COMP 2800 Group Project Report

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1. Introduction

1.1 Purpose of the project

When we first set out to create a Java3D project as a group, we initially considered a variety of options. We explored designs for a racing game, a shooting game, and even an implementation of Flappy Bird. We were looking for something that would prioritize user interaction, complete with a detailed and realistic interface. Ultimately, we decided that a virtual escape room would be the perfect opportunity to meet our requirements. With that, Escape Java was born.

The purpose of our Escape Java project was threefold. First, we wanted to create a project to showcase our understanding of object-oriented software development in the scope of Java3D. Second, we wanted to demonstrate our mastery of the Scrum framework and adoption of the Agile development methodology. Third, we wanted to provide an interactive and engaging experience for our audience.

Escape Java was a great opportunity for us to develop our software development skills and apply the knowledge we gained in the labs and assignments throughout our course to a creative endeavour of our own. Escape Java was a direct application of our understanding of animated objects, digital sensory features, and virtual spaces. We'll go more in depth about our software development process in Section 3 of this report.

Another purpose of this project to use the Agile methodology, particularly the Scrum framework, to complete our tasks efficiently and effectively. Our project demonstrates our ability to work collaboratively as a team, collectively contributing our individual skillset and expertise to accomplish a common goal.

As proven by the voting results in the last week of class, our project was engaging and interactive. We chose to model our virtual space on the Java Lounge, a frequented room in Erie Hall, to incorporate an element of realism into our digital project. The audience was quick to recognize a familiar setting, increasing the level of engagement in the virtual world we created.

1.2 Issues to be discussed and their significance

The first step of modelling the Java Lounge posed a significant problem. Since we were using a real-life room as reference, we had very little margin for error and were required to pay a lot of attention to detail. We initially tried to scan the room as a whole using a mobile application to scan 3D objects. This presented a new issue: The scan we took morphed the objects of the room into one singular object, hindering our ability to interact with individual pieces and position them. We ultimately decided to model each object of the room separately and position them individually. While this approach took more time and sometimes four decimal points of transition coordinates, it resulted in a life-like representation of the Java Lounge.

Navigation around the room was another issue. We faced a problem of defining the camera's path while simultaneously allowing the user to look around at their surroundings. Since one of our key priorities for the project was user engagement, it was crucial to emphasize the user's perspective. This is why we placed the viewing capabilities and mechanisms in the control of the user themselves. The multiple views are defined by their navigation around the room, being able to turn around, crouch, and even elevate to search the room from a bird's eye view.

We also faced some issues with using the Scrum methodology regularly and consistently. As a group of full-time undergraduate students with a number of other commitments, it was difficult to commit to the number of hours specified in our capacity every day. Our capacity realistically fluctuated, increasing some days and decreasing others. This created some issues in our burndown chart, which we will discuss in greater detail in Section 2.

1.3 Project methods

We used a number of techniques, processes, and tools to manage and execute Escape Java. In the context of our project, we primarily used Agile development, version control, continuous integration and delivery, test-driven development, and pair programming.

Adopting the Agile development methodology was the crux of our project and defined the foundation of what we would eventually build. The essential implementation of the Agile methodology was breaking our project into smaller tasks. We used the Agile manifesto as reference, prioritizing early and continuous delivery of software, welcoming changing requirements, and delivering working software frequently. We used Scrum specifically to manage our project, helping us prioritize tasks, set goals, and iterate on our development process based on feedback from our team.

As a team of 5 working together, version control was an imperative component of our work together. We used Git as our version control system to keep track of changes to our codebase. Git helped us maintain multiple versions of our code, collaborate on code changes, and quickly revert to previous versions if necessary. We worked on multiple branches to minimize conflicts and used detailed commit messages to document our iterative changes to the overall project.

Test-driven development was another key component of the development of Escape Java. When we identified a new use case or story to implement, we defined the test cases that would indicate a successful completion of that task and then developed the code to pass those tests. We translated the requirement of the feature into a unit or integration test, and then wrote and implemented the code to fulfill that requirement. Through test-driven development, we were able to innovate faster and reduce unnecessary implementations by only creating enough code to pass the test.

We met online to work on the project together, and, in many situations, we participated in pair-programming in smaller groups. One person would share the code they were implementing as the on-lookers provided feedback. We used this method during critical stages of the project to ensure that complex parts of the code were developed in a collaborative fashion. This ultimately helped us reduce errors, improve code quality, and increase the group's collective understanding of the code.

1.4 Limitations and assumptions

The main limitations of our project were those that Java3D presented. As a fairly outdated library, we didn't have an adequate amount of resources or documentation to support us through the development of our project. Additionally, there were a few restrictions when it came to importing objects from Blender. We faced some difficulty in directly attaching an object's texture file from Blender. This motivated the creation of our MTL parser, which takes a material file as input and applies it to its respective 3D object within Java3D.

In terms of creative endeavours, we were limited by the realistic virtualization of our project. We had to comply with the physical blueprint of the Java Lounge itself to maintain its referential integrity and representation. This meant that the puzzles we incorporated into the project were required to be those that complimented the physical space; we included colored boxes, clues on the TV screens, and interaction with the high chairs.

2. Project Management with Scrum

2.1 Use cases as backlog items

After the modelling of the room was complete, the first use cases were related to the user's navigation and interaction around the room. These use cases became backlog items for the game features. This included use cases like:

- Move: The user moves around the room, moving the camera as well.
- Crouch: The user crouches down, lowering the camera's view.
- Hover: The user hovers above their position, getting a bird's eye view.
- Inspect: The user clicks on an object to inspect it, zooming it into view.
- Collide: The user collides with an object, unable to move through it.

