
GROUP 3 PRESENTS
A SPACE DILEMMA
chrome

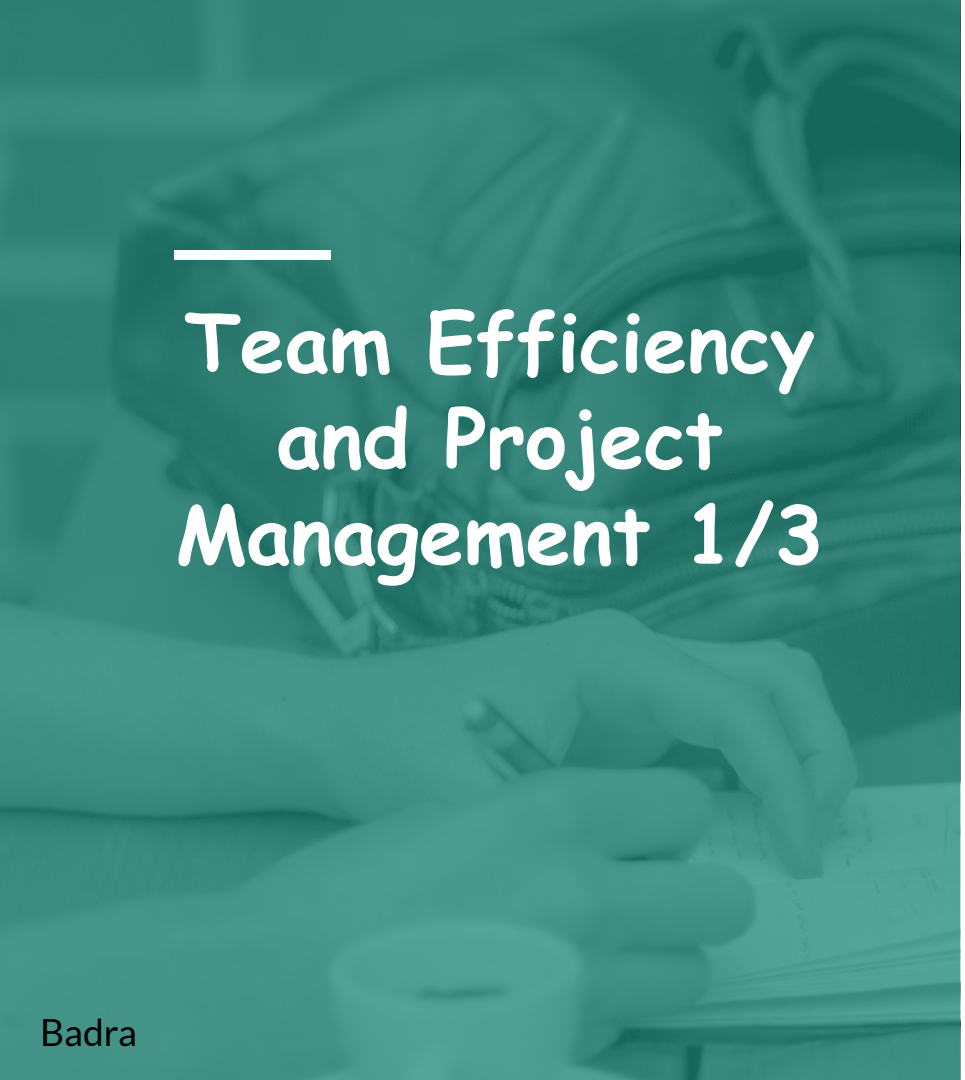
Content

- The Project
- Team efficiency and Project management
- Technology and Tools
- Advantages and Disadvantages of dedicating more time to Frontend
- Testing
- Team Reflection

The Project

- Our project was to create a text based adventure game. In our first group meeting we decided on the theme based on the interests of the group.
- Two team members liked escape rooms, and another like space. We then combined the two tmeses and created an adventure game where the player boards a spaceship where there are four problems to fix to complete the game.
- Using draw.io we created a draft diagram to see how it could work and factor in the journey of the users as well as discussing some of the backend development (which aspects we would randomise, using while loops to promt player to choose options etc).
- We then allocated roles and divided tasks according to ability.

Badra



Team Efficiency and Project Management 1/3

Badra

During this project we worked as a team sharing responsibilities and allowing everyone to contribute using their strengths for various tasks.

