

**COMP30050**

**Software Engineering Project**

**Interim Report**

**“A creative variant on an old reliable”**

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**Introduction**

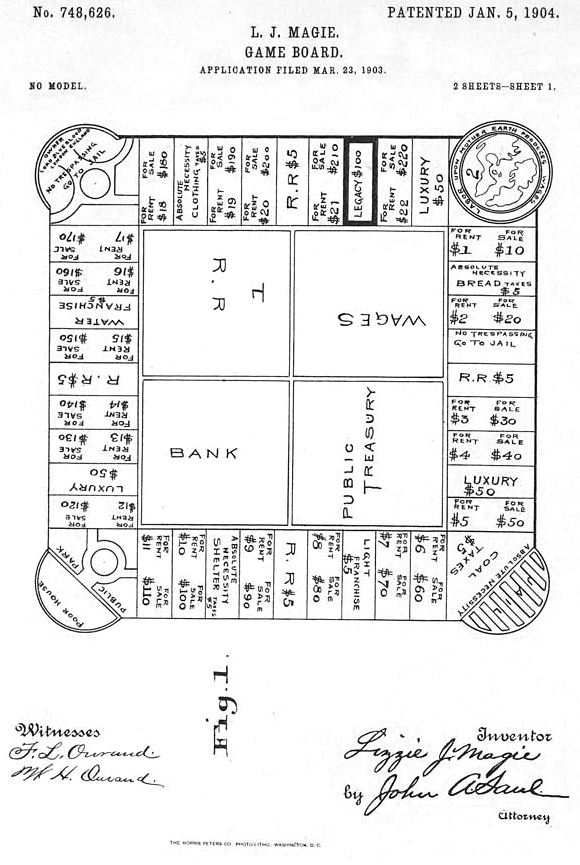
**“Competition is always a good thing. It forces us to do our best. A monopoly renders people complacent and satisfied with mediocrity.” - *Nancy Pearcey***

Monopoly is a game where players roll two six-sided dice to move around the game board buying and trading properties, and develop them with houses and hotels. Players can collect rent from their opponents, with the aim of the game being driving said opponents into bankruptcy. The game has numerous house rules and multiple editions exist; Monopoly has since become a part of international pop culture, having been “locally licensed in more than 103 countries and printed in more than thirty-seven languages.”[1]

The history of Monopoly can be traced back to 1903, when American anti-monopolist Elizabeth Magie designed a game in the hopes of explaining the evils of capitalism through a focus of the detrimental effects of concentrating land in private monopolies, as well as the single tax theory of Henry George. Magie’s original version, pictured overleaf, was originally billed as ‘*The Landlord’s Game’* was self-published, beginning in 1906.

According to an interview in 1902 by the Single Tax Review, Magie stated that her idea is “a practical demonstration of the present system of land-grabbing with all it’s usual outcomes and consequences. It might well have been called the ‘Game of Life’, as it contains all the elements of success and failure in the real world, and the object is the same as the human race in general seems to have i.e., the accumulation of wealth.”[2]

It is interesting to note that her role as the game’s inventor was not discovered until 1973, when Ralph Anspach, an economics professor, uncovered Magie’s patents during a decade long legal battle with Parker Brothers over his own creation of an Anti-Monopoly game.[3]



