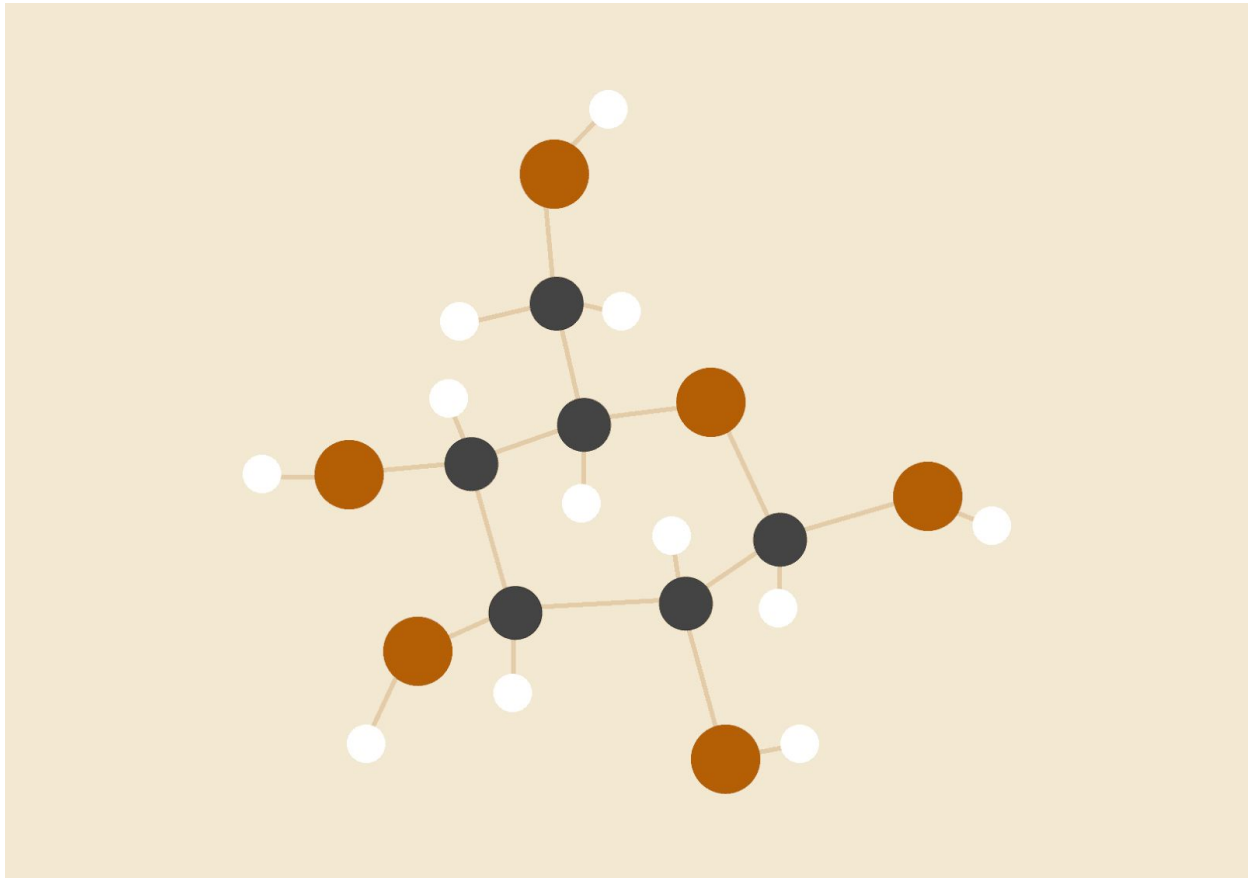# Software Lab EE461L

Team A7: Board Game Database

TEAM A7

10.09.2020

Cedrik Ho, Allegra Thomas, Grant Ross, Sanne Bloemsma

INFORMATION

GCP Deployed App: https://fall-2020-ee461l-teama7.uc.r.appspot.com/
Github repo link: https://github.com/UT-SWLab/TeamA7
Team Canvas group ID: A7

Team Members:

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MOTIVATION AND USERS

The motivation of this project was to create a cohesive web application for users to browse board games and be able to find out more about board games, their publishers, and various board game genres. It was to some degree inspired by various board game hobby pages. However, it is our hope that this web application will be more intuitive to use and be less fragmented in terms of genres and brands of board games hosted.

We believe that this web application will be useful to a wide range of demographics and be particularly useful to individuals who regularly play board games with others. We anticipate that access to this website will also vary from mobile phones, tablets, personal computers, and other various devices with internet connectivity.
Thus ease of use and flow of information is highly important to the team.

USER STORIES

Our user stories were all hosted on Github. The following link will show you each of the user stories created and the state it is in.
https://github.com/UT-SWLab/TeamA7/projects/1?fullscreen=true

USE CASE DIAGRAM

DESIGN

> -Design Explanation:
- UML

MODELS- describe your