Team Avocado Project Plan

Key
Austin Chen   - <mark style="background:red">A</mark>
Enoch Kavur   - <mark>E</mark>
Hoy Wang   - <mark style="background:yellow">H</mark>
Lachlan Kerr   - <mark style="background:lime">L</mark>
William Wong - <mark style="background:cyan">W</mark>

Note: All assignments of duties are covered in meetings, also check the issue board in gitlab for more specific assumptions. However, since issues cannot be assigned more than one person, the issue may not fully reflect how many people

"*****" - means was modified after meeting due note taker forgetting to add it.

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
05					Lab Meeting 1 12:10 - 13:35 Attendees (A, E, H, L, W)		
06			Lab Meeting 2 14:00-15:30 Attendees(A, E, H, L, W)		Lab Meeting 3 14:00-15:30 Attendees(A, E, H, L, W)		
07		Lab Meeting 4 14:00-13:25 Attendees(A, E, H, L, W)			Lab Meeting 5 12:05-13:55 Attendees(A, E, H, L, W)		Last Sprint 1 Session 14:00-18:00 Attendees(A, E, H, L, W)
08	Milestone 1+2 due ~~10:00~~	Lab Meeting 6 14:10 - 15:20			Lab Meeting 7 14:00 -14:2:25		

	15:00	Attendees(A, E, H, L, W)			Attendees(A, E, H, L, W)		
09		Lab Meeting 8 14:05-15:00 Attendees(A, E, H, L, W)			Lab Meeting 12:10-12:25 Attendees(A, E, H, L, W)		Last Sprint 2 Session 14:00 - 16:50 Attendees(A, E, H, L, W)

Lab Meeting 1

2021/10/15 12:10 pm to 1:35 pm (85 mins)
Attendees: Austin, Enoch, Hoy, Lachlan, William
Location: Online (Teams)

What we did.
-   Created Project Planning documents.
-   Setup documentation and standup channel for discord.
-   Setup and added some issues and requirements to the kanban board.

What we discussed.
-   The use of doing stand ups such that we know who is working on what.
-   If we run into troubles working solo, ask help from another person in the group to code together. If it is still too difficult, then the whole team should work on that task/problem.
-   Why using task boards and creating issues is important, especially for a larger team like us.
-   Discussed how to use the task board and kanban, creating labels and issues associated with that label.
-   ***** Decided not to do user stories and proper requirement specs due to the added complexity and tedious work for documenting that, instead just have issues.

What we planned.
-   Use kanban and plan to write most issues for the entities and uml.
-   Meeting next Wednesday 2021/10/20 2:00 pm on discord.
-   Then after next week, meeting every Tuesday at 2:00 pm on discord.

What we assigned.
-   Lachlan to write issues for static entities.
-   Enoch to write issues for uml and in-game goals.

Lab Meeting 2

2021/10/20 2:00 pm to 3:30 pm (90 minutes)
Attendees: Austin, Enoch, Hoy, Lachlan, William
Location: Online (Discord)

What we did.
- Started working on our UML and decided to use 4 design patterns.
- Setup a assumptions channel for us to write all our assumptions, so that we can just compiled them all into an assumption.md at the end of the milestone.

What we discussed.
- Separating the game model from the controller.
- Using strategy patterns for difficulty instead of enum.
- Using composition patterns for goals and using factories to create them.
- Using observer patterns for entities and the grid.
- Battles are implemented by the player and mercenaries will apply a damage increase when fighting battles.
- Using potions and if we should use a state pattern or just have a list of effects.

What we planned.
- To have most of the vital uml classes finished and work on finalising it next meeting.

What we assigned.
- William to finish writing the uml for moving, collectable, static, buildable, entities, health, spawn, damage, moving interfaces.
- Lachlan to work on the difficulty classes.
- Enoch to finish the goal and composition function.
- Austin to work on player and inventory.
- Hoy to work on the dungeon grid.

