Pac-Man – UML Class Diagram

1) We are planning to use Java for this project. All team members have experience in the COMP 202 and COMP 250 courses at McGill, so we'd consider our level as intermediate.

2) See next page.

GameCharacter

xPos : int
yPos : int
turnAngle : double
speed : int
width : double
height : double
img : Image
direction : String

move(String direction) : void

Pacman

mode : String
lives : int
score : int

addLife()
removeLife()
addScore()
eat()

EdibleElement

type : ElementType
scoreValue : int
state : boolean

addScore()
setMode(int mode)

**<<enum>>
ElementType**

Fruit
Energizer
Dot

Fruit

Energizer

Dot

Ghost

mode : String
personality : String

kill()

GameControl

level : int
score : int
timer : double
lives : int

startGame()
endGame()
pauseGame()
resetGame()
winLevel()
newRound()
startTimer()
resetTimer()
draw()

GameElements

xPos : int
yPos : int
width : double
height : double
img : Image

**<<enum>>
NonEdibleElement**

Wall
EmptySpace

Maze

lives : Image
score : int
deadSpace : Image
levels : int
maxX : int
maxY : int
tileSize : int

reloadTile()
clearMaze()
dotsRemaining()

0..2
0..250
4
0..250
0..250
244

0..250
1

1
1

5
1

4
1

1

1..*
1

1
1