- **Lead Programmer - Colin**

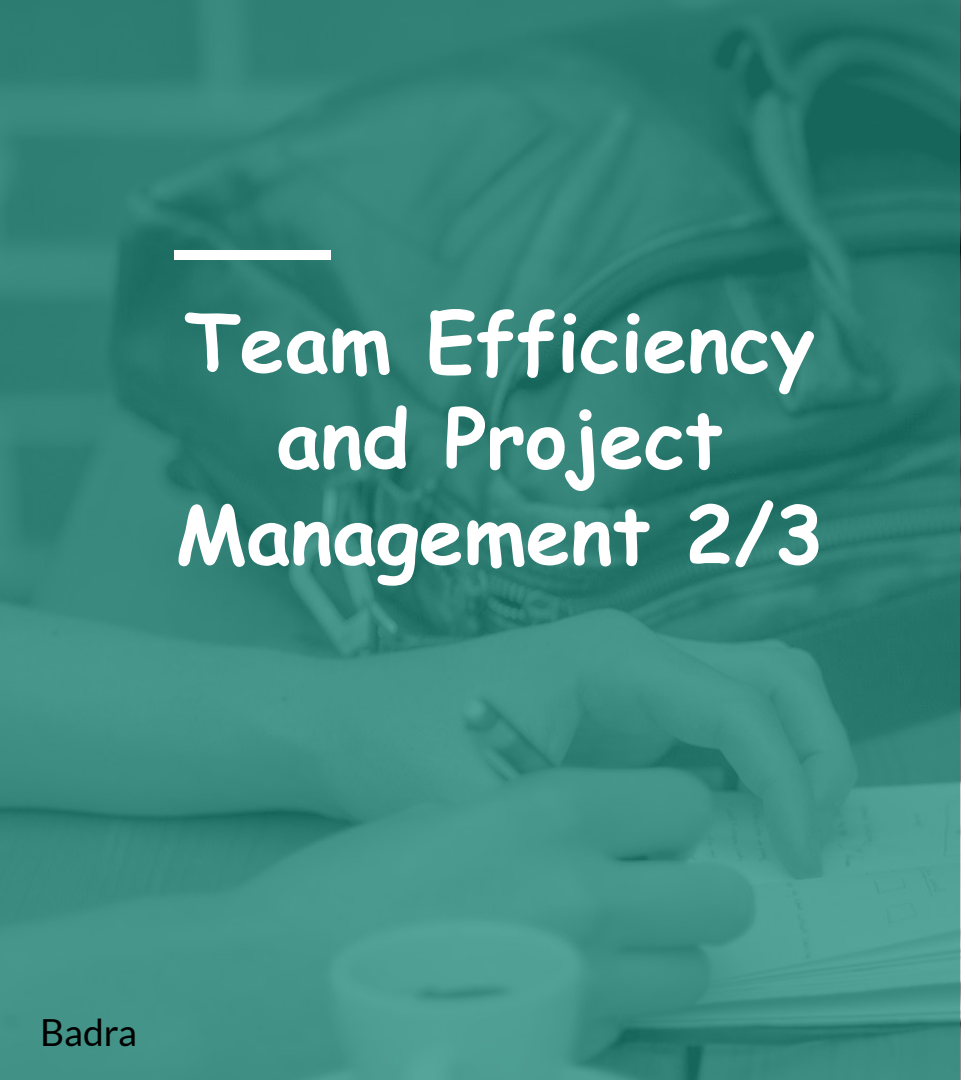
As our strongest coder, Colin was given the responsibility of overseeing coding.

- **Project Manager - Badra**

Badra was in charge allocating tasks on trello, the flow diagram and Google Drive.

- **Writer - Mikael**

Mikael was responsible for the premise and the storyline of the game. He provided the needed narrative elements that were used in the script.