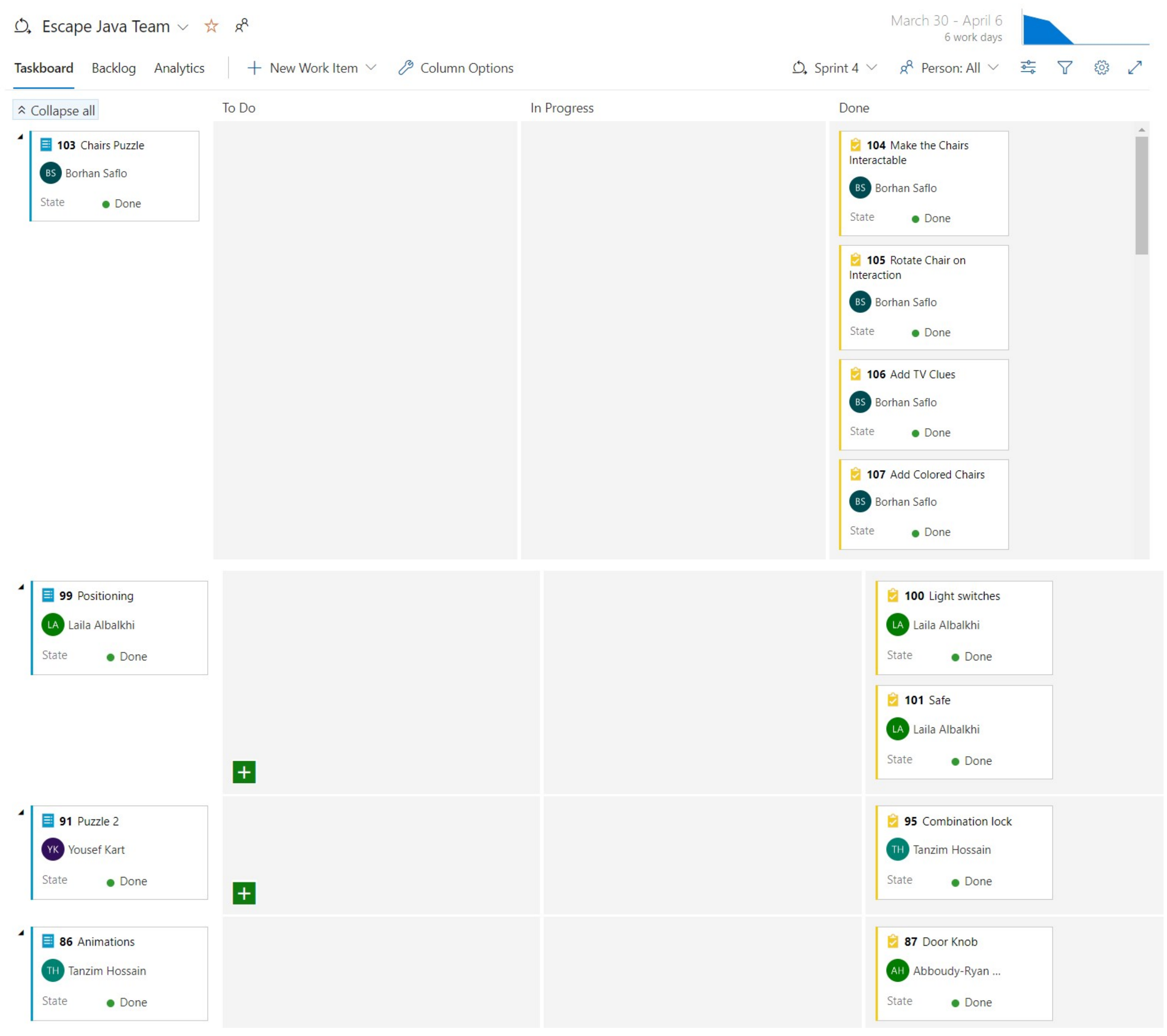
Then, we started to implement puzzles and clues around the room to increase the user's level of engagement and interaction with their surrounding virtual environment. The use cases transformed into tasks that implemented the logic of the puzzles. This included:

- Input code: The user inputs a numeric code into the computer.
- Turn chair: The user presses 'E' to turn the chair to face a certain direction.
- Rotate lock wheel: The user uses the mouse to rotate the lock to find the correct combination.

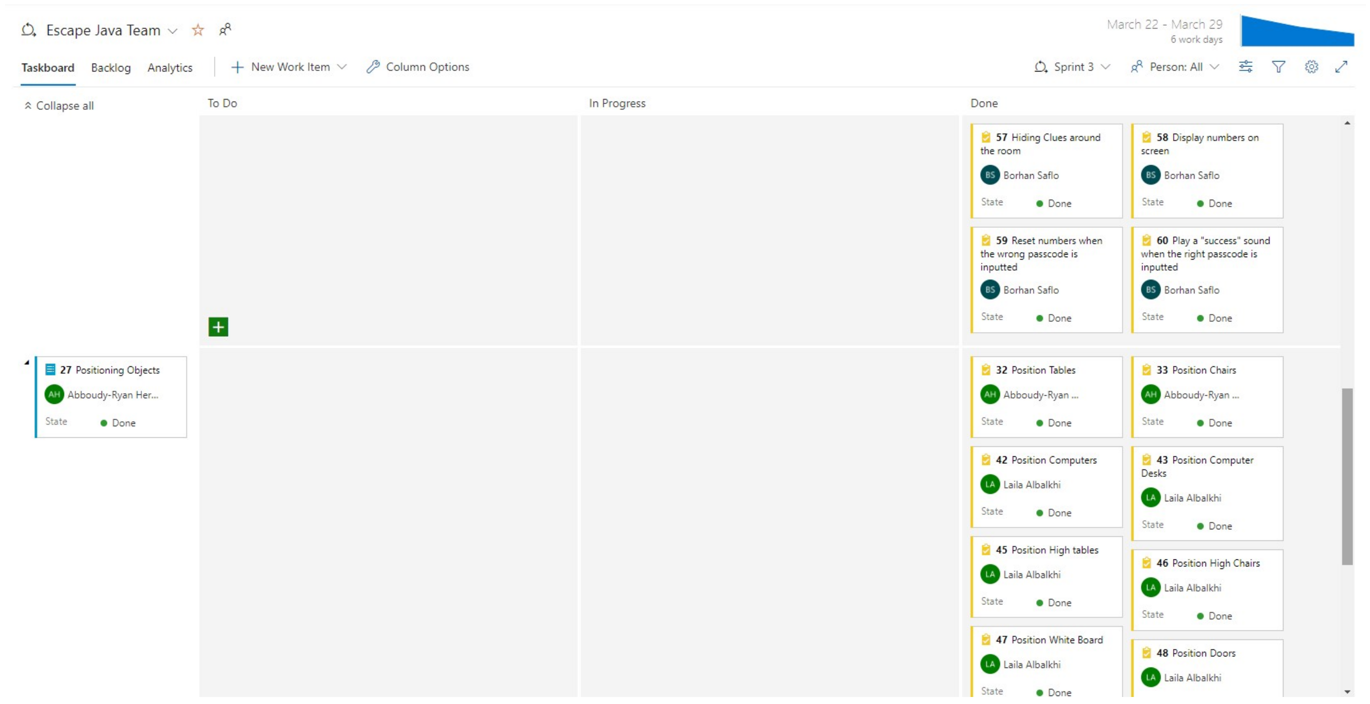
2.2 Creation of tasks

At the start of each sprint, we dedicated a meeting to identifying and assigning the tasks of the upcoming week to everyone on our team. We made a list of the tasks we aimed to complete based on the above use cases and assigned them based on everyone's capacity for that week and their projected availability. Due to the intertwined nature of a lot of our features, each backlog item had a set of tasks associated with it. Typically, we aimed to assign specific items to a group member who was skilled or interested in that task.

