Sprint Retrospective, Iteration # 2

Number of Hours					
Member	Alin	Filip	Paul	Ruben	Simran
Estimated number of hours	15	14	15	14	15
Actual number of hours	9	13	12	13	18

User Story	Task	Definition of Done	Task Assigned To	Estimated Effort per Task (in hours)	Actual Effort per Task *(in hours)*	Done *(yes / no)*	Notes
The player wants the game to be over when pacman collides with a ghost. There should be several ghosts that move around the board according to their own behavior. This can also include some of the special behaviors such as frightened mode or scatter mode. *The player wants the ghosts to move following*	Finish implementing ghosts AI	The ghosts can be in chase (normal), frightened (when pacman can eat them) & scatter mode (ghosts circle around blocks of walls). Ghosts choose a target Square from the board, which will be approached by visiting the closest square to it given all accessible neighbouring squares to it's current position, except to the ghosts back (max 3).	Simran/ Paul	10	12	No	Two of the four ghosts are implemented and completely tested. We might stray away from the original behaviors of the other two ghosts and make it slightly different. A lot of refactoring was also done in other parts of the code in order to implement it in the ghost methods.

the same rules as the ones Pacman abides by, this includes not being able to go through walls, and wrapping around the board.		Entity movement behavior is extended from a Moving Entity class. Each ghost moves according to its own behavior.					
	Ghosts 'special' behavior	Once in 'frightened' state, the ghosts start all running away from pacman and can be eaten by him. The ghosts switch between normal (chase) and scatter mode on a timely basis. Once in scatter mode, the ghosts go to corners in the maze and circle around there.	Alin	4	2	Yes	
As a user, I would want a screen to appear when I win/lose the game.	Win/Loss Screen	There should be a screen, one for winning the game and one for losing the game (when all lives are lost).	Simran	2	2	Yes	The screens have been made however the design can use some more improvement.
		The screen should appear at the end of the game. The screen that appears depends on the player's position (won or lost).	Filip	4	1	No	
As a user, I would want the game to consist of multiple levels, with increasing difficulty.	Multiple Levels	There should be multiple levels, each with a different map.	Alin	2	2	Yes	

		As the levels increase, the power pellets are placed in hard to get positions. The speed of the entities increases.					
The player wants to be able to be able to eat big pellets in order to get more points. The player would also like to eat these big pellets in order to eat the ghosts for that time period.	Power Pellets	There are pellets on the board that are larger than the regular pellets and give more points. The ghosts will be eatable and won't eat pacman for this time period (10 seconds) The ghosts go into frightened mode and flash blue.	Paul	5	0	No	Postponed due to more important ghosts tasks.
As a user, I would want the game to look good which includes having nice looking walls.	Better wall sprites	The wall sprites should be more appealing to the eye.	Alin	2	1	No	
As a player, I do not want to walk into walls or stand still by walking into walls. It is also desirable that the ghosts don't walk into walls	Wall Collision bugs	Entities will not be able to move close enough into wall squares, such that they can no longer move around on the other axis. The player is prevented from moving into a wall directly next to him (a neighbor of his square), as this leads to standing still.	Ruben	3	1	Yes	
As a player I want my pacman to have multiple lives. *As a player, I want to lose a life when I collide with a*	Multiple lives	PacMan starts the game with 3 lives. Once pacman collides with any of the ghosts that are not in the 'distressed' state, he loses one life.	Ruben	6	6	Yes	

regular behaved ghost. After losing a life I would like to have immunity for 2 seconds a state in which I cannot die again but I cannot gather pellets either. *As a player I want to lose the game if I have no lives left and I die again.*		When pacman dies and still has lives left, the number of lives decreases by 1 and pacman enters 'immune' state for 2 seconds. While in 'immune' state, pacman cannot die again or collect any pellets, he can only move according to the maze's layout. While in 'immune' state, pacman turns white. Game is lost once pacman dies and has no more lives left.					
As a user, I want to be certain that my password is stored securely	Hash passwords	The user's passwords are kept in the database in a SHA hashed format and to verify the validity of an input password, the 2 hashes are compared as strings.	Filip	7	10	No	Postpone due to requirements to change attributes in the database
As a developer, I should be able to follow the design of the game by making use of the UML diagrams such as sequence diagram an class diagram	Create class diagrams	Class diagram properly represents the new project structure.	Filip	3	3	Yes	
	Create sequence diagrams	There should be a sequence diagram for any 3 functionalities that were shown in the use case diagram	Simran	3	4	Yes	
As a player, I would like that pacman dies (show animations) when it collides with a regular ghost and has no lives left, hence ending the game.	Pacman’s death	Once pacman collides with a regular ghost and has no more lives left, it should die. Pacman’s death should have an animation and also end the game. A screen should pop up allowing the user to enter his/her username	Alin	4	2	Yes	

		in order to save the current score with the username. After the player enters his/her details he/she should be able to either play again, view leaderboard, or go back to the main menu.					
As a user, I want to be able to see the top 5 scores from the leader board.	Leaderboard	A leaderboard is being kept. You can retrieve the top five scores from the database.	Ruben	5	6	Yes	Took longer because some database structure/tests needed to be changed
As a user, I want the game to be working correctly without any bugs.	Testing the rest of the game logic	All classes are tested with more than 50% coverage.	Alin	3	2	No	

Project Pacman

Group: 25

Main Problems Encountered

Problem 1

Description:

In the backlog, we assigned the same person doing the task to also be responsible for that task which led to tasks not being completed.

Reaction:

Led to a discussion and came to a conclusion that the person doing the task should not also be responsible for that same task. So the person responsible can actually look into the project description once again to make sure that everything is there.

Problem 2

Description:

Merge requests weren't being approved on time which led to the TA not being able to find our assignments at the time of the due date.

Reaction:

We have decided to make use of the group chat and message each time we have a merge request so the members reviewing it are aware of a new merge request and approve it as soon as possible.

Project Pacman

Group: 25

Adjustments for the next Sprint Plan

From now onward, there are going to be different people working on the task and reviewing it to ensure that everything is done. In addition, we'll be more effective with our communication.