Team Efficiency and Project Management 2/3

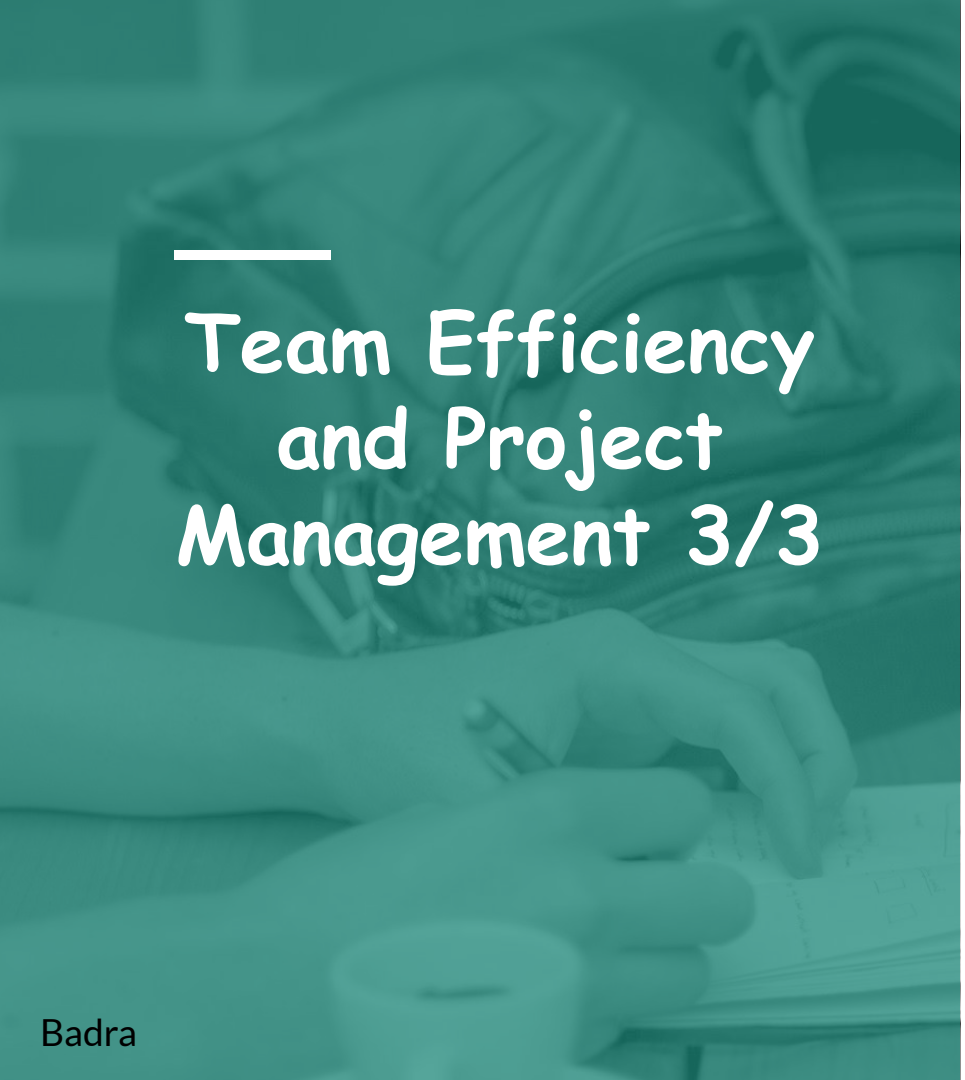
Badra

Trello - Kanban

- To manage this project, we utilised trello which uses the kanban method of “TO DO, DOING, DONE” to manage tasks and allocate it to different team members. This allowed us to not duplicate effort and to see cleary who was doing/needed to do what at each stage of the project.

Slack

- Slack was also used to ensure team efficiency, after completing tasks each member shared documents and findings. We also used slack group channel as our main communication.



Team Efficiency and Project Management 3/3

Badra

Stand-ups

- We tracked progress by having quick stand - ups throughout the day were each member reported their findings and we discussed the next step as a team. This allowed us to be effective and efficient with our time, resources and efforts.

Coding the Game

- For coding we used VS code. Colin, our most confident coder, created a pseudo code for the project. (the lead programmer)
- While Mikael and Badra focused on the four scenarios.
- We used functions for each scenario for easy transition to the next step of the game. Used a randomiser for initial game setup parameters. We also used while loops and if/else to allow the player choose different variables.
- OOP- Object Orientated Programming, Breaking things down to functional tasks.
- We all shared screens throughout the project and stayed on zoom or jitsu while working on independent tasks which made communication and asking for help when needed easier.

Colin

Technology and Tools 1/2

- Zoom / Jitsi - We initially started having meetings via Zoom, which was great because we were able to share screens easily and hold group discussions, however, because we did not have access to a premium account it kicked us out every 30 minutes. We then transitioned to using Jitsi. It has all the features of Zoom and we were able to have a room open through the day and team members could drop in/out. A disadvantage of jitsi was random people could join your room if you don't secure it.
- Slack and Trello - We used slack to communicate, share documents and code snippets, and used Trello to allocate tasks and track progress. These tools were helpful in allowing us to manage the project share workload in real time. However, when using slack it was sometimes difficult using the search function to find things. Our instructor also had access to both and was able to provide us with comments on adjustments and answer questions.

Overall it would be great in future projects to find a technology tool which combines the main features of the mentioned tools.

Mikael

Technology and Tools 2/2

- Google Drive

At the start of the project we used Google drive to keep and edit the flowchart. We then used it for the presentation. Each team member had access to the drive could make edits and provide support and help when needed.

- Draw.io

We used draw.io to design our flowchart and make improvements as the game design progressed.

- VS Code

VS Code was used for the coding of the game. It allowed us to features such as syntax highlighting, intelligent code completion, snippets and suggestions & support for debugging.

Mikael

Advantages of dedicating more time to Frontend

- More time dedicated to Frontend would mean we could focus on the user experience therefore making the game more interactive and ensuring user engagement.
- Using graphics, art and colour would make it feel more like a real game compared to it just being plain code and ran on a terminal.
- A finished game that functions and looks like the other games on the market will give us a commercial advantage and we can essentially package it and sell it.
- Opportunity to do more research, learn and develop new skills e.g using java and HTML

Disadvantages of dedicating more time to Frontend

- ➔ Although user experience is essential, it is important to balance the time spent on frontend and backend. You don't want to have a nice looking game but it has errors. Therefore the coding has to function.
- ➔ As we are a team new to coding, it would be time consuming as we would have to do more research, would require a lot more skill and learning than we can gain from a three week course.
- ➔ Requires learning new language such as java and HTML.

