OOGA Team 11:

PAC PEOPLE

CS307 F21 with Professor Robert Duvall

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Plan versus reality

Contrast the completed project with where you planned it to be in your initial Wireframe and the initial planned priorities and Sprints with the reality of when things were implemented.

- The main changes to our project from our plan were we planned on implementing artificial players and game data producer and viewer extensions but actually implemented player profiles and save/load game data in the web.
  a. We made these changes because the two planned extensions were mostly backend work, which already had a lot to do in the final sprint, and profiles and database files aligned better with pacman since ghosts are already intelligent technically.
- Additionally, it took us longer than expected to implement regular pacman. We intended on completing this by the second, but ended up completing it during the final sprint. While this made it a little more stressful at the end, it proved our flexible design because we were able to quickly implement ghost pacman and super pacman without making many changes to the API.

Timeline of significant events

Show a timeline of at least four significant events (not including the Sprint deadlines) and how communication was handled for each (i.e., how each person was involved or learned about it later)

- BoardView works properly to show the pacman and pellets and allows pacman to move around
- Pacman can eat pellets and ghost is put on the screen moving randomly
- The Big Refactor: changed the model so agents get a GameStateData object instead of AgentInfo so the agent sees info about the entire game, not just itself. This allowed us to implement BFS movement for the ghosts
- Implementing player profiles

Active improvement

Describe specific things the team actively worked to improve on during the project and one thing that could still be improved.

- The team worked on improving communication throughout the project. At first, the different sub-teams did not update the rest of the team with their project, so people did not have a thorough understanding of the entire project. This made it difficult to connect the model, data, and view since the sub-teams only understood their parts.
- As the project went on, we had more meetings together and did more pair programming, which helped us bounce ideas off each other and fix/catch bugs more easily.

Team contract

Revisit your Team Contract to assess what parts of the contract are still useful and what parts need to be updated (or if something new needs to be added).

- One thing that was useful was having a regularly occurring meeting (Sunday nights) that was always on all our schedules. Because we have a large team, it was sometimes difficult to find other times to all meet together, so it was helpful to always have this one planned.
- We could update the part about internal deadlines. We worked more towards the course's external deadlines instead of following the internal deadlines we set. These would be helpful in staying on track for the external deadlines and would prevent some groups waiting on other people to finish their work before moving on.

Lessons from project management

Individually, share one thing each person learned from trying to manage a large project yourselves.

- **Asher Early:** The value of breaking down large deadlines and goals into smaller sub-team goals and deadlines, then further into individual goals and deadlines.
- **Dane Erickson:** I learned the value of sub-teams within the larger team. It was helpful to have a partner on the view so we could bounce ideas off each other before posing questions to the entire group.
- **Dania Fernandez:** It is essential to communicate consistently with team members working on parts of the project other than your own to ensure that you are on the same page about connection points between controller, model, and view.
- **Evan Kenyon:** It is always better to work a little bit each day on the project throughout the week than to work mostly only leading up to a deadline.
- **Kat Cottrell:** Good planning at the top of every sprint saves so time over just trying to work through issues in
- random order.
- **Michelle Zhang:** Communication is very important, and there are a lot of moving pieces, so always being as clear as possible, including and especially when you think you have too much on your plate is very important for the team to be able to flex and cover for you.

Lessons from Agile/Scrum

Individually, share one thing each person learned from using the Agile/Scrum process to manage the project.

- **Asher Early:** The importance of frequent check-ins when working on large teams where members have rapidly evolving responsibilities.
- **Dane Erickson:** I learned the importance of meeting in person to quickly go over past progress, current problems, and near future goals. It was helpful to have many short meetings compared to a few long meetings.
- **Dania Fernandez:** Using issues supported us greatly in staying organized, as well as encouraging us to think through what work had to be done each week more thoroughly than we otherwise would have.
- **Evan Kenyon:** Creating and maintaining the product backlog, specifically through weekly sprint planning meetings and gitlab issues, was key to managing the project
- **Kat Cottrell:** Sprint planning was awesome for delegating issues so that we could know what parts of the code we could depend on working by the end of the sprint.
- **Michelle Zhang:** Setting small goals, and not being afraid to reevaluate them mid-sprint if it looks like they're not going to be achieved by the end of the sprint.

Lessons on positive team culture

Individually, share one thing each person learned about creating a positive team culture.

- **Asher Early:** A positive, light-hearted team culture reminds everyone that at the end of the day, despite class deadlines being stressful, we are all human and can support and encourage each other.
- **Dane Erickson:** Keeping the atmosphere light-hearted. When things weren't going our way it was easy to get frustrated, but it was helpful when we could laugh it off and try a new solution instead of losing hope.
- **Dania Fernandez:** Providing each other with frequent encouragement and moral support helped to keep our morale up even when facing frustrating bugs or tight time pressure.
- **Evan Kenyon:** Trusting each other's code, specifically by not changing it unless given express permission, was key to creating a positive/respectful team culture.
- **Kat Cottrell:** Having teammates who were super kind and respectful made this the best project I worked on in this class.
- **Michelle Zhang:** Believing in the other person's code and respecting it, not changing it out of the blue, is very important to avoid conflicts, which is something I thought we did well this project.

Lessons on communication and problem solving

Individually, share one thing each person learned about how to communicate and solve problems collectively, especially ways to handle negative team situations.

- **Asher Early:** It's extremely important to check in almost daily with people whose code you are interacting with. The time you save by avoiding large merge conflicts is invaluable.
- **Dane Erickson:** It was great having many team meetings in person because it allowed us to pair program. When we weren't all able to meet in person, we tried to have frequent Zoom calls since communicating over text can be difficult.
- **Dania Fernandez:** Meeting in person frequently worked well for us since it enabled us to have fewer miscommunications and make quicker progress.
- **Evan Kenyon:** Committing to the decision made by the majority of the team after trying to reach consensus was key to solving problems collectively and avoiding unhealthy team conflict.
- **Kat Cottrell:** Being there in person is so important to good team dynamics and effective problem solving. It's nowhere near as effective to just keep in touch over text.
- **Michelle Zhang:** Communicating often and ideally in person or at least in a call was the best way to quickly solve problems, as well as that when problems arise it's better to focus on solutions rather than blaming or pointing fingers.

GAME OVER

THANKS FOR A GREAT SEMESTER!