To embody the Scrum methodology, our expectations and tasks changed iteratively and continuously as our project progressed. We realized that there were many items we ideally would have liked to complete but needed to be cut due to the time constraints we had. Our main goal was to ensure that at any point in time of our project, the user would experience complete functionality and experience no bugs. The puzzles were added incrementally, one after the other. Here are a few screenshots to show some of the tasks and backlog items we created.



	To Do	In Progress	Done
103 Chairs Puzzle — BS Borhan Saflo — State ● Done			**104** Make the Chairs Interactable — BS Borhan Saflo — State ● Done; **105** Rotate Chair on Interaction — BS Borhan Saflo — State ● Done; **106** Add TV Clues — BS Borhan Saflo — State ● Done; **107** Add Colored Chairs — BS Borhan Saflo — State ● Done
99 Positioning — LA Laila Albalkhi — State ● Done			**100** Light switches — LA Laila Albalkhi — State ● Done; **101** Safe — LA Laila Albalkhi — State ● Done
91 Puzzle 2 — YK Yousef Kart — State ● Done			**95** Combination lock — TH Tanzim Hossain — State ● Done
86 Animations — TH Tanzim Hossain — State ● Done			**87** Door Knob — AH Abboudy-Ryan ... — State ● Done

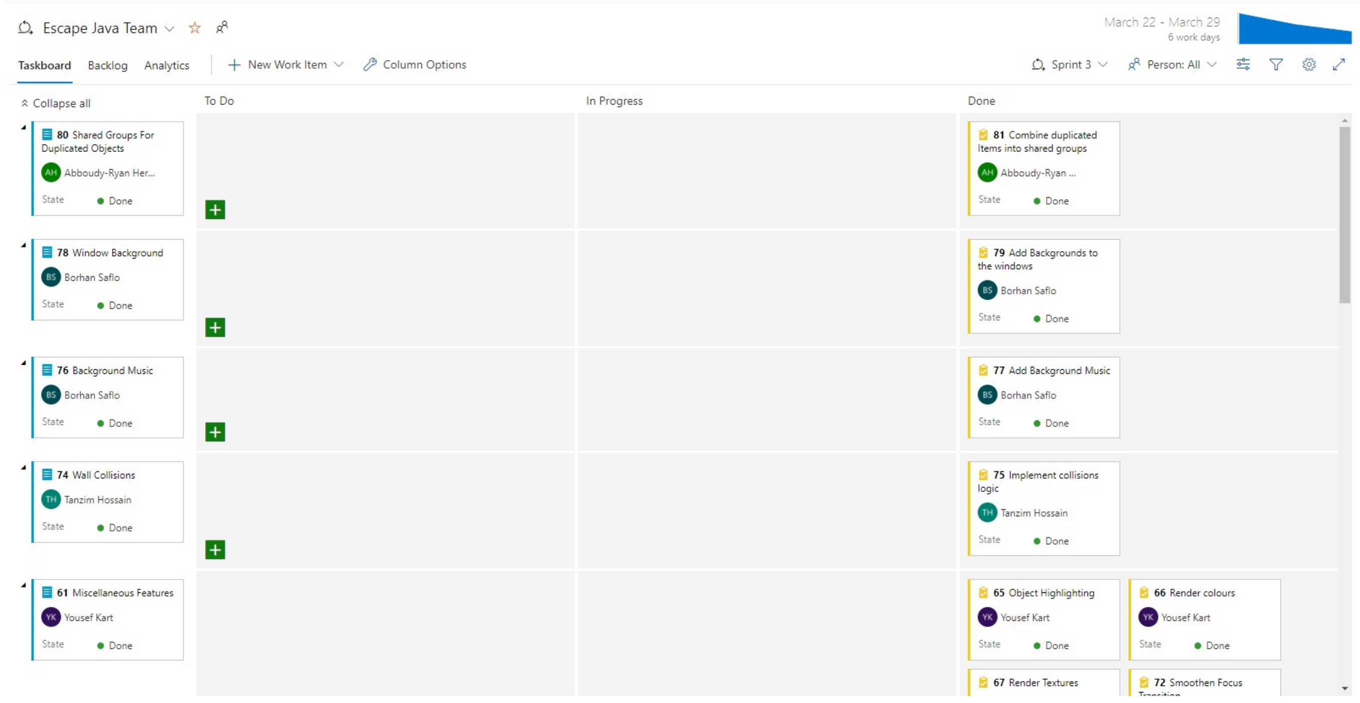


Escape Java Team

March 22 - March 29
6 work days

Taskboard Backlog Analytics | New Work Item | Column Options | Sprint 3 | Person: All

	To Do	In Progress	Done
			57 Hiding Clues around the room — Borhan Saflo — State: Done; 58 Display numbers on screen — Borhan Saflo — State: Done; 59 Reset numbers when the wrong passcode is inputted — Borhan Saflo — State: Done; 60 Play a "success" sound when the right passcode is inputted — Borhan Saflo — State: Done
27 Positioning Objects — Abboudy-Ryan Her... — State: Done			32 Position Tables — Abboudy-Ryan ... — State: Done; 33 Position Chairs — Abboudy-Ryan ... — State: Done; 42 Position Computers — Laila Albalkhi — State: Done; 43 Position Computer Desks — Laila Albalkhi — State: Done; 45 Position High tables — Laila Albalkhi — State: Done; 46 Position High Chairs — Laila Albalkhi — State: Done; 47 Position White Board — Laila Albalkhi — State: Done; 48 Position Doors — Laila Albalkhi



Escape Java Team

March 22 - March 29
6 work days

Taskboard Backlog Analytics | New Work Item | Column Options | Sprint 3 | Person: All

	To Do	In Progress	Done
80 Shared Groups For Duplicated Objects — Abboudy-Ryan Her... — State: Done			81 Combine duplicated Items into shared groups — Abboudy-Ryan ... — State: Done
78 Window Background — Borhan Saflo — State: Done			79 Add Backgrounds to the windows — Borhan Saflo — State: Done
76 Background Music — Borhan Saflo — State: Done			77 Add Background Music — Borhan Saflo — State: Done
74 Wall Collisions — Tanzim Hossain — State: Done			75 Implement collisions logic — Tanzim Hossain — State: Done
61 Miscellaneous Features — Yousef Kart — State: Done			65 Object Highlighting — Yousef Kart — State: Done; 66 Render colours — Yousef Kart — State: Done; 67 Render Textures; 72 Smoothen Focus

