

model

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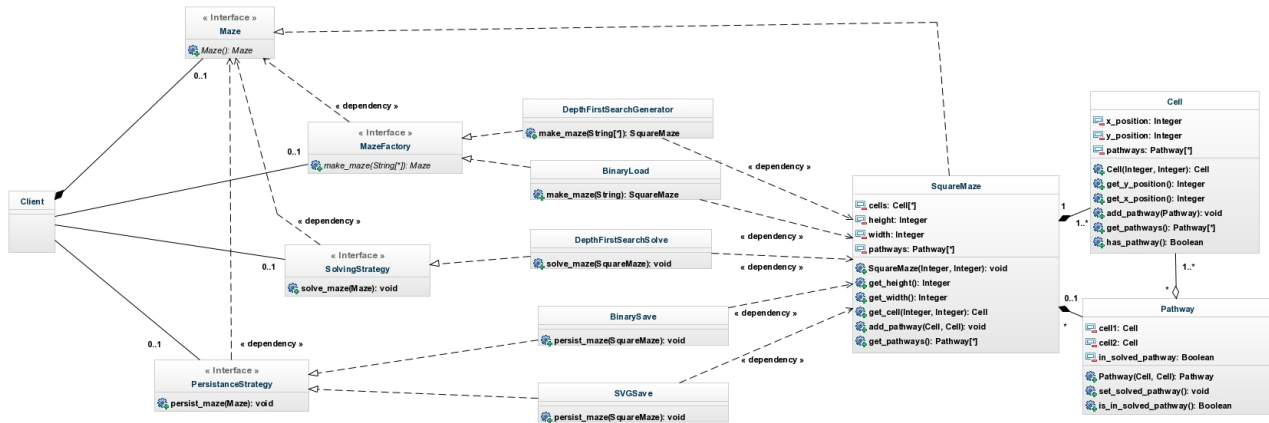
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1. Overview

1.1 Model Description

1.2 Diagrams



2 Classifiers

2.1 Class SquareMaze

2.1.1 Attributes

- **cells** : Cell [*]
- **height** : Integer [1]
- **width** : Integer [1]
- **pathways** : Pathway [*]

2.1.2 Generalizations

None

2.1.3 Operations

- Void **SquareMaze** (height : Integer, width : Integer)
- Integer **get_height** ()
- Integer **get_width** ()
- Cell **get_cell** (y_position : Integer, x_position : Integer)
- Void **add_pathway** (cell1 : Cell, cell2 : Cell)
- Pathway **get_pathways** ()

2.1.4 Associations

- **cell** : Cell [1..*]

- **pathway** : Pathway [*]

2.2 Class DepthFirstSearchGenerator

2.2.1 Attributes

No additional attributes

2.2.2 Generalizations

None

2.2.3 Operations

- SquareMaze **make_maze** (seed : String)

2.3 Class BinaryLoad

2.3.1 Attributes

No additional attributes

2.3.2 Generalizations

None

2.3.3 Operations

- SquareMaze **make_maze** (file_path : String)

2.4 Class DepthFirstSearchSolve

2.4.1 Attributes

No additional attributes

2.4.2 Generalizations

None

2.4.3 Operations

- Void **solve_maze** (maze : SquareMaze)

2.5 Class BinarySave

2.5.1 Attributes

No additional attributes

2.5.2 Generalizations

None

2.5.3 Operations

- Void **persist_maze** (maze : SquareMaze)

2.6 Class SVGSave

2.6.1 Attributes

No additional attributes

2.6.2 Generalizations

None

2.6.3 Operations

- Void **persist_maze** (maze : SquareMaze)

2.7 Class Client

2.7.1 Attributes

No additional attributes

2.7.2 Generalizations

None

2.7.3 Operations

No additional operations

2.7.4 Associations

- **mazeFactory** : MazeFactory [0..1]

- **solvingStrategy** : SolvingStrategy [0..1]

- **persistanceStrategy** : PersistanceStrategy [0..1]

- **maze** : Maze [0..1]

2.8 Class Cell

2.8.1 Attributes

- **x_position** : Integer [1]

- **y_position** : Integer [1]

- **pathways** : Pathway [*]
Description: connected as in not walled off (neighboring cells with an open edge)

2.8.2 Generalizations

None

2.8.3 Operations

- Cell **Cell** (x_position : Integer, y_position : Integer)

- Integer **get_y_position** ()

- Integer **get_x_position** ()

- Void **add_pathway** (connecting_cell : Pathway)

- Pathway **get_pathways** ()

- Boolean **has_pathway** ()

2.8.4 Associations

- **squareMaze** : SquareMaze [1]

- **pathway** : Pathway [*]

2.9 Class Pathway

2.9.1 Attributes

- **cell1** : Cell [1]

- **cell2** : Cell [1]

- **in_solved_pathway** : Boolean [1]

2.9.2 Generalizations

None

2.9.3 Operations

- Pathway **Pathway** (cell1 : Cell, cell2 : Cell)

- Void **set_solved_pathway** ()

- Boolean **is_in_solved_pathway** ()

2.9.4 Associations

- **squareMaze** : SquareMaze [0..1]

- **cell** : Cell [1..*]

3 Interfaces

3.10 Interface MazeFactory

3.10.1 Attributes

No additional attributes

3.10.2 Generalizations

None

3.10.3 Operations

- Maze **make_maze** (args : String)

3.10.4 Associations

- **client** : Client [0..1]

3.11 Interface SolvingStrategy

3.11.1 Attributes

No additional attributes

3.11.2 Generalizations

None

3.11.3 Operations

- Void **solve_maze** (maze : Maze)

3.11.4 Associations

- **client** : Client [0..1]

3.12 Interface PersistenceStrategy

3.12.1 Attributes

No additional attributes

3.12.2 Generalizations

None

3.12.3 Operations

- Void **persist_maze** (maze : Maze)

3.12.4 Associations

- **client** : Client [0..1]

3.13 Interface Maze

3.13.1 Attributes

No additional attributes

3.13.2 Generalizations

None

3.13.3 Operations

- Maze **Maze** ()

3.13.4 Associations

- **client** : Client [0..1]