

Cat

Manages its
Coordinate
Auto moves
the Cat
Checks if it
is in the same
position as
something else

moveCharacter
getCoordinate
inSamePosition
autoMaze

Player

Manages its
Coordinate
Checks if it
is in the same
position as
something else

moveCharacter
getCoordinate
inSamePosition

Coordinate

Checks if the
coordinate
passed is equal
Gets an offset
for the Generator
Creates a random
Coordinate

equals
getOffset
getRandomCoordinate

Maze

Creates the
maze
Retrieves
specific cell
based on
coordinate &
row/column
Checks if a
coordinate is
in valid play
space

initializeMaze
getCell
isInside
generateMaze
validateNo2x2Cells
validatePlayersPosition
induceCycles

MazeCell

is a border,
moveable, cat,
player, visible,
cheese, player
visited & algorithm
visited

is Border
set Border
is Moveable
set Moveable
is Cat
set Cat
is Player
set Player
is Cheese
set Cheese
is Visited
set Visited
is Player Visited
set Player Visited
is Algorithm Visited
set Algorithm Visited

Generate
maze using
randomized
depth-first-
search
Validate the
2x2 restriction
Add players
to the cell
Create maze
Path loops

MazeDisplay

prints Maze
errzy slowly
(Hidden)
reveals full
Maze

printMaze
revealMaze
unhideMaze
printCell

Reveals the
radius
Prints the
cell type

MazeGrid Helper

/only for methods
that don't fit in
MazeGrid
Check if player
move is valid

check Valid Move

MazeGrid

Get player Coordinate
Move player & update
cats
Check win/loss
Spawn player & cats

getPlayerPosition
handlePlayerMove
updatePlayerPosition
updateCatPosition
setLost/getLost
checkWinCondition
setInitialCoordinate

Game

Get player Coordinate
Move player & update
cats
Check win/loss
Spawn player & cats

getPlayerPosition
handlePlayerMove
updatePlayerPosition
updateCatPosition
setLost/getLost
checkWinCondition
setInitialCoordinate

Display

Call menu
loop

main()

GameHelper

/only for text
based io
Get input
(w/error
handling)
Print welcome
Print help

getInput
printWelcomeMessage
printHelp