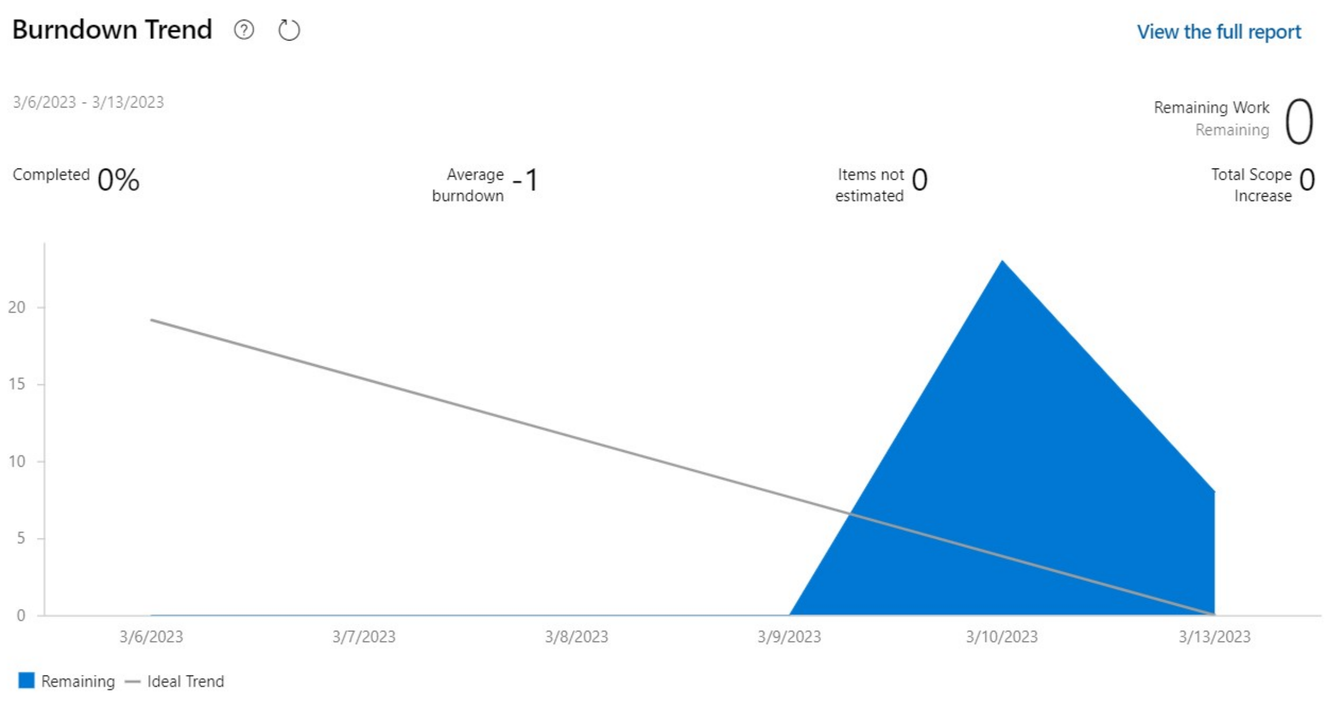
We used the INVEST criteria to create well-defined tasks and Product Backlog Items (PBIs) that met the following criteria:

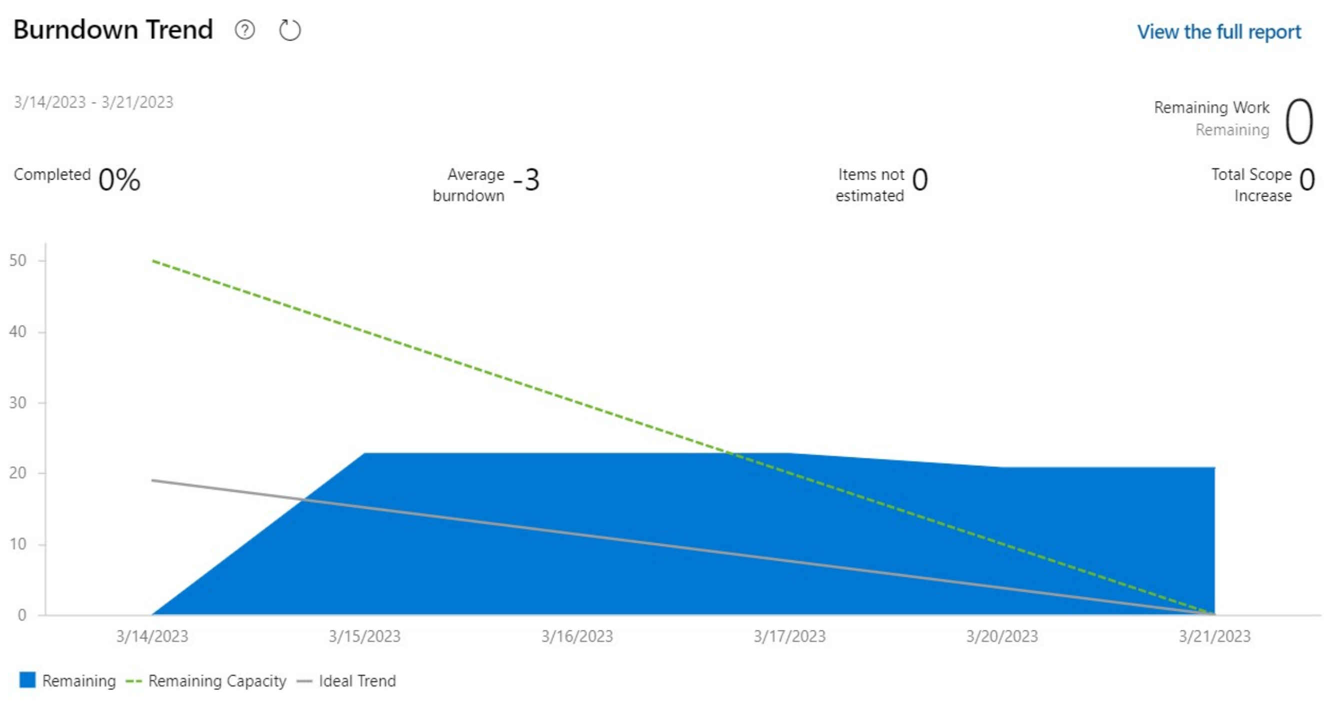
- **Independent:** The PBI is self-contained and is not reliant on other PBIs.
- **Negotiable:** The PBI is not an explicit contract and leaves space for discussion. The 'What' and 'Why' of the task is described, but not the 'How'.
- **Valuable:** The PBI must deliver value to the stakeholders.
- **Estimable:** The size of the PBI must be estimable to become part of the iteration. If it is not estimable, it should be split.
- **Small:** The PBI is not too big such that it is impossible to plan and prioritize with a level of accuracy, small enough to complete in a Sprint.
- **Testable:** The PBI's description provides the necessary information for development testing. Acceptance criterion can be written immediately.

