**Greedy Best-first Search:**

* **Idea:** GBFS is a search algorithm that looks for the most promising path from the initial state to a goal. It is essentially a best-first search with the evaluation function being the heuristic function.
* **Algorithm:** The algorithm starts by initializing two arrays: One containing the list of nodes to retrieve after each iteration – ‘frontier’ and one containing a set of dictionary values of a polygon and its state – ‘reached’. At each iteration, the frontier sorts itself with the value of heuristic ascending, meaning if the first element is retrieved from the frontier, it will have the lowest heuristic value. This node is then checked to see if it’s the goal or not. If it is, the algorithm returns; else, the algorithm continues expanding it, append its successors to the frontier after checking with the ‘reached’ set. The algorithm stops when there are no more nodes to iterate (all polygons exhausted and no goal is found), or a goal is reached.
* **Example:**