**Hypothesis**

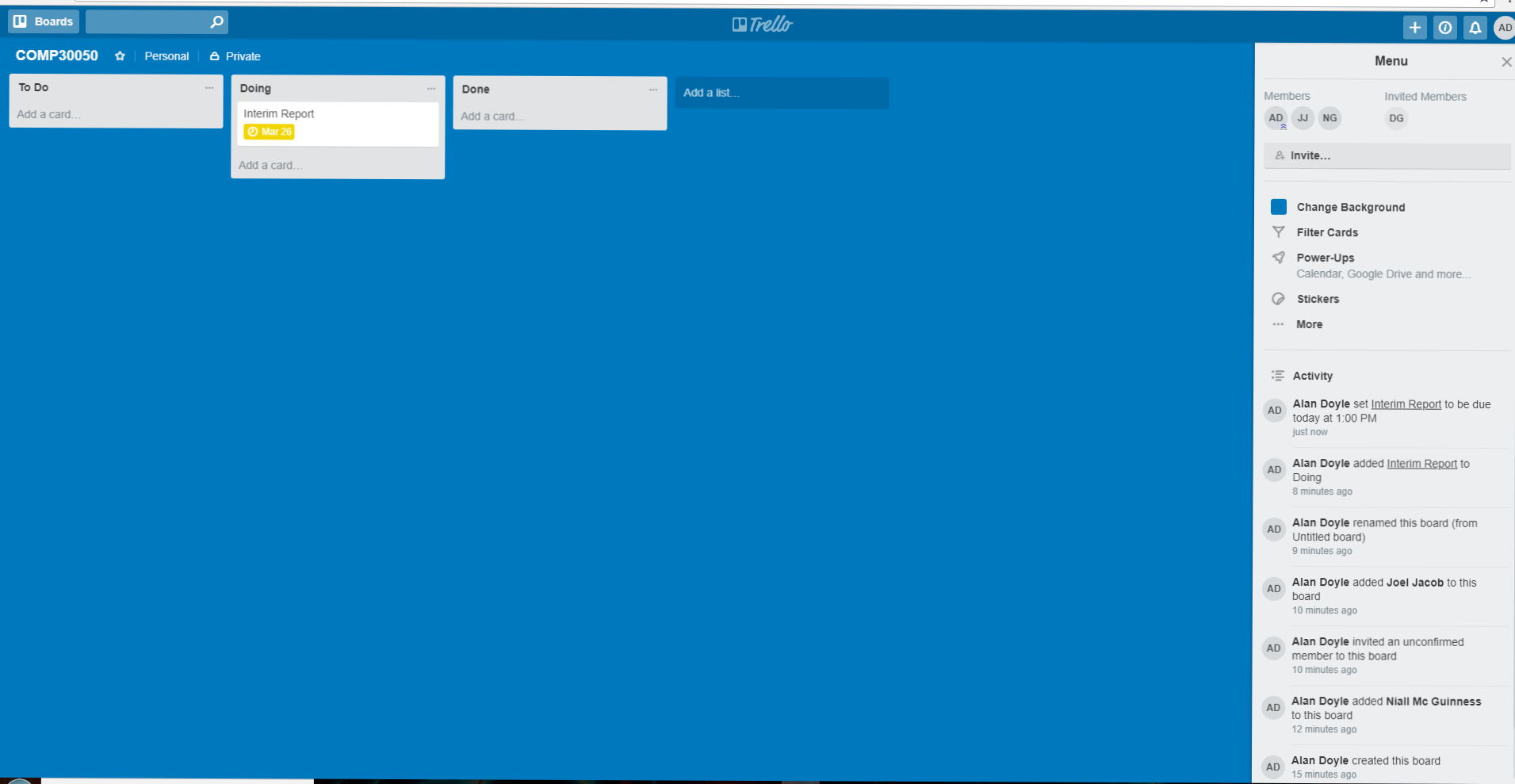
Our primary focus upon taking the COMP30050 - Software Engineering Project 3 module was that our work and preparation in the first few weeks of the semester would be leading towards a final goal of creating our very own replication of Monopoly. This would be done through the Java Programming language, of which all of us had some degree of experience and aptitude. With varying levels of competence, it would indeed be a challenge, yet a challenge we were all more than ready for. Under direction from our lecturer, Tony Veale, we were given an idea of what exactly was expected of us over the course of this project. Using one of Tony’s extensive databases’ of pop culture references, we were to dynamically generate content over-laying our version of Monopoly. This would ensue the player(s) would have a unique experience each and every time they played, thus alluding to the name of ‘interdimensional panopoly’. Our challenge lay in the balancing of the core features and logic of the regular Monopoly, with the individual features we would choose to add in order to make our version stand out, and above all, offer a unique and exciting experience to any and all players. To achieve all of this and more, we knew we had to work together - and so, a Facebook group was created to keep in touch, and a GitHub repo was set up to keep track of our project; Alan uploaded the interim to this repo so the team could use it for quick reference when needed. We also set up a Trello board so as to keep an eye on our progress and ensure we stayed true to our goals, and so we could stay on top of our work.

**Planning**

As a team it was vital to the whole process of designing the project to meet regularly and to continue to think outside the box and come up with ideas and various techniques that we could use for our project to put that unique twist to the game of Monopoly. The meetings were also valuable as we could then continue to build upon these and continue to make progress.

Through a series of meetings, we decided on the following steps:

* By comparing results and comments given by the tutors, we would choose the best project from the group as the foundation of our Monopoly game in order to have maximum success with our finished game.
* We ascertained our individual strengths and decided where these could be applied to different aspects of the project thus deciding the areas that each member of the team would work on. We also divided the workload evenly in terms of the interim report, giving each member of the team sections to write out.
* As a team, we decided to select the theme for our board based on the additional features and add-ons that we want to add to our gameplay.
* Since we got together as a team, we slowly started to piece together how we wanted to present our Monopoly in terms of the theme, the additional features and also various other add-ons that we wanted to add to our game and to the user’s gameplay that would highlight our ideas, but also retain the core values and experience of the original.
* We decided on our preferred work cycle, which would be to adhere to sprints according to Trello and weekly meetings to complete each task assigned to us by Tony every week, so as to maximise efficiency.
* We and set soft deadlines for the team to ensure that the work for each stage of the project would be finished, so that we could look at the work that was done and to maximise creativity.
* During this time, we also decided that, through our own initiative, that we would do more research into previous Monopoly-related game builds in order to have a greater understanding on how previous versions were built.

