**SIMPLE BATTLESHIPS – STRATEGIC SEARCH**

The third strategy which is a Strategic Search is implemented using **Diamond Search Algorithm.**

The Diamond Search algorithm becomes more effective compared to the remaining two strategies as the search mechanism used here is diamond search point pattern.

The algorithm for the diamond search pattern runs as follows:

1. Starts with searching the location of the ship at the centre.
2. Set step size to 2.
3. Search 8 locations around the location (0,0) using diamond search pattern point.
4. The location that matches with the input file needs to be considered out of all the points.
5. Now set the new origin value with the required location in step 4.
6. Set the new step size to s/2.
7. Repeat the search procedure to find the new location.
8. Select the location that matches with the input file and make it the new origin and repeat the process of diamond search pattern point.

The Diamond Search Algorithm finds the ships with a smaller number of cells searched compared to the other two search strategies.