AI Assignment - 1

Implementation and Performance Comparison of

Classical Search Algorithms Using N-Puzzle

Problem

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1 Introduction

N-Puzzle is a popular problem used by AI researchers for testing new AI algorithms. In the puzzle there is an N X N grid and N2 - 1tiles, each marked with a number from 1 to N2 - 1. One of the positions in the grid is kept empty.

The goal of the AI is to move the tiles in such a way such that the position of the tiles reach a particular goal state, in as few steps as possible. Any tile adjacent to the empty grid position horizontally or vertically can move to the empty place.