*This screenshot shows our Trello board in preparation for our undertaking of this project.*

**Design**

The basis of our game will be the traditional version of Monopoly with additional features and game mechanics being built in on top of it, and will allow between 2 and 8 players.

The game is going to be built using the Java programming language with GitHub being used for collaboration and version control. Also, we have been provided with access to a vast database of pop culture references which includes information about various characters, vehicles, items and settings taken from well-known movies, television shows and novels.

The game will make use of this database by accessing the information it contains and using it in the creation of the game board. For example, all of the properties on the board will be named after famous fictional locations. The property names will be randomly selected from the database at the start of the game, so that the game board will appear differently every time the game is played.

Other aspects of the game, such as the Chance and Community Chest cards, will similarly be randomly generated at the start of a game based on information provided by the database. This will ensure that our version of Monopoly will still feel fresh and unique even after multiple playthroughs, as no two games will be entirely alike.

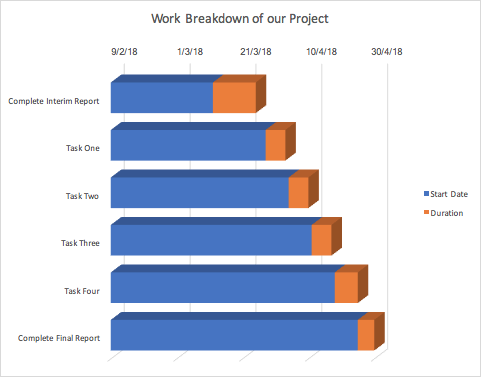
We envisioned potential technical challenges, so we will endeavour to keep our version of Monopoly simple where possible, so as to minimise any future problems we may run into. This will be done concurrent to how we implement our desired design in making our version stand out as well as staying strong and true to the core ideas of the game.

**Proposed Game Features**

* The game will comprise a lobby of between 2-8 players.
* The game will contain a unique theme, that will contain pop culture references, such as famous movies, tv shows, or locations. This means that each reference on the board will be titled differently from a conventional Monopoly board.
* From the provided database, we decided to skin the various tiles of the game board in accordance with to the current theme, thus retaining consistency throughout.
* Players will be able to choose from a wide variety of characters from the selected cinematic/tv show universe as their game token.
* When a player lands on a tile resulting in a Chance card or a Community Chest, a window will appear on the player’s screen displaying information to the user, as well an option for the player to pick to progress, if applicable.
* When a player lands in jail, there will be sound effects of a police siren and sounds of handcuffs to further bring a unique experience of the player, getting them to immerse themselves in the game.
* When players go past the Go sign, the sound of a cash register will play in the background.
* We plan to implement an AI feature should additional players be needed to play the game, this is to ensure that the player will face a challenge when playing the game.

**Gantt Chart**

*The gantt chart below represents the deadlines we gave ourselves, so as to stay on top of our project and keep ourselves working efficiently throughout.*



**Conclusion**

Through our experience with the Java Programming Language, and with the help and guidance from Tony and his lectures, we have presented and shown the approach we intend to take in this report. The first step would require choosing a foundation to build on, which will result in selecting the project which has received the best grades out of the four of our team members, as this will ensure in us receiving the best possible score.

We will also be assigning specific tasks to team members who are more suited to that role, therefore ensuring success in each aspect of our game, and also conserving less time. There will also be time allotted each week to focus on the final report, so that we can have a rough template set-up and therefore continuing to tinker with our report as each task is completed. Following the timeline as shown in our Gantt Chart, we would attempt to apply all the resources we have in hand to implement our ideas onto the Monopoly project.

Once we have a working model of a Monopoly game, we intend to choose one of the many ample choices of pop-culture references from Dr Veale to create a unique theme to our game, in the same way as Hasbro does on their current lineup of the famous board-game. As challenging as the project is set out to be, we intend to have a wonderful, working, computerised model of a classic board game, a creative variant on an old reliable.

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References

1. <https://en.wikipedia.org/wiki/Monopoly_(game)>
2. <http://lvtfan.typepad.com/lvtfans_blog/2011/01/lizzie-magie-1902-commentary-the-landlords-game.html>
3. <https://www.nytimes.com/2015/02/15/business/behind-monopoly-an-inventor-who-didnt-pass-go.html>