

Code Review

Main:

Pros:

- Nicely commented
- In javadocs there is mistakes but overall is everything nice
- Project file structure was quite clean with the exception of resources folder.
- Logic was separated from the UI and CLI
- All queries to the database were in DatabaseController

Cons:

- Method createStage in class LaserMazeUI javadoc has wrong exception in @throws. Exception with that name doesn't exist
- Method createRoot in class LaserMazeUI javadoc says that there is stageName parameter. But there isn't
- In javadoc a lot of @params doesn't have description
- PCLogic class while loop is unbreakable. Right now it must throw exception to break loop
- Password is stored in programs code and in plain text. No encryption at all
- Resource folder could use some tidying.
- Don't catch an exception just to print it out. Fix it in the catch block or throw new exception.

Other:

- Communicator has some unused methods
- Some variables should be private instead of public. It's a good practice to keep variables as private as possible.
- Some methods Could be replaced with lambdas
- Some hashmaps could be hashsets.

Tests:

Pros:

- PCLogicTests passed

Cons:

- GameMasterViewTests fails if there is no arduino and camera. Maybe mock some of the methods?
- 2 useless empty classes.
- In resources there is an empty file
- Can't test without arduino

Conclusion: We tried really hard to find as many mistakes as we could, but as you can see most that we brought up are only minor mistakes. Overallly the code was really well written.

Installation test

No installation guide in repository. But Lasermaze team helped us to install it at the meeting and provided us with required hardware.

1. Cloned the source code from their repository.
2. Because they used Java JDK 10 we had to download that. This version is not supported by Oracle anymore so we had to create Oracle account to get this specific version.
3. Then we could build the application. Everything went smoothly.
4. We could start the application easily with one cmd command.

Overall installation process was really easy.

Acceptance test

We had to reopen the app after almost every test due to a bug

UC 1 - Naming is missing from the usecase //Last moment modification

UC 2 - works as expected

UC 3 - works as expected

UC 4 - works as expected

UC 5 - works as expected

UC 6 - started but game stopped right after

UC 7 - works as expected

UC 8 - works as expected

UC 9 - works as expected

UC 10 - works, kinda similar to UC 9

UC 11 - works as expected

UC 12 - works as expected

UC 13 - works as expected

UC 14 - works as expected

UC 15 - works as expected

UC 16 - works, on some conditions also works without having to save

UC 17 - works as expected

UC 18 - works as expected

UC 19 - works as expected

UC 20 - works as expected

game froze around here

UC 21 - works as expected

UC 22 - works, it might be a duplicate

UC 23 - works as expected

UC 24 - works as expected

UC 25 - works as expected

UC 26 - works as expected

UC 27 - works as expected

UC 28 - works as expected

UC 29 - works as expected

Comments to Use Cases: many use cases were very similar to each other and it was quite cumbersome to test the same thing many times. Overall they were very detailed oriented.

Bugs

Bugs when No arduino, no camera

- Game frozed after some time, Can't enter name, Can't close GameMasterView
- Can't close GameMasterView. Needed to kill the process
- Clicked and pressed random buttons on my keyboard, mouse and this happened ->
- If you don't have arduino and you have label "Ei saa ühendust arduinoga!" on screen and you can insert password. After inserting right password. label "Ei saa ühendust arduinoga!" is gone and you can access GameMasterView



Other notes

- Camera view area is weirdly placed(not in centre)
- If you run the game without camera there is ugly black square almost in the middle of the screen. At least it should be exactly in the middle of the screen. Picture ->
- Label "Ei saa ühendust Arduino!" is not in the centre
- Some might not understand what "Trahv" means in the leaderboards
- UI scaling needs work for extra large and small screens



just a tip: If you are using IntelliJ. Then it's really easy to make code look nice by pressing ctrl + alt + L