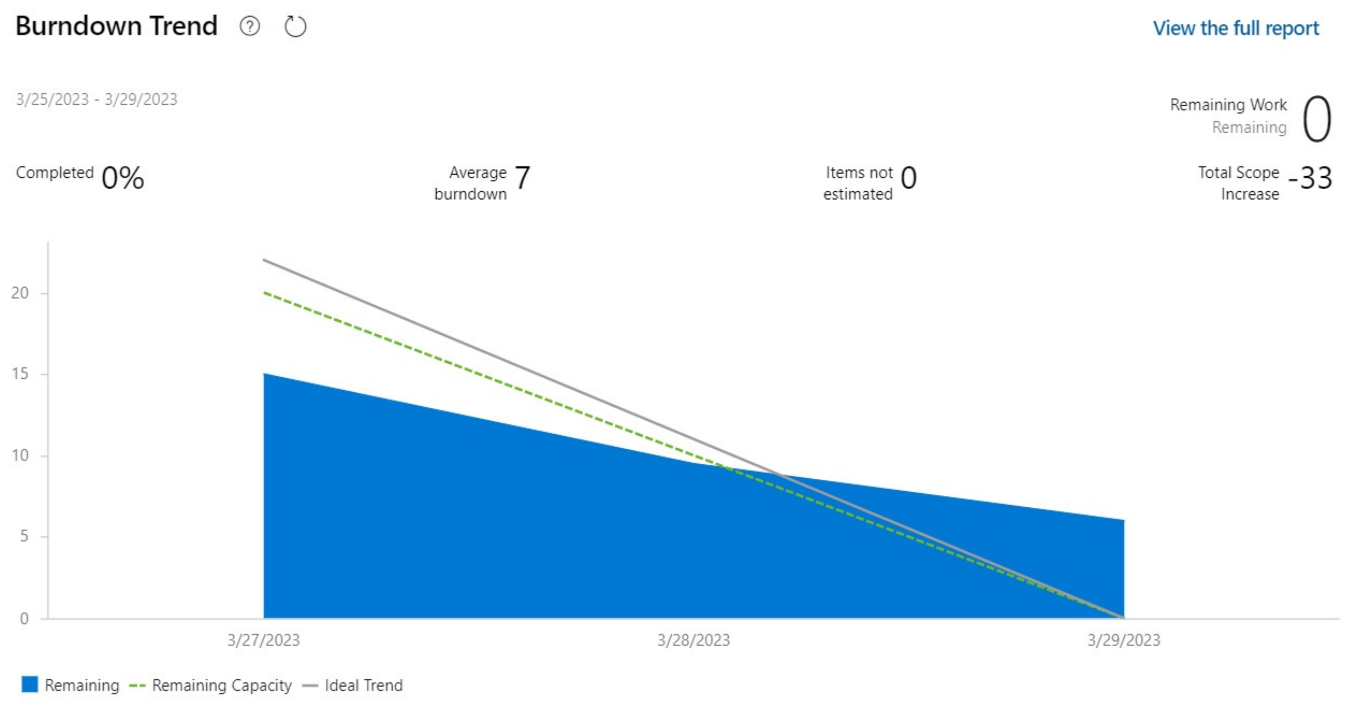
2.3 Planning and Carrying out the Sprint

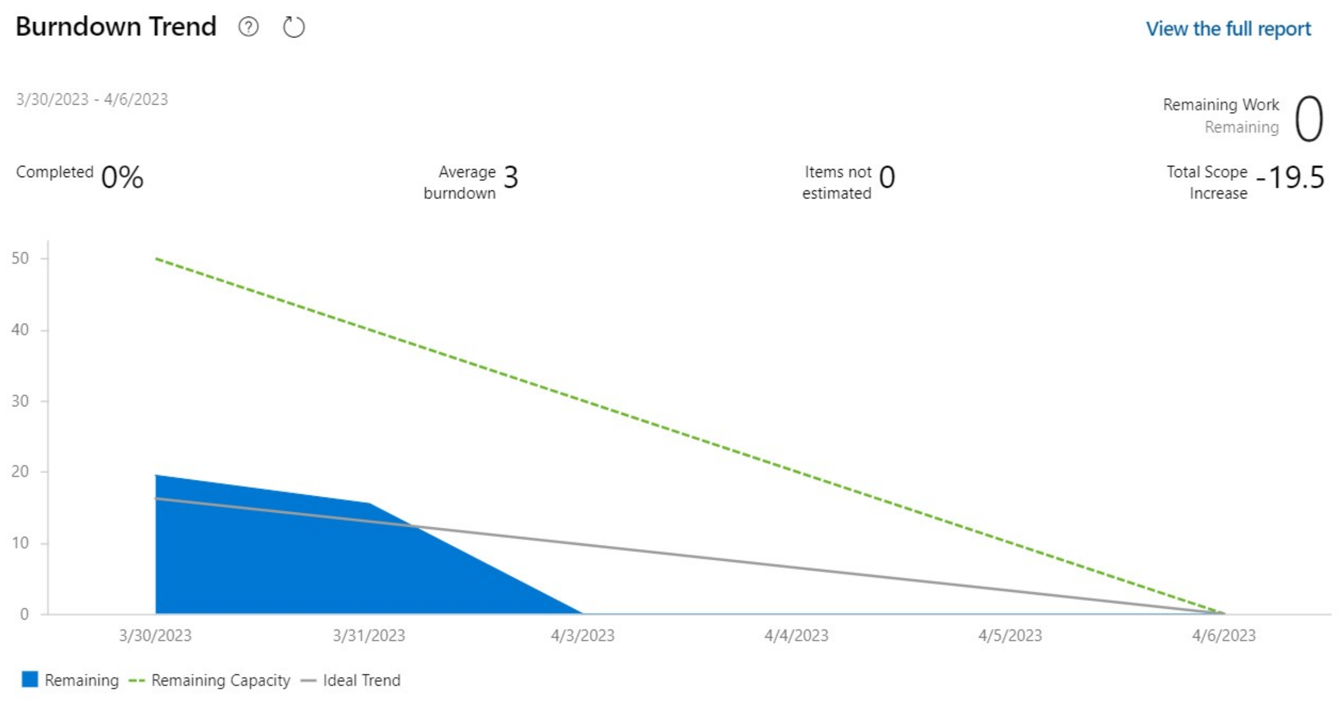
Our sprints were each a week long, our first one starting the week after reading week. Our first sprint was heavily focused on the research and requirements gathering portion of the project and spread out evenly among all team members. Borhan, our Scrum master, continuously and regularly monitored the sprints to ensure we were on track, adjusting tasks and our capacities as needed. By default, our sprints were set for only weekdays. We recognized later that this was not representative of our work done, as a lot of us used our weekends to work on the project. We ended up having 4 complete sprint cycles.

