Contributions Report

Individual Contribution Breakdown – this section describes each individual team member's contribution, as written by the individual themselves.

ROWAN ALDEAN (973765)

We began by implementing the abstract classes of which I created and worked alongside Tomas. Then we began implementing the hierarchy as proposed in our design of A1. In Week 4 when the code in my opinion become more complex than its purpose, I took the decision to remove my self from any direct class creation/programming in order to reduce time wasted resolving conflicts and fixing implementation. I worked on bug fixes, changes to existing classes, styling of the game and altering files as necessary. This meant mostly integrating existing backend work (albeit not writing fresh code) and altering fxml and front end display to suit well. I also filmed, cut, and edited the final video submission – my time was split 30:70 code to non-code tasks, with a large portion spent in the final week making the video as clear as possible and aiding Tomas' with fixes/adjustments wherever and whenever possible (many 4am nights).

TIAN BOGDAN MIHAI (976188)

I designed and implemented the entirety of the graphics and front end predominantly alone, I helped integrate Jordan's timer and testing smooth movement before ultimately not having time to implement in the final product (it's still in dev branch). In Week 4 I worked as allocated on menu design and any new fxml such as Message Of The Day mean whilst adjusting and refining my code for clarity so it can be easily worked with and understood by Tomas and Rowan – I worked somewhat on integrating the frontend and backend as said with Jordan's timer. The remainder of my time was spent on bug fixes and requested changes to any code produced.

MRUDULA HIRIMAGALUR (991322)

Unfortunately throught the assignment, I haven't been able to contribute as much as I had hoped due to extenuating circumstances, highlighted to my team and academic mentor. I was assigned Leaderboard in Week 2 and struggled so this task was taken on by Rowan and refined ultimately by Tomas. The following week I was allocated designing of graphics for avatars (a proposed extra feature) and was left to produce and cut audio for video produced by Rowan. I feel like we did our best as a team despite the obstacles, one being my lack of contribution and at times debating over contribution. In the end a superb program was created, which was our aim.

TOMAS SVEJNOHA (987451)

A typical group project. Stress a lot of the time. Mainly as a result of no/low contribution from Mrudula and Jordan. This I believe is a case of Mrudula not delivering assigned tasks and false promising and Jordan – for lack of a better term – just being lazy.

I wrote and debugged most of the game engine (objects, collisions, interactions, enemy behaviours), data providers (ProfileManager, LevelManager, Leaderboard), and created sample data wherever applicable. I then in Week 4 integrated and developed the backend worked on in the former weeks of the assignment by Rowan, Amy, and I with the frontend Mihai had written.

JORDAN PRICE (986654)

I contributed to the Message Of The Day and the reading/decoding from the webpage given to us. I completed this in the first week but for the remainder of the second week sadly did not have the time to contribute directly. For the 3rd week I was allocated some Cell classes to implement from our hierarchy and I passed some of this responsibility to Amy. In Week 4 I created a timer for the game and left Mihai and Rowan to integrate and make the timer implementation useful.

AMY MASON (986832)

At the start of this project I was responsible for creating the basics for the Key Door and Token Door classes and the Door superclass they inherit from. This was extended to Fire and Water classes as Jordan did not manage to write them as part of the Cells he was allocated. In Week 3 I worked on the straight walking carrot enemy and added methods for Token and Key door and the corresponding super class. I also worked alongside Sharifah creating Doors, Water, Fire, and Wall cells. In Week 4 I designed several levels for the game and contributed with Tomas to the completion of the parser for level files. I helped check Javadoc and was the group Secretary for meetings.

SHARIFAH AL-ZUMAYA (935106)

In terms of challenges, I have faced a huge difficulty with GitHub because it is the first time for me to use such an environment. Tomas and Rowan helped me a lot to understand it, they sent me some online tutorials and links for using GitHub. In terms of the game project, I began contributing to some methods in the level class but this was deemed not ideal and wasn't used in the final implementation. I then was allocated and focused on drawing graphics for the game. I made use of several software tools to help get the best result such as Paint.net, Piskel, and Photoshop. I designed the visuals for keyDoor, greenDoor, redDoor, flippers, and token. I then designed different angles of Mr hot dog, Mr egg, Mr pickle. After that, I was assigned to draw the chef because he is the main character in the game (this took a while) with all angles and 16 animations followed by design of five buttons in different colors and two sizes. Finally in the latter half of Week 4, I designed two different backgrounds, one of which was used in the final implementation.

Changes from design to implementation:

We did not have any major changes from the conceptual design to implementation besides those which are Java specific for example using *Platform.runLater* and/or using *Timer* objects etc. The overall design and hierarchy of our A1 document remained consistent and related in almost every way.

Successes and Setbacks

Successes – We achieved every core feature and the basis for some extra features through a strong effort and focus on graphics, visuals, and back-end programming. Tomas' worked hard on making these elements work in a cohesive way being that the design is very influenced by his experience/understanding of similar C based projects. Our program executes and runs very smoothly and as a team we managed to successfully produce somewhat flawless implementation albeit lacking the contribution of different members. This ability to adjust and settle into our unofficial roles meant we could focus on the end goal. The group as a core kept focused and delivered beyond standard and on time – this in itself given the lack of any compiled or functional code in Week 2 is a tremendous success.

Setbacks – The code became very tangled and difficult to visualise due to added complexity in the name of future proofing. Design wise it seemed safe but it became apparent it meant many hours of implementation to achieve core functionality albeit perhaps future-proofing the program to any changes. Rowan and Mihai decided it best not to work on the low hierarchy and back-end code actively in Week 4 given that core functionality would be best implemented and integrated by Tomas whom had a clearer picture of the program. Ultimately the abundance of abstract classes and design did mean a strong frame for the program but meant stress on the team and particularly on meeting a deadline. In future we would implement a less hierarchical design meaning roll-out could be done much quicker with a team where not all are competent in Java – any changes could be handled in releases and bug fixes.

Contribution was a large setback and in future we would agree on a penalty for lack of communication and perhaps an in-house system for contribution per task based on its difficulty as some members believed all contribution is equal despite the complexity and time requirement of each task differing. Consequently as a result of all the contribution debates and inequalities we must now improve on our time and team management.