School of Computer Science and Engineering

COMP3900 Computer Science Project, 22T2

Retrospective A

Movie Finder System: Movie Monster

F16A G2 - Impregnable

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Table of Contents

0. Background

0.1. Retrospective A Meeting Details

Date	Sunday 03.07.22
Time	5:00 pm - 6:30 pm AEST
Attendees	Damon, Joyce, Matt, Owen, Tam
Apologies	None

Meeting Agendas	1. Identify topics for analysis
	    ○ whole-group meeting
	    ○ individual standups
	    ○ frontend preparations
	    ○ frontend work division
	    ○ backend preparations
	    ○ backend development
	
	For each identified topic in (1) above,
	
	2. discuss what went well, if any.
	3. discuss what didn't go well if any.
	4. discuss any potential improvements and things to try for sprint 2.
	5. assign member(s) to track the goal accordingly, and propose both qualitative and quantitative ways in which the effectiveness of the goal can be measured and reflected upon.

0.2. Legend

✅ - What went well

❌ - What didn't go well

📈 - Improvement for sprint 2

🙋🙋 - Person assigned for enforcing and tracking goal

1. General

1.1. Meetings

✅ Weekly meetings conducted in weeks 1 and 2 with everyone present were productive as this allowed the group to formulate user stories and discuss their acceptance criteria, as well as produce a common interface between the frontend and backend.

❌ However, the meetings became less productive in later weeks as discussions between the frontend and backend developers often do not overlap, resulting in a bloated meeting with excess information being shared with everyone present. Some meetings also lacked a clear purpose due to a lack of agendas to discuss.

📈 For sprint 2, we plan to change the dynamic of our meetings by
1. Only have a large meeting with all members present once a week to discuss the interactions between the frontend and backend.
2. For shorter or more specific meetings and pair programming, this should be conducted with only the relevant members (e.g. frontend developers, backend developers, or one of the groups mentioned with the scrum master).
3. Each major meeting (with everyone present) will have agendas proposed beforehand to ensure that we are time-efficient and have a clear goal to discuss each time.

🙋‍♀️ One of our frontend developers, Tam (Khiet Tam Nguyen, z5313514) will be tasked with scheduling these major meetings on Microsoft Teams and proposing the agendas and sharing them with the group. The duration and quantity of meetings will measure the effectiveness of this strategy compared to sprint one if an improvement has been made by introducing a clear agenda to only the relevant members present. We expect the number of meetings to increase, but the overall duration to decrease as a result of increased efficiency.

1.2. Standups

✅ Having weekly standups in the middle of each week (Wednesday night), where everyone writes a sentence about what they have achieved and plans to achieve by the end of the week ensures that we meet our set deadlines and stay on task.

❌ However, the frequency of our standups was limited and was not always effective in enforcing the self-proposed deadlines that we have set for each other. This was evident in our submission of the proposal, where the first submission was incomplete due to miscommunication and required a resubmission (while still on time) with the additional parts added in.

📈 Moving forward, we plan to increase the frequency of our standups to three days a week, on Monday, Wednesday and Saturday. Our aim is to increase the group's awareness of issues early and tackle them more quickly and efficiently throughout the week.

🙋 To ensure this goal is met, we will assign Joyce (Zhaoyan Liu, z5271698) to track everyone's progress with their goals and achievements for each week. The effectiveness of this goal will be measured by observing Slack's analytics to see if the communications and frequency on our "standup" channel have increased, as well as recording the ratio between tasks that were completed on time as well as tasks that were delayed past their set due date.

2. Frontend

2.1. Preparations

✅ Research and preparation on the React framework before starting the course helped to save a lot of time for our frontend developers. This allowed both Tam and Owen (the frontend developers) to remain on the same page.

❌ What we did not anticipate before writing our proposal and sprint 1 was our eventual reliance and use of additional tools such as Typescript and Redux. This required additional research and experience in order to fully utilise these tools, resulting in some deadlines being pushed back and issues that were difficult to resolve in a timely manner.

📈 In sprint 2, we plan to invest more time in identifying the frontend tools that we will need to successfully satisfy the user stories and requirements in-store. With the flexibility of week 6, our frontend developers will be able to acquire the necessary skills to achieve this - for example, we plan to incorporate Google's Firebase in sprint 2 to help with tracking analytics, although this is still a topic for discussion.