We carried out the Sprints on the basis of the three roles in Scrum: Scrum Master (Borhan), Product Owner (XY), and Development Team (all). Borhan was in charge of ensuring that our board was on track, our requirements were given by XY, and everyone on our team implemented the features as the development team.









The above are screenshots from our burndown charts for each sprint. Evidently, in the first screenshot, our understanding of the implementation of the Agile methodology through Scrum practices was still developing. We did not add our capacity and added tasks mid-sprint without an accurate estimate of the time they would take to complete. By the last burndown chart, we were more comfortable with Scrum, and the slope of the graph began to decline. It's worth mentioning that there were a few instances where we had unfinished tasks at the end of our sprint. This was because there were a lot of added features we wished to implement but couldn't due to the lack of time.

2.4 Team management

To ensure regular communication, we created a Discord group chat to organize synchronous meetings and to hold asynchronous discussions. We met for 15 minutes every night to discuss our individual progress and make any team-wide decisions that would affect the entirety of the project.

To manage our team effectively, we made sure to enforce clear roles and responsibilities. We worked together to share ideas and give each other feedback on the code we implemented. We also made sure to celebrate our successes to keep team morale high. This fell in line with the Scrum methodology as it encourages a culture of continuous improvement. We were able to optimize our work and deliver a high-quality project by regularly evaluating our processes and identifying areas for improvement.

3. (Object-Oriented) Software Development

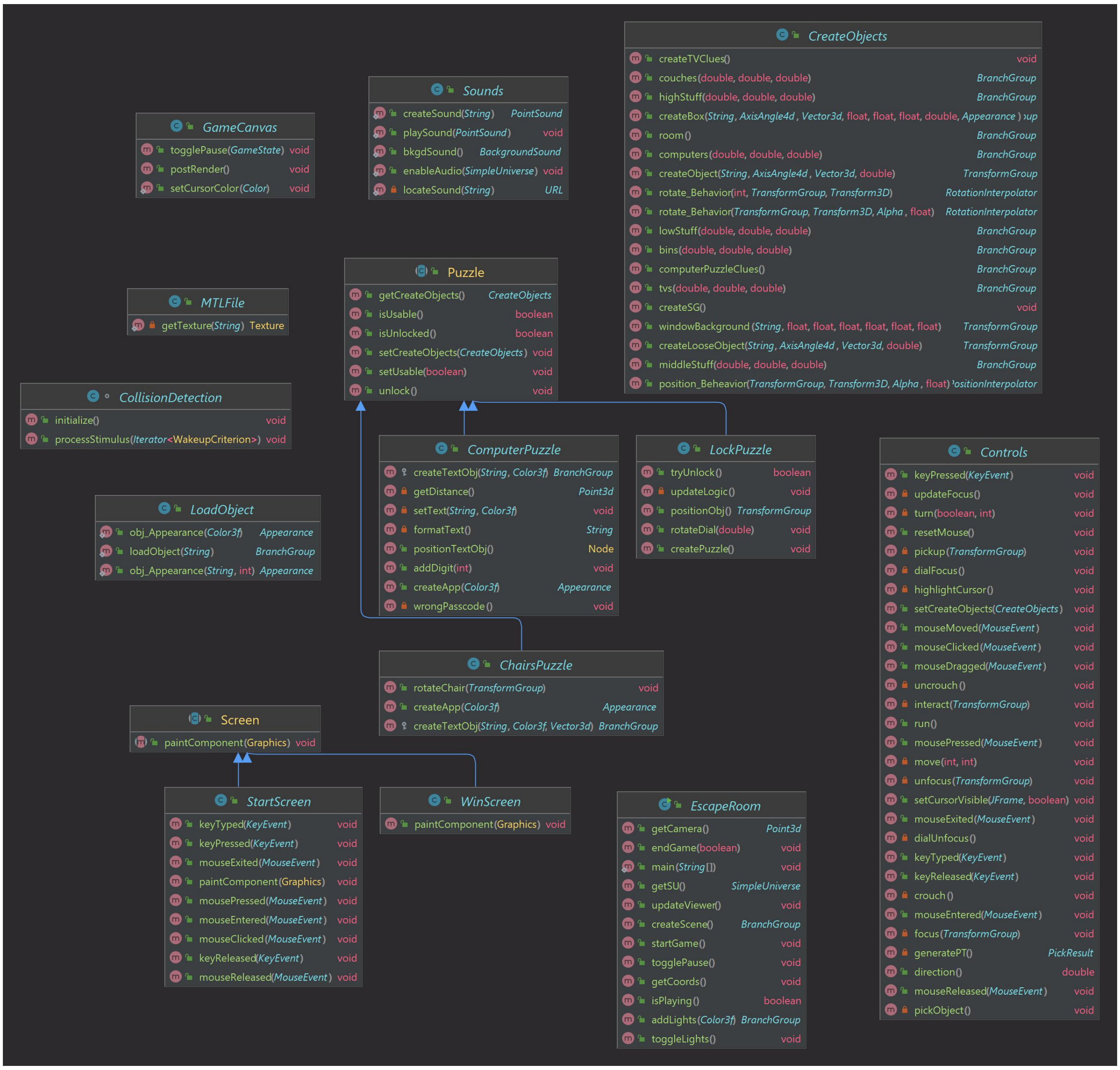
3.1 Identification of classes

We have the following classes for our project:

- **ChairsPuzzle**: contains the logic for the rotating chairs puzzle.
- **CollisionDetection**: handles and detects any collision during user navigation and interaction.
- **ComputerPuzzle**: contains the logic for the passcode puzzle on the computer.
- **Controls**: handles the details of the user navigation and their ability to interact with the virtual space.
- **CreateObjects**: creates and renders all the objects that appear in the room.
- **EscapeRoom**: launches the virtual escape room experience.
- **GameCanvas**: creates the canvas for the game.
- **LoadObject**: loads each object from its corresponding 3D model.
- **LockPuzzle**: contains the logic for the lock combination puzzle on the safe.
- **MTLFile**: parses material files to add textures.
- **Sounds**: incorporates both background music and sound effects to the game.
- **StartScreen**: loads the start screen at the beginning of the game.
- **WinScreen**: displays a success message at the end of the game upon escape.

