is **O(M\*log M + log N)** |
| getSegments() | this function simply calls SegmentMapper’s private MyMap object’s find method. therefore, if there are N StreetSegments in the MyMap object, the big-O of finding StreetSegments associated with a given GeoCoord is **O(log N).** |
| **AttractionMapper** | |
| init() | if there are M StreetSegments in the map data and N attractions on average associated with each StreetSegment, the big-O of initializing AttractionMapper is **O(M + log N).** |
| getGeoCoord() | this function simply calls AttractionMapper’s private MyMap object’s find method. therefore, if there are N attractions in the MyMap object, the big-O of finding the GeoCoord associated with a given attraction is **O(log N).** |
| **Navigator** | |
| navigate() | if there are N segments and A attractions in the map data, the big-O of navigating is **O((A+N)\*log(A+N)).** |