🙋 The task of finding and narrowing down the tools we need will be allocated to Owen (Xunbo Su, z5285996). The effectiveness of this strategy will be measured by the recorded time of frontend developers in searching for tools/techniques online in comparison to solving the issue at hand, where measurements will be totalled on a weekly basis.

2.2. Work Division

✅ In sprint 1, Our frontend developers Tam (Khiet Tam Nguyen, z5313514) and Owen (Xunbo Su, z5285996) took part in both managing data flow and designing the user interface. This had its merits in that we can participate in pair-programming and discuss the layout and storage needed in the initial stages of development.

❌ However, this became difficult to manage in the latter half of sprint 1, where we faced issues such as merge conflicts and our lack of experience in each other's field - for example, Owen has worked with the Redux framework before which Tam is unfamiliar with, and the converse is true for Bootstrap and Material UI.

📈 Moving forward, we plan to divide the work in a way that allows our strong points to be emphasised, i.e. through specialisation, rather than the "one person per feature" approach that we have grown accustomed to.

🙋 As such, Owen (Xunbo Su, z5285996) will be tasked with managing the data flow and the interaction between the frontend and backend, whereas 🙋 Tam will be assigned the layout and the interaction between the frontend and our end users. Similar to previous goals, we will quantitatively track this goal by measuring the total working time. In addition, we will also analyse the number of commits and lines of codes *changed* from the frontend perspective in our Github repository.

3. Backend

3.1 Preparations

✅ We did a lot of research and preparation about Java Springboot during Sprint 1. This architecture saves us time to develop the whole MVC model by ourselves. Also, this structure gives the backend a standard interface so that all team members will keep on the same page, which successfully lowers the communication cost within the team. Moreover, we evaluate the workload beforehand and divide a task into smaller tasks so that we can have a clear gauge of the process of one task. Once we have a set of smaller tasks, we assign tasks to different people according to their abilities.

❌ For the database connection (Mongodb) with the backend, Joyce (Zhaoyan Liu, z5271698) and Matt (Feng Ji, z5290365) did the same work but ended up using only one person's method, which led to the other person wasting time. In the data collection, we did not get a lot of data, we only got data for 100 movies, which is not enough.

📈 We need to improve communication with each other and when a task is assigned to two people, don't do each one separately, make sure communication is in place. Try to make one person responsible for the task. Secondly, collect more movie data to prepare for the next recommendation system training.

🙋 To ensure that the backend team is well prepared and can focus on solving problems rather than looking for tools online, Matt (Feng Ji, z5290365) will be responsible for conducting research on the techniques required to accomplish and satisfy the user stories in sprint 2. Matt will also enforce good git practices such as descriptive and specific commit or merge messages, short and regular merge requests and ensuring that the completed backend work is correctly reflected on the frontend. One method to measure the effectiveness of this goal is the number of successful, non-conflicting merge requests in comparison to sprint 1.

3.2 Development

✅ We have successfully established a connection between the backend and frontend, and we finished all user stories successfully.

❌ In our implementation of the search movie feature, the problem of ignoring upper and lower case in regular expressions has never been solved. It's also the same two members (Joyce and Matt) who both think this is the other's task, resulting in no one addressing the issue. We have attributed the cause to
- not writing a reasonable number of tests and putting the test pressure on front-end testing.
- writing our code in one branch - each member should write their code in a different branch

📈 In the following sprint, we plan to set clear goals for every team member so that we won't end up reinventing the wheels.
- We plan to try to use the agile development strategy in a daily meeting to share information with others, like what we did you do yesterday, what will I do today and did I need help?
- Backend should take the responsibility to test the functionality before the front and backend union tests.

🙋 Damon (ShengYue Guan, z5285984), our scrum master and backend developer, will be responsible for holding a daily meeting and also using the agile development strategy in the meeting. He will also ensure that, at the end of the daily backend meeting, everyone has a clear and not intercepted task to do. The effectiveness of this strategy will be measured by meeting notes we have after every meeting so that everyone can see their to-do list on there.

🙋 Damon (ShengYue Guan, z5285984), 🙋Joyce (Zhaoyan Liu, z5271698), 🙋 Matt (Feng Ji, z5290365) should make sure their code works fine. The effectiveness of this strategy will be measured by checking if the response is identical to what's on the interface part.

🙋 Damon (ShengYue Guan, z5285984), 🙋Joyce (Zhaoyan Liu, z5271698), 🙋 Matt (Feng Ji, z5290365) should have their own branch to develop so that it won't mess with the main branch. The effectiveness of this strategy will be measured by checking the branch on Github.