**ALGORITHM DOCUMENTATION GUIDE**

For each of the algorithms you have implemented, provide the required details using the following guide.

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| **Algorithm Name:** | **Details** | **Intructions** |
| State Representation |  | Specify the data structure you used. Write the variable declarations. Indicate if it’s an original implementation of a data structure, or if you are using a library (e.g. STL, etc.) Briefly explain why the data structure you picked is appropriate. |
| Q (partial paths container) |  |
| Expanded List (if applicable) |  |
| Non-Strict Visited List (if applicable) |  |
| Pseudo code of your algorithm implementation |  | Specify the main looping mechanisms involved, conditional statements, as well as the main variables. Do not copy and paste what we have in the lecture slides. This should reflect the skeleton of your own implementation of the algorithm. |
| Extra work (Bonus):  Original Heap data structure   * Specify how you are able to delete elements in the middle of the heap   Original Hash Function   * Specify and explain your formula. Does it guarantee that there will be no duplicate hash values? |  | (e.g. original implementation of heap data structure, original hash function implementation) |