3.2 Software design with class diagram(s)

See attached class diagram image for more details.


CreateObjects
createTVClues() void
couches(double, double, double) BranchGroup
highStuff(double, double, double) BranchGroup
createBox(String, AxisAngle4d, Vector3d, float, float, float, double, Appearance) up
room() BranchGroup
computers(double, double, double) BranchGroup
createObject(String, AxisAngle4d, Vector3d, double) TransformGroup
rotate_Behavior(int, TransformGroup, Transform3D) RotationInterpolator
rotate_Behavior(TransformGroup, Transform3D, Alpha, float) RotationInterpolator
lowStuff(double, double, double) BranchGroup
bins(double, double, double) BranchGroup
computerPuzzleClues() BranchGroup
tvs(double, double, double) BranchGroup
createSG() void
windowBackground(String, float, float, float, float, float, float) TransformGroup
createLooseObject(String, AxisAngle4d, Vector3d, double) TransformGroup
middleStuff(double, double, double) BranchGroup
position_Beheavior(TransformGroup, Transform3D, Alpha, float) ositionInterpolator
Sounds
createSound(String) PointSound
playSound(PointSound) void
bkgdSound() BackgroundSound
enableAudio(SimpleUniverse) void
locateSound(String) URL
GameCanvas
togglePause(GameState) void
postRender() void
setCursorColor(Color) void
Puzzle
getCreateObjects() CreateObjects
isUsable() boolean
isUnlocked() boolean
setCreateObjects(CreateObjects) void
setUsable(boolean) void
unlock() void
MTLFile
getTexture(String) Texture
CollisionDetection
initialize() void
processStimulus(Iterator<WakeupCriterion>) void
ComputerPuzzle
createTextObj(String, Color3f) BranchGroup
getDistance() Point3d
setText(String, Color3f) void
formatText() String
positionTextObj() Node
addDigit(int) void
createApp(Color3f) Appearance
wrongPasscode() void
LockPuzzle
tryUnlock() boolean
updateLogic() void
positionObj() TransformGroup
rotateDial(double) void
createPuzzle() void
Controls
keyPressed(KeyEvent) void
updateFocus() void
turn(boolean, int) void
resetMouse() void
pickup(TransformGroup) void
dialFocus() void
highlightCursor() void
setCreateObjects(CreateObjects) void
mouseMoved(MouseEvent) void
mouseClicked(MouseEvent) void
mouseDragged(MouseEvent) void
uncrouch() void
interact(TransformGroup) void
run() void
mousePressed(MouseEvent) void
move(int, int) void
unfocus(TransformGroup) void
setCursorVisible(JFrame, boolean) void
mouseExited(MouseEvent) void
dialUnfocus() void
keyTyped(KeyEvent) void
keyReleased(KeyEvent) void
crouch() void
mouseEntered(MouseEvent) void
focus(TransformGroup) void
generatePT() PickResult
direction() double
mouseReleased(MouseEvent) void
pickObject() void
LoadObject
obj_Appearance(Color3f) Appearance
loadObject(String) BranchGroup
obj_Appearance(String, int) Appearance
ChairsPuzzle
rotateChair(TransformGroup) void
createApp(Color3f) Appearance
createTextObj(String, Color3f, Vector3d) BranchGroup
Screen
paintComponent(Graphics) void
StartScreen
keyTyped(KeyEvent) void
keyPressed(KeyEvent) void
mouseExited(MouseEvent) void
paintComponent(Graphics) void
mousePressed(MouseEvent) void
mouseEntered(MouseEvent) void
mouseClicked(MouseEvent) void
keyReleased(KeyEvent) void
mouseReleased(MouseEvent) void
WinScreen
paintComponent(Graphics) void
EscapeRoom
getCamera() Point3d
endGame(boolean) void
main(String[]) void
getSU() SimpleUniverse
updateViewer() void
createScene() BranchGroup
startGame() void
togglePause() void
getCoords() void
isPlaying() boolean
addLights(Color3f) BranchGroup
toggleLights() void

3.3 Techniques of implementation

We used abstraction to simplify the design of our game and make it more manageable. This helped us create simple and reusable objects that could be easily integrated into the game, including the chairs and tables that were regularly repeated around the room. We also used polymorphism to create objects that could behave differently based on their context. This enabled us to create a more dynamic and flexible game with objects that could adapt to different situations, including the clues that the user was able to interact with.

We used polymorphism to create objects that take on multiple forms, especially to create visual differences (size, height, texture) between them. This was extremely useful and effective when creating multiple objects that were very similar but shared slight differences. This was used to create the colored cubes around the room and the furniture that was positioned.

In hindsight, there were a lot more object-oriented software development practices and design patterns we could have incorporated and implemented into our project. Encapsulation would have been helpful to hide the internal details of an object to only expose the public interface to others, like the clues that were hidden around the room. Inheritance could have been implemented for the creation of each puzzle since they shared a lot of the same characteristics and had the same user interaction.

3.4 Software testing and operation

We used a combination of unit-testing, integration testing, and acceptance testing to ensure that our project was progressing on the right track and meeting the specified requirements.

Using unit tests helped us catch errors early in the development process and ensure that the individual components of the game were functioning correctly. Our unit tests made sure that any added feature did not jeopardize the integrity of our other implemented features.

Integration testing was important to test how the various components worked together as a system, such as the game engine, the user interface, and the puzzle logic. Integration testing caught any errors that were missed by our unit tests.

We also implemented a variety of acceptance tests to validate the requirements of our end-users. We were able to gather feedback from our personal experiences with the game and adjust our implementation accordingly.

Throughout our testing process, the most important thing was to regularly monitor and log our progress. Any failed or fixed tests were documented and used as references when a new bug appeared. This was crucial in making sure that the performance of our game was monitored, giving us the opportunity to proactively identify and resolve issues and ensure that the game remained performant for users.

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4. Discussions and Recommendations

4.1 Discussions about the team projects

The team project was a testament to our ability to work in a group to accomplish a common goal. The skills we learned by working on a team are skills that we can later directly apply to our jobs in the tech industry, especially as software engineers. Alone, we would not have been able to complete the project within the given time frame. It was only by working as a team that we were able to pool our resources, skills, and shared experiences to come up with an impressive result.