Lab Meeting 3

2021/10/22 2:00 pm to 4:10 pm (130 mins)
Attendees: Austin, Enoch, Hoy, Lachlan, William
Location: Online (Discord)

What we did.
- Created a live session on VSC, and finished coding up the skeleton code for the uml.
- Setup packages and file structures.

What we discussed.
- Using file structures and subpackages to categorise classes, be organised, and not overload packages with too many classes.
- Writing issues for the tasks we are going to do.
- Using enum for status effects.
- How the grid should be structured.
- Should we write tests before coding, does it make sense to do that in every case? Cannot test entities without the grid being finished.

What we planned.
- Finished the actual code for entities.

What we assigned.
- Lachlan to work on coding static entities, and do some testing of modes.
- William to work on enemy entities.
- Enoch to work coding up goals with some tests and documentations, also work on DungeonResponse.
- Austin and Hoy to work on player, inventory, and collectable entities.

Lab Meeting 4

2021/10/26 2:00 pm to 3:25 pm (85 mins)
Attendees: <mark>Austin</mark>, <mark>Enoch</mark>, <mark>Hoy</mark>, <mark>Lachlan</mark>, <mark>William</mark>
Location: Online (Discord)

What we did.
- Fixed random movement for zombies.
- Added GameToJSON interface for saving games.

What we discussed.
- How battles should occur and movement of the enemy.
- How we go about testing, should focus on testing the packages first instead of the whole game.
- How we should save the game and use JSON.
- How spiders and mercenaries work.
- What information needs to be encapsulated in entities for response.

What we planned.
- Finish off the actual code entities by Friday, then move onto testing.
- Start and finish dungeon maker by Friday.

What we assigned.
- <mark>Lachlan and William will work on spawner, as well as, continuing to finish their part.</mark>
- <mark>Enoch to work on the dungeon maker and implement controller functions.</mark>
- <mark>Hoy and Austin to continue working on player and collectables.</mark>

Lab Meeting 5

2021/10/26 12:05 pm to 1:55 pm (110 mins)
Attendees: Austin, Enoch, Hoy, Lachlan, William
Location: Online (Teams)

What we did.
- Fixed bugs with moving boulders into walls.
- Fixed bug with creation of portals and having no goal specified in json.
- Fixed moving out of bounds bug.
- Tested that maze and boulder worked.
- Front will randomly go to black screen sometimes, also happens with the tutor's version, so concluded as a frontend issue.
- Had a check in with our mentor and was given feedback on our uml and current implementation.
- Implemented portals.

What we discussed.
- How an entity factory should store current mode to create enemies.
- Assumed that players and entities cannot enter outside the grid dimension.
- How mercenary will specifically work and assumptions made.

What we planned.
- Should have a meeting on Sunday for when the meeting is due.
- Have 85%+ testing overall. Should aim for 95%+ test coverage for all current entities.
- Fill in assumptions with assumptions made in our assumption channel in discord. To do in the next meeting.
- Need to save uml into design.pdf and push it to gitlab repo.

What we assigned.
- Austin and Hoy finish off their current work and then move on to testing collectables and players.
- Hoy will work on method interact player method and bomb specifically.
- Will to finish enemies and move onto testing enemies.
- Lachlan to finish ZombieToastSpawner and move onto testing statistics.
- Enoch to finish EntityFactory and move onto testing goals and help others with testing.

Last Sprint 1 Session

2021/10/29 2:00 pm to 6:00 pm (240 mins)
Attendees: Austin, Enoch, Hoy, Lachlan, William
Location: Online (Discord)

What we did.
- To fix the tests. Bug with getting recipes.
- Got tests to 66% coverage.
- Fixed a lot of bugs.
- Did player tests.

What we discussed.

What we planned.
- Fix mercenary movement for milestone 3.

What we assigned.

Lab Meeting 6

2021/11/02 2:10 pm to 3:20 pm (70 mins)
Attendees: Austin, Enoch, Hoy, Lachlan, William
Location: Online (Discord)

What we did.
- Created list of everything that doesn't work for milestone 2.
- Helped William debug his frontend side.