Testing Strategy 1/2

- From the development of the project game Flowchart, we created a pseudo-code structure to break code down into manageable functions / modules
- Each function / module could then be coded, run and tested independently using any parameters required and returning values / updated variables as required
- Once we were happy with the individual modules we could then "plug" them into an backbone structure for the game program and then test that they also work correctly within the main game program
- As and when we needed to we hd code walkthroughs to keep the team up to speed with regards how modules should be called / variable names / statuses to use and to look for

Colin

Testing Strategy 2/2

- This we deemed to be an OOP - Object Orientated Programming methodology, for only coding things once into modules, using the same data types and naming structures in a sort of plug-and-play approach.
- Once the main game program structure was populated with the individual working modules we then proceeded with end-to-end testing.
- Platforms used to share code between team members was the Slack channel
- We had group walk-throughs using the JIS link
- We referred back to the flowchart and pseudocode constantly to make sure that we keep on track and ensured that flowchart / pseudocode and coding were all in synch

Colin

Team Reflection

What Went Well?

- We effectively communicated with each other, constantly updating each other on progress from individual and team tasks.
- Had sample codes and walkthroughs to explain how the code for our game and the functions would work and what can be expected for the end product.
- If anyone had questions or concerns we analysed it as a group and reached a suitable resolution. Being supportive and understanding of each other's strengths and abilities was essential for us.
- Shared resources using the group 3 channel on Slack and Google Drive.
- Shared workload and responsibilities to avoid duplication of effort.
- Learned from each other and most importantly we had FUN!

Colin

Team Reflection

What could we improve on?

- Find a more efficient and reliable video chat source as we had issues with both Zoom and Jitsi.
- Refer back the Trello board more often and actually utilise the Kanban method (i.e doing tasks in a better sequence). This would also allow us to improve on time management and focus on not spending too long on one task.
- Spend more time on design first rather than the coding.
- Better management of key responsibilities regarding updating and editing group documents. (Trello, Flowchart, Code snippets, etc.)
- Manage real time updates better.
- For future projects, get an early and better understanding of each other's strengths and skills for allocation of tasks.

