Aersp424 Fall 2014 – Final Project Group Meeting

Group members: Chengping Chai, Tonnam Balankura, Xiaotian Zhu

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Task:

deciding what to do for final project; writing up the proposal and emailing the instructor of Aersp424; setting up Github; discussing initial role of group members.

Proposal of Final Project: **Game of Gem Puzzle**

We will implement a console application for the “**Gem Puzzle**” (also called “fifteen puzzle”):

<http://en.wikipedia.org/wiki/15_puzzle>

Tentative Features:

1. user will be able to create a puzzle, either randomly or by user input, and select/save to a puzzle database, which is read from / written to a .CSV file.

2. user will be able to play the game, abandon playing it, saving it to a game database (again, .CSV file).

3. the program has functionality to check puzzle solvability and to find one solution to it if it is solvable.

4. We will implement:

a) class Puzzle, which has member functions IsSolvable(), SolveIt(), numRow, numCol

b) class Game

c) class Solution, which is a child of the class game

5. Users will be provided with a menu (choices to make) during the runtime at each step. Maybe we will use dispatch table with function pointers.

6. (optional) advanced features: difficulty level, which is determined by the minimum number of steps needed to solve the puzzle.

Next Meeting:

Tonnam Balankura – implement class Puzzle, a member function of Puzzle called Play(), Abandon(),

Xiaotian – sending the email, study the algorithm for solving

Chengping – maintain Github repository for our project, study algorithm for checking solvability