Sprint Retrospective, Iteration #4 Group Ubiquitous Broccoli

User story / requirement	Task	Task assigned to	Estimated effort per task (in hours)	Actual Effort per Task (in hours)	Done (yes/no)	Notes
As a user I want to have the bugs fixed so that I can play the game without crashing	Double-clicking on a ball when it is in a receptor, causes a failure of the game.	**Bas Musters**	2	3	Yes	This fix simplified our code a lot
As a developer I want to incorporate two design patterns into the codebase	Create a sequence diagram for the design patterns	Earth Grob, Matthijs Rijm	2	2	No	Partially done
	Create a class diagram for the design patterns.	Earth Grob, Matthijs Rijm	1	3	No	Partially done
	Implement the design patterns	Earth Grob, Matthijs Rijm	4	6	No	Each design pattern was more or less 4 hours.
As a user I want to be able to see a working scoreboard	Display in-game score on screen	**Christian Slothouber**	2	1	No	The locked tracks took more time than expected. This feature is postponed
As a user I want to be able to pause and resume a game	Add basic user interface for pausing/resuming game (i.e. escape)	**Bas Musters**	2	1	No	More complicated than expected ands needs more planning

As a user I want to be able to see balls animating to make the game more realistic	Implement animation of balls	**Fabian Mastenbroek**	3	2	Yes	
As a developer I want to have locks on rails to make the game more engaging	Implement lock feature with decorator pattern	**Christian Slothouber**, Matthijs Rijm, Earth Grob	4	9	Yes	Had to refactor from strategy pattern to decorator pattern. and a lot of unexpected complications occurred
As a developer I want to have locks on rails to make the game more engaging	Implement directional track with decorator pattern	**Matthijs Rijm**, Bas Musters	4	4	No	Initial version is finished just not merged yet.

Main Problems Encountered

Problem 1

Description: Christian needed more time for his additions this sprint than expected. Due to this he could not finish the scoring feature.

Reaction: The scoring feature was postponed to the next sprint.

Problem 2

Description: Estimation of the design pattern was not correct, as it took almost twice as long to implement the two design patterns into the game.

Reaction:
The administrative work (creating of UML and Sequence Diagram) was just partially done.

Adjustments for the next sprint

The regular adjustments at this point:
- The time estimation needs to improve.
- Do not plan more to be done in one sprint than that can actually be completed given the timespan and time the team has.

Most importantly, we need to start working earlier on the sprint. This sprint the real activity started just at Thursday, which does not leave any margins.