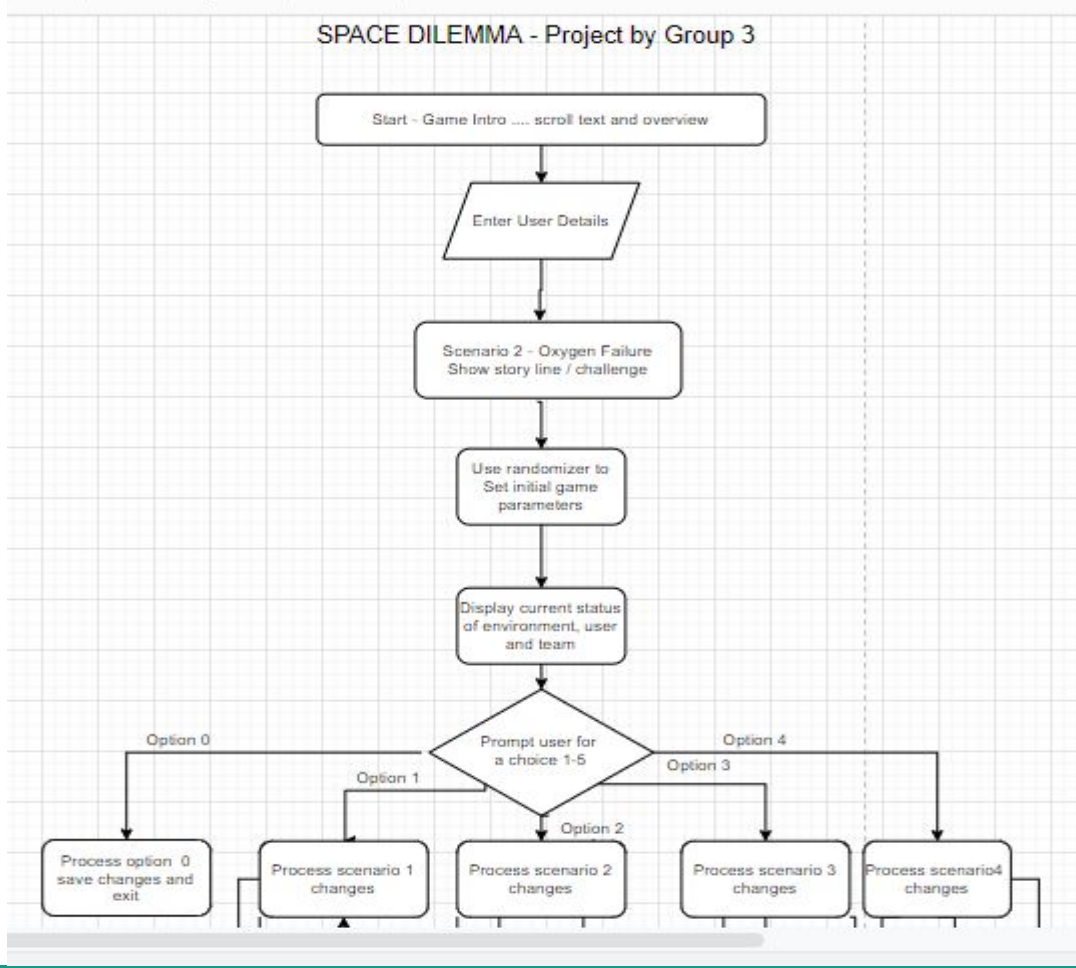
Mikael

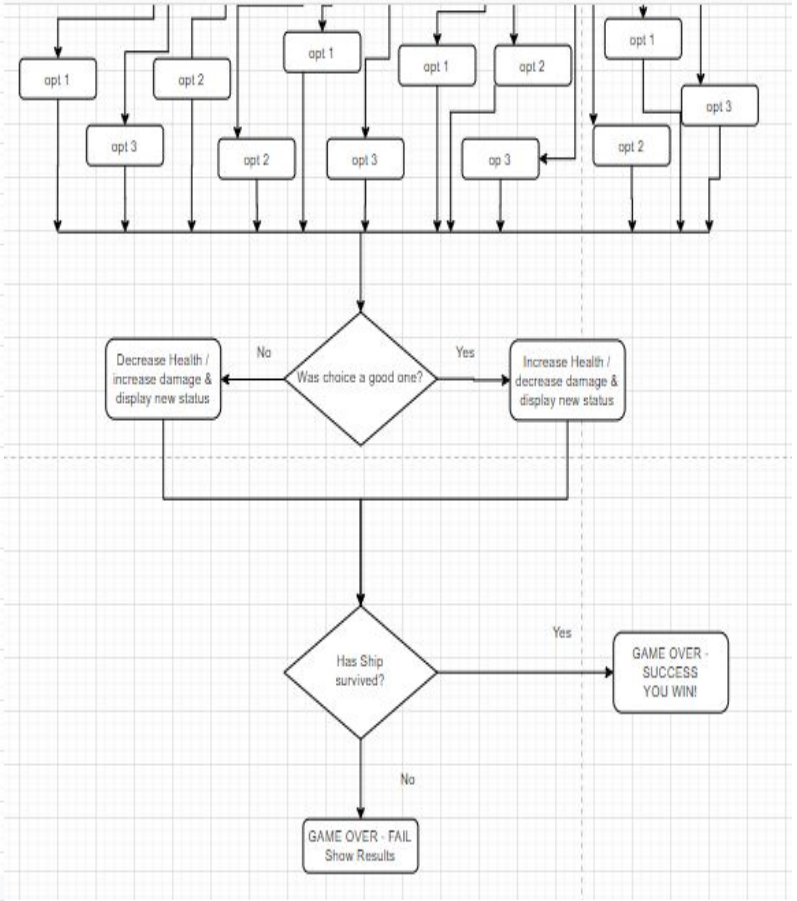
Team Reflection

How would the project be different if worked independently

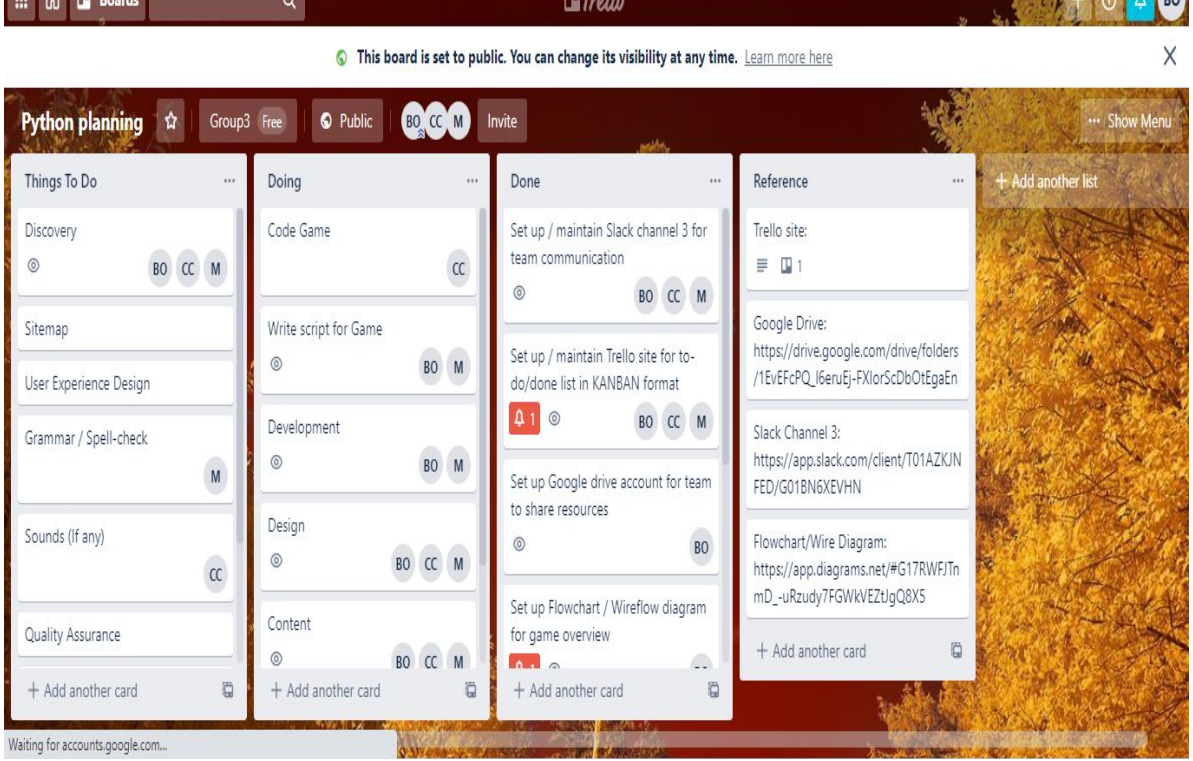
- Two heads are better than one in terms of skill division and knowledge contribution.
- Time consuming for one person as there are many tasks.
- Working alone requires no communication with team members therefore you can proceed at your own pace.
- No benefit of learning from other and sharing ideas.
- Working as an individual requires more research and finding resources which will give you the information you need. (such as W3schools.com and Pythontutor.com for solutions and resources.)

