Algorithms and Programming II

Unit Laboratory 3 - 2019-1

Prototipo atrapa el PAC-MAN

1. Specification of Functional Requirements.

Nombre	**R.F# 1. Save the best scores of a player**
Resumen	The System will save the scores of a player if it has the lowest score of rebounds, and the file of the scores will be serialized so that it can not be edited afterwards.
Entradas	
Player's name.	
Resultados	
Player's score has been saved	

Nombre	**R.F# 2. Show information about the game**
Resumen	The System will show the appropriate information to the player, who has never played it before, in order to understand it.
Entradas	
Any.	
Resultados	
The appropriate information of interest is shown.	

Nombre	**R.F# 3. Move a pac-man**
Resumen	The system will create the pac-mans and have the possibility of moving vertically or horizontally, they must also collide between themselves and against the ends of the windows. They must also disappear if the player clicks on the pac-man.
Entradas	
Any.	
Resultados	
The System will move the pacmans depending on the conditions in which it is.	

Nombre	**R.F# 4. Load a game**
Resumen	The system will allow loading a game
Entradas	
Text file.	
Resultados	
The selected selected text file is loaded.	

Nombre	**R.F# 5. Save a game**
Resumen	The system will allow you to save the current game through persistence so that the game can then be reloaded.
Entradas	
Any.	
Resultados	
The system will save the game that is running.	

Nombre	**R.N.F# 1. Perform the program with JavaFX**
Resumen	The JavaFX framework with scene Builder is used to create the graphic user interface.
Entradas	
Any.	
Resultados	
The graphic interface will be used.	

2. Design

Class diagram

3. Design of Unit Test Cases

Design Test

4. Traceability of Analysis to Design

Functional Requirements	Method	Class

R.F#1.	Stop()
	updateTotalBounces ()
	getBounces()
	getNumberOfBounces ()
	loadHall(Stage s)
	getName()
	addScore()
	loadHallOfFame()
	getScore()
	hallOfFame.fxml
	CatchThePacman3.fxml
		ui/ PacmanController
		model/Game
		model/Pacman
		model/Game
		ui/ PacmanController
		ui/ HallOfFameController
		model/Game
		model/Game
		model/Score

R.F#2	viewGameInfo()	ui/ PacmanController

R.F#3	initialize()
	run()
	move()
	bounce()
	correctPosition()
	verifyBounce()
		ui/ PacmanController
		threads/PacmanThread
		model/Pacman
		model/Pacman
		model/Pacman
		model/Pacman

R.F#4	loadGame() load() FILE_PATH FILE_PATH_1 FILE_PATH_2	ui/ PacmanController model/Game data/level0 data/level1 data/level2
R.F#5	save() save() SCORES_PATH	ui/ PacmanController model/Game data/scores.dat