Within our own team, we had many discussions and open conversations. We discussed the scope of the project to clearly define the boundaries we would work within. We discussed how to approach the logic of each puzzle as we implemented it, and even discussed how we should manage ourselves using Scrum. The Scrum framework was crucial in ensuring that we were getting work done in an efficient and effective manner, and it was a visual representation of our progress as we approached our deadlines.

4.2 Recommendations for better practices

If we were to do this group project again, we probably would have started earlier. Although we were instructed to start after reading week, it would have been beneficial to get a head start on these process and the understanding of Scrum and the Agile methodology beforehand.

It would have also helped us to clearly define our roles at the beginning of the project. We started to identify roles as tasks came up to be able to accurately identify everyone's strengths and weaknesses, but it may have saved us some time and conflict to clearly define them earlier.

Appendix A: Feature Descriptions

- F1: Java Lounge Model
- F2: Pick up objects
- F3: Focus on objects
- F4: Computer Puzzle
- F5: Chair Puzzle
- F6: Lock Puzzle
- F7: Computer Puzzle Clues
- F8: Chair Puzzle Clues
- F9: Lock Puzzle Clues
- F10: Background sounds
- F11: Room lights
- F12: Navigating the room

	F1	**F2**	**F3**	**F4**	**F5**	**F6**	**F7**	**F8**	**F9**	**F10**	**F11**	**F12**
Background	X											X
Sound(s)				X	X	X				X		X
Light(s)											X	X
3D objects (texture mapping)	X				X	X						
3D objects (shape changes)	X											
Animation (pre-defined)	X	X										
Self-defined behaviour				X	X	X						X
Collision detection	X	X		X	X	X	X					X
Mouse picking		X		X	X		X	X	X			
LOD		X	X			X						X
Navigation	X			X	X		X	X	X			X
Multi-view		X	X		X		X	X	X			X

Appendix B: Contribution Table

Backlog Item Title	**Task Title**	**Borhan**	**Laila**	**Tanzim**	**Ryan**	**Yousef**
Cross Hair	Cross Hair	10				
Game States	Game States	10				
	Paused Screen	5			5	
	Start Screen	10				

Backlog Item Title	Task Title	Borhan	Laila	Tanzim	Ryan	Yousef
Model Room	Model Couches			10		
	Model Computer Chairs			10		
	Model High Tables			10		
	Model High Chairs			10		
	Model Middle Tables			10		
	Model Middle Chairs			10		
	Model Recycling Bins					10
	Model Trash Bin					10
	Model Clock					10
	Model Window					10
	Model Computer					10
	Model Computer Desks					10
	Model TVs					10
	Model Whiteboard					10
	Model Door					10
	Model Ottoman			10		
	Model Lights					10
	Model Fan			10		
Positioning Objects	Positioning Couch		10			
	Positioning High Chairs		10			
	Positioning Low Chairs		10			
	Positioning Low Tables		10			
	Positioning Middle Chairs				10	
	Positioning Middle Tables				10	
	Positioning Safe		10			
Model Textures	Wooden Texture			5		5
	Floor Texture			5		5
	Wall Texture			5		5

Backlog Item Title	Task Title	Borhan	Laila	Tanzim	Ryan	Yousef
	Couch Texture			5		5
	Ceiling Texture			5		5
Collision Detection	Develop Collision Detection			10		
	Implement Wall Collision		3	2	3	2
	Test Collision Detection	2	2	2	2	2
Camera Movement	Develop Keyboard Movement	4	3	2	1	
	Develop Mouse Movement	10				
	Test Mouse Movement		7		3	
Object Interaction	Focus Object				3	7
	Unfocus Object				3	7
	Object Highlighting	2	2	2	2	2
Refactor Code	Create SharedGroups				10	
	Optimize object rendering				10	
Sounds	Background Music	10				
	Success Sound Effect	10				
	Failure Sound Effect	10				
Computer Puzzle	Design User Interface	5	5			
	Implement Numpad Logic	9	1			
	Hide Clues		10			
	Display Numbers	10				
	Reset Numbers For Wrong Passcode	8	1		1	
	Incorporate Sound To Interaction	10				
Chairs Puzzle	Make Chairs Interactable	4		3		3
	Rotate Chair				3	7
	Add TV Clues	10				
	Add Colored Chairs					10
	Implement Puzzle Logic	10				
Lock Puzzle	Implement Combination Logic			10		

Backlog Item Title	Task Title	Borhan	Laila	Tanzim	Ryan	Yousef
	Open Safe			10		
	Add Key			8		2
Animations	Door Knob		3	2		5
	Door		1		8	1
	Chair		1		8	1
	Safe			10		

Appendix C: Participation Table

Note: all durations are in minutes.

Meeting Date	Duration	Borhan	Laila	Tanzim	Ryan	Yousef
27.Feb.2023	30	30	30	30	30	30
01.Mar.2023	30	30	30	30	30	30
02.Mar.2023	15	15	15	15	15	15
03.Mar.2023	15	15	15	15	15	15
06.Mar.2023	15	15	15	15	15	15
07.Mar.2023	15	15	15	15	15	15
08.Mar.2023	15	15	15	15	15	15
09.Mar.2023	15	15	15	15	15	15
10.Mar.2023	15	15	15	15	15	15
11.Mar.2023	45	45	45	45	45	45
13.Mar.2023	15	15	15	15	15	15
14.Mar.2023	15	15	15	15	15	15
15.Mar.2023	15	15	15	15	15	15
16.Mar.2023	15	15	15	15	15	15
21.Mar.2034	45	45	45	45	45	45
22.Mar.2023	15	15	15	15	15	15
23.Mar.2023	10	10	10	10	10	10
24.Mar.2023	10	10	10	10	10	10
25.Mar.2023	60	60	60	60	60	60

Meeting Date	Duration	Borhan	Laila	Tanzim	Ryan	Yousef
26.Mar.2023	120	120	120	120	120	120
27.Mar.2023	15	15	15	15	15	15
28.Mar.2023	15	15	15	15	15	15
29.Mar.2023	10	10	10	10	10	10
01.Apr.2023	30	30	30	30	30	30
02.Apr.2023	30	30	30	30	30	30
03.Apr.2023	30	30	30	30	30	30
04.Apr.2023	10	10	10	10	10	10
05.Apr.2023	10	10	10	10	10	10
08.Apr.2023	10	10	10	10	10	10
Total	690	690	690	690	690	690