Badra



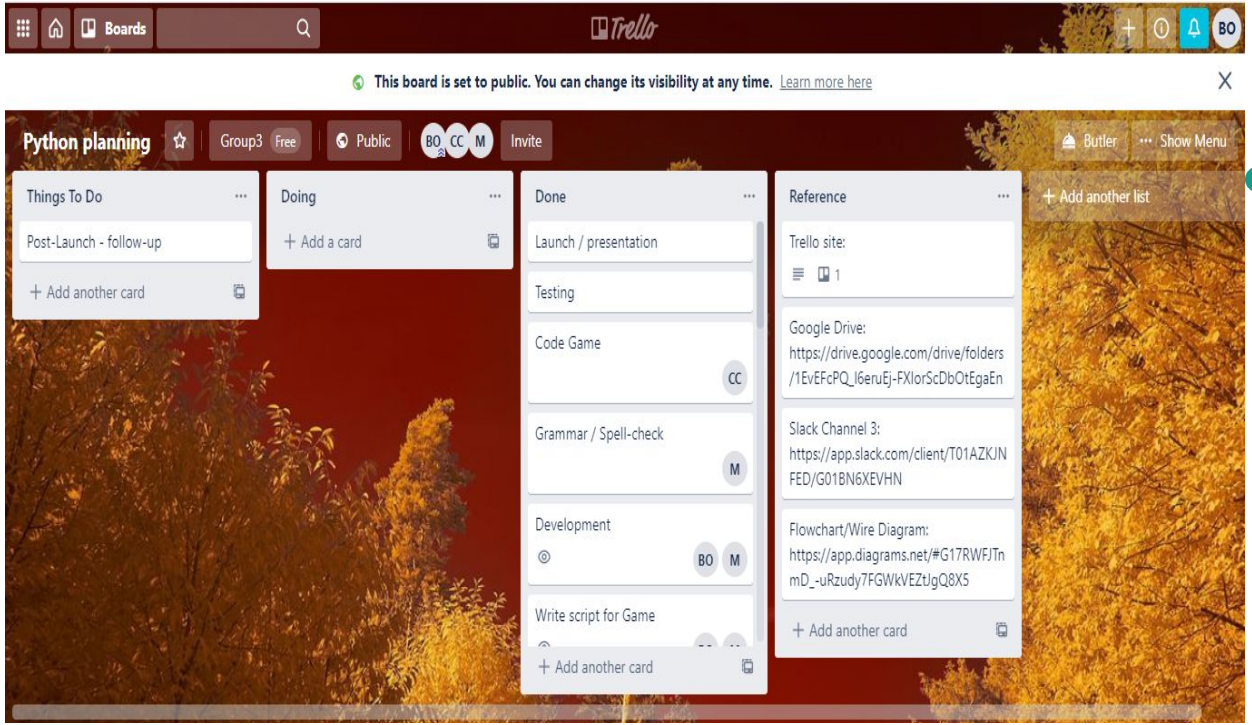


Game flowchart



Trello Board during our project

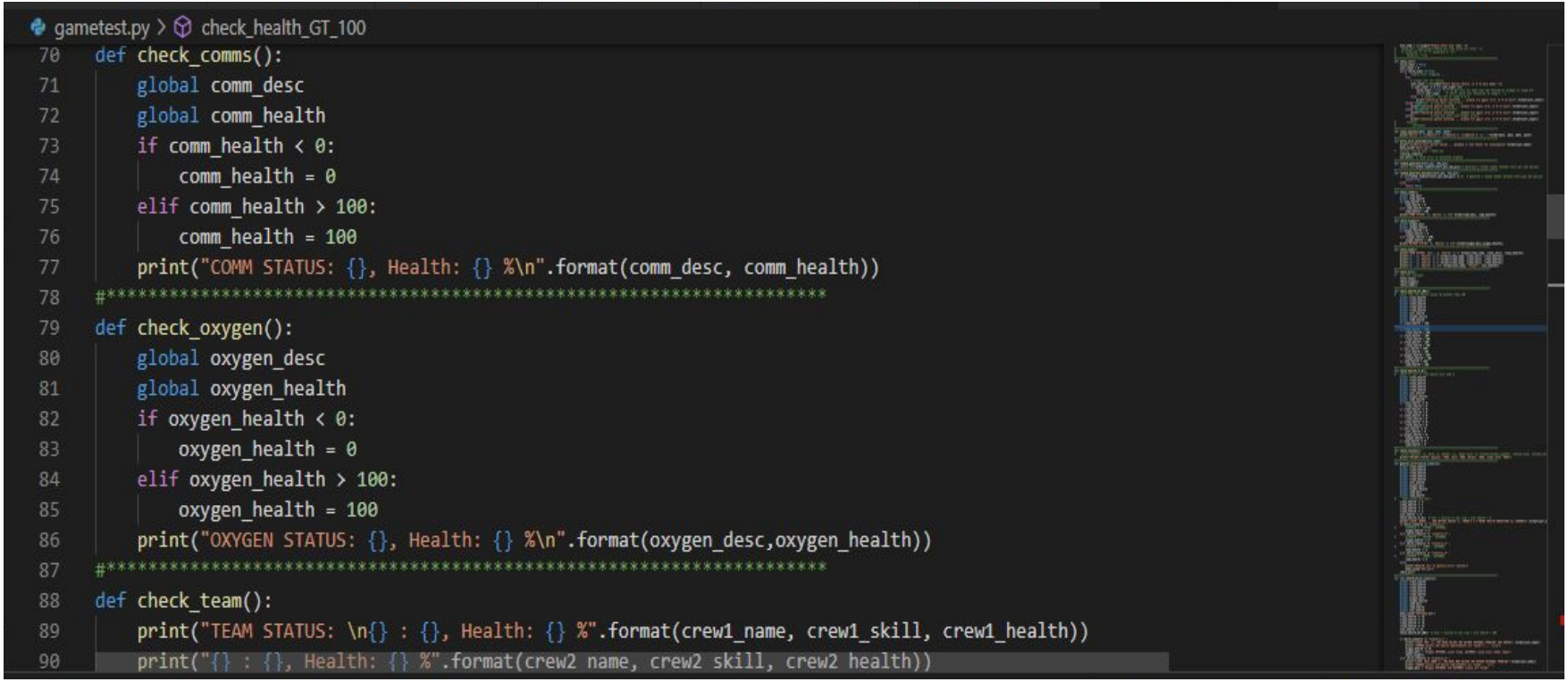
Screenshot 1 - Trello



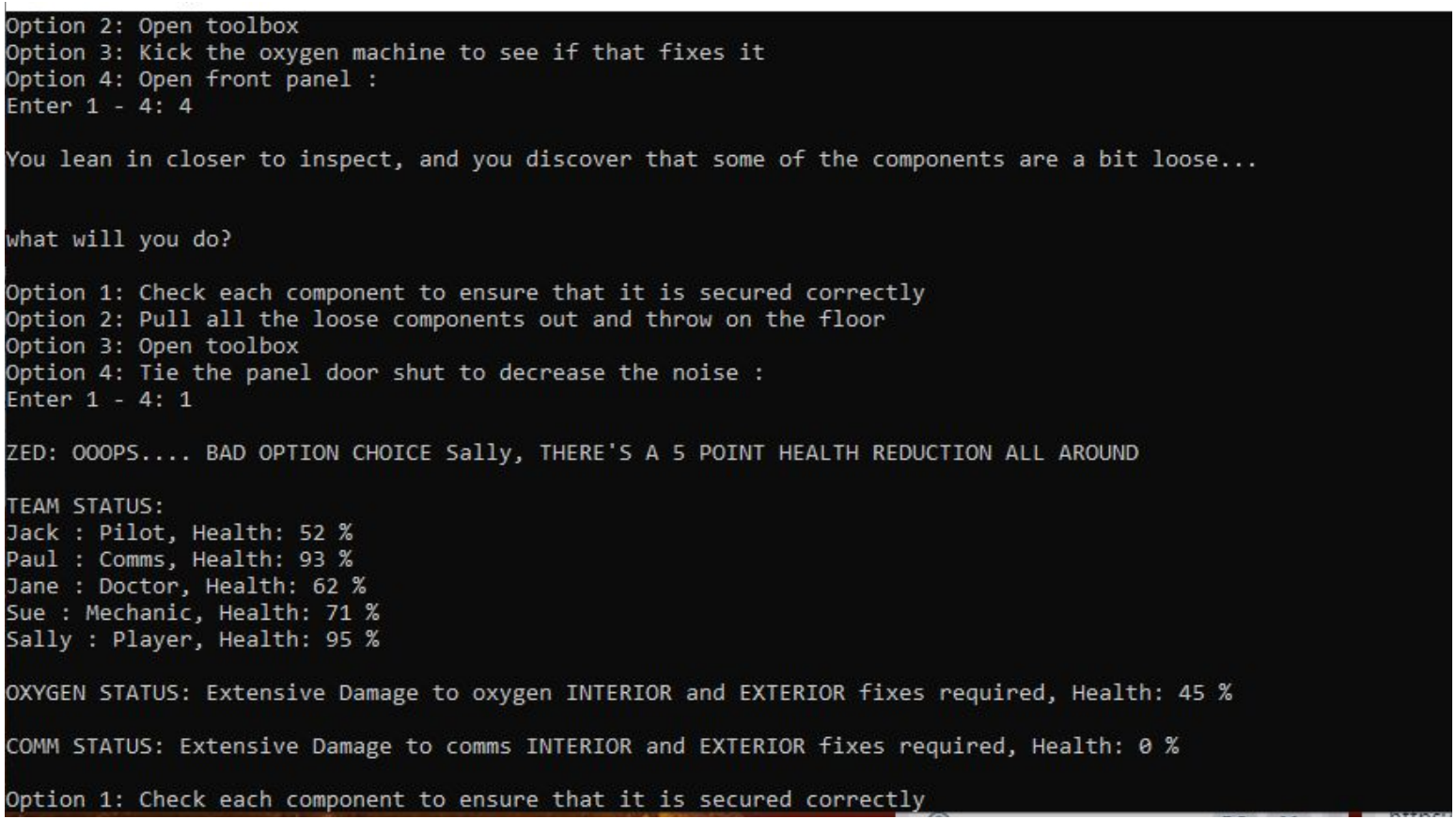
Current Trello Board

https://trello.com/b/I75QfmWr/python-planning

Screenshot 1 - Trello


gametest.py > check_health_GT_100
70 def check_comms():
71 global comm_desc
72 global comm_health
73 if comm_health < 0:
74 comm_health = 0
75 elif comm_health > 100:
76 comm_health = 100
77 print("COMM STATUS: {}, Health: {} %\n".format(comm_desc, comm_health))
78 #***
79 def check_oxygen():
80 global oxygen_desc
81 global oxygen_health
82 if oxygen_health < 0:
83 oxygen_health = 0
84 elif oxygen_health > 100:
85 oxygen_health = 100
86 print("OXYGEN STATUS: {}, Health: {} %\n".format(oxygen_desc,oxygen_health))
87 #***
88 def check_team():
89 print("TEAM STATUS: \n{} : {}, Health: {} %".format(crew1_name, crew1_skill, crew1_health))
90 print("{} : {}, Health: {} %".format(crew2 name, crew2 skill, crew2 health))

Screenshot


Option 2: Open toolbox
Option 3: Kick the oxygen machine to see if that fixes it
Option 4: Open front panel :
Enter 1 - 4: 4
You lean in closer to inspect, and you discover that some of the components are a bit loose...
what will you do?
Option 1: Check each component to ensure that it is secured correctly
Option 2: Pull all the loose components out and throw on the floor
Option 3: Open toolbox
Option 4: Tie the panel door shut to decrease the noise :
Enter 1 - 4: 1
ZED: OOOPS.... BAD OPTION CHOICE Sally, THERE'S A 5 POINT HEALTH REDUCTION ALL AROUND
TEAM STATUS:
Jack : Pilot, Health: 52 %
Paul : Comms, Health: 93 %
Jane : Doctor, Health: 62 %
Sue : Mechanic, Health: 71 %
Sally : Player, Health: 95 %
OXYGEN STATUS: Extensive Damage to oxygen INTERIOR and EXTERIOR fixes required, Health: 45 %
COMM STATUS: Extensive Damage to comms INTERIOR and EXTERIOR fixes required, Health: 0 %
Option 1: Check each component to ensure that it is secured correctly

Screenshot

Group 3 Project Development Team

Mikael Cesar
Badra Ali Osman
Colin Coyne

Questions/ Comments?

Thank You!