Main

Build main menu

Ask to select a game

Show buttons for every game

IF Maze is selected

Start Maze Game

IF Snake is selected

Start Snake Game

IF Sudoku is selected

Start Sudoku Game

IF Word Search is selected

Start Word Search Game

If Slider Puzzle is Selected

Start Slider Puzzle

Maze

Constructor (LevelNames levelName)

Call LevelName with levelName;

CALL JFrame with Frame("Maze Game");

Make Frame not resizable

CALL TIleMap with mazeLevelData

CALL GameScreen with gameScreen

ADD gameScreen to Frame

SET Frame as Visible

CALL EnemyMove with em

CALL KeyListener with KeyListener

Key is Pressed

If UP key or W is pressed

CALL move in mazeLevelData with argument UP enumeration

If DOWN key of S is Pressed

CALL move in mazeLevelData with argument DOWN enumeration

If LEFT key or A is Pressed

CALL Move in mazeLevelData with argument LEFT enumeration

IF RIGHT key or D is Pressed

CALL Move in mazeLevelData with argument RIGHT enumeration

CALL repaint in gameScreen

START em Thread

main Method

Initialize Menu Screen

IF start button is pressed

Start Maze

IF Instruction button is pressed

Show instructions

If High Score button pressed

Show High scores

win maze Method

Show congratulations screen

Go to next maze

death screen

Encourage player to try again

Restart current maze

Direction enumerations

UP

DOWN

LEFT

RIGHT

Level Name Enumerations

Level 1

Level 2 . . .

Level 12

Maze Items Enumeration

WALL

FLOOR

PLAYER

ENEMIES

EXIT

TIle Map

Constructor

Build Maze Grid according to level number

Set Dimensions of Maze according to grid width

Calculate width

Make Enemy (arguments X and y Coordinates)

Add enemy to grid using X and Y coordinates

Make Player

Add player start point

Make Exit

Add Exit to grid

Make Floor

Add Floor to grid

Make Vertical Path

FOR each grid place in path

CALL make Floor for given point

Make Horizontal Path

For each grid place in path

CALL Make Floor for given Point

Boolean isPresent with Arguments Maze Items and X and Y point

return True if Maze item exists for point in grid

Move with arguments Direction

IF UP is Direction and Grid point above is not WALL

Move to grid point

IF DOWN is Direction and Grid point below is not WALL

Move to grid point

IF LEFT is Direction and Grid point to left is not WALL

Move to grid point

IF RIGHT is Direction and Grid point to right is not WALL

Move to Grid Point

Boolean enemyGotYou with arguments x and y coordinate

Return true if enemy coordinate is x and y

GameScreen

Constructor with Argument Maze Level Data for Level

Fill Grid with maze level data

Draw Characters with arguments facing direction, Color and facial expression

Draw characters with all arguments

TitleScreen

Constructor

Make JFrame

Make Start button

Make instruction Button

Make High score button

Enemy Move

Run Thread

While STOP is not called

FOR each Enemy

CALL enemyMove for enemy

enemyMove

IF player is further away Vertically than Horizontally

CALL moveUpDown

IF could not move UP or DOWN

CALL moveLeftRight

ELSE

CALL moveLeftRight

IF cannot move left Right

CALL moveUpDown

moveUPDOWN

IF player is above you

IF no wall is above you

Move up

ELSE if player is below you

IF no wall is below you

Move down

ELSE

Return FALSE

CALL repaint in gameScreen

Return true (if ELSE is not called)

moveLeftRight

IF player is to left of you

IF no wall is to leftyou

Move left

ELSE if player is to right of you

IF no wall is to right ofyou

Move Right

ELSE

Return FALSE

CALL repaint in gameScreen

Return true (if ELSE is not called)