## A04 8 Puzzle - Part 2

# MISSING 50 Possible Points

| 10/28/2022

Attempt 1 VIN PROGRESS
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### **Unlimited Attempts Allowed**

### ∨ Details

### Sorting

Assignment: 8 Puzzle - Part 2



# Learning Objectives

- Select the appropriate data structure(s) to solve a problem given a set of programming specifications.
- Determine the performance characteristics of a software application.
- Implement A\* search algorithm.



## Overview

In this second part of the assignment, you will complete the program to solve the 8-puzzle problem and its natural generalizations using the A\* search algorithm.

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Complete the project you started in part 1 of this assignment. Ensure that the class Board works as expected and implement the class **Solver**.

## Assignment Instructions:

The assignment instructions are based on an assignment of Princeton's algorithm course.

<a href="http://www.cs.princeton.edu/courses/archive/fall14/cos226/assignments/8puzzle.html">http://www.cs.princeton.edu/courses/archive/fall14/cos226/assignments/8puzzle.html</a>)

They come with additional resources listed below.

JUnit tests for class Solver are available on CodePost. Again, you can submit as often as you like but only up until the deadline.

JUnit tests on CodePost are only a subset of the tests that are used for grading. It is the responsibility of both team partners to complete the testing and to ensure that all assignment requirements are met.

### Additional Resources:

Whenever there is a difference or inconsistency between the assignment instructions and one of the additional resources, the instructions need to be followed.

#### **Checklist:**

Here is a checklist that includes frequently asked questions, input files for testing, and possible progress steps.

http://www.cs.princeton.edu/courses/archive/fall14/cos226/checklist/8puzzle.html (http://www.cs.princeton.edu/courses/archive/fall14/cos226/checklist/8puzzle.html)

#### Video:

https://www.youtube.com/watch?v=d6aRjJKDfpY&feature=youtu.be (https://www.youtube.com/watch?v=d6aRjJKDfpY&feature=youtu.be)



(https://www.voutuba.com/watch?v=d6aDi IKDfnV&faatura=voutu.ha)

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## Submission

**One** team member embeds the screenshot from CodePost and attaches the required java files(no zip, no JAR). (https://community.canvaslms.com/t5/Student-Guide/How-do-I-embedimages-from-Canvas-into-the-Rich-Content-Editor/ta-p/356)

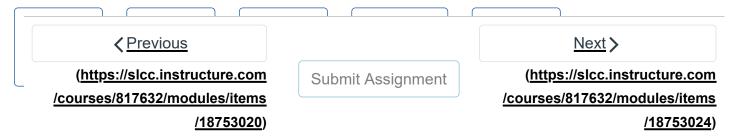
**Both** team members submit the name of the partner and the discussed pebble distribution. If the pebble distribution is not 50/50, include a description that explains the difference.

#### ∨ View Rubric

A04 - Part 2		
Criteria	Ratings	Pts
JUnit tests for class Solver view longer description		/ 30 pts
Functional and Performance Requirements view longer description		/ 15 pts
Style   Best Practices view longer description		/ 5 pts
		Total Points: 0

Keep in mind, this submission will count for everyone in your Project Groups group.

### Choose a submission type



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