What we discussed.
- The new milestone and how to design the features.
- How enemy battles work.
- Can hydra heal above its max hp.
- Players can do damage without a weapon.
- Having a new object for ticks, that store the previous grid and player movement.

What we planned.
- Finish of milestone 2.
- Use Dijkstra's algorithm for mercenaries.
- Add some uml changes if needed.

What we assigned.
- Lachlan and William will work on fixing enemies.
- Enoch to work on saving and loading, and if time, can work on reversing ticks.
- Austin to work and interact with players along with tests.
- Hoy to work on the new buildables and collectable entities in milestone 3 along with tests and UML appendages.

Lab Meeting 7

2021/11/05 2:00 pm to 2:25 pm (25 mins)
Attendees: Austin, Enoch, Hoy, Lachlan, William
Location: Online (Teams)

What we did.
- Check in with group mentor before meeting started.
- Check in with each other's progress.
- Created issues for milestone 3.

What we discussed.
- How and if we should fix observer pattern such that it doesn't pass as much information.
- Discussed other patterns to use, visitor for battles? States for potion effects? Decorator for terrain and floor tiles? Observer for inventory? States for mercenaries?.
- We decided on using states for mercenary, so bribe state, aggressive state, and mind controlled state.

What we planned.
- Mercenary to be finished by the next meeting.
- Save/loading to be finished by the next meeting.

What we assigned.
- Enoch is still working on saving and loading, as well as ticks or maze generation.
- Lachlan to continue working on spider and mercenary with William and to try to fix front end for the spawner as well.
- Hoy is working on milestone 3 buildables and collectables.
- Austin work on rare collectable, write tests for player interact and maybe battle for the milestone 3 items as well

Lab Meeting 8

2021/11/09 2:05 pm to 3:00 pm (55 mins)
Attendees: <mark style="background:red">Austin</mark>, <mark style="background:#fce5cd">Enoch</mark>, <mark style="background:yellow">Hoy</mark>, <mark style="background:#00ff00">Lachlan</mark>, <mark style="background:cyan">William</mark>
Location: Online (Discord)

What we did.
- Help fix a bug with sometimes failing to battle spiders.
- How mercenary and assassin inheritance should work.
- Drew a diagram of how the mercenary state pattern should work.
- Setup boss interface.

What we discussed.
- How logic works.
- Time travel should work, we should only allow the player to time travel once to d

What we planned.

What we assigned.
- Enoch to generate random dungeon and health bars.
- Lachlan to work on hydra and swamp tile.
- William working on assassin and mercenary bugs.
- Austin to work on battles and mercenary interaction.
- Hoy to work on time travel.

Lab Meeting 9

2021/11/12 12:10 pm to 2:25 pm (135 mins)
Attendees: <mark>Austin</mark>, <mark>Enoch</mark>, <mark>Hoy</mark>, <mark>Lachlan</mark>, <mark>William</mark>
Location: Online (Teams)

What we did.
-   Fixed bugs in mercenary.
-   Tested and played games.
-   Hoy demonstrated time travel.
-   Check in with the group mentor.
-   Worked on tests.

What we discussed.
-   Changing encapsulation and not violating the law of demeter.
-   Use of generic patterns.
-   Refactoring mercenary to state pattern.

What we planned.
-   Edit UML diagram.
-   Aim for 85% test coverage by monday.

What we assigned.
-   Lachlan will work on swamp tile, adding more tests, and try to fix some law of demeter stuff.
-   Enoch to do health and add the new entities to saving and loading.
-   Will to fix assassin.
-   Hoy still working on time travel.
-   Austin to do more tests for battle and keep updating interact and battle, will implement mind control as well.

Last Sprint 2 Session
2021/11/15 2:00 pm to 4:50 pm (230 mins)
Attendees: Austin, Enoch, Hoy, Lachlan, William
Location: Online (Discord)

What we did.
- Fixed bug on autotest with loading recipes and sent a request for a rerun.
- Fixed bug with tile swamps.
- Fixed movement errors with assassin/mercenary.

What we discussed.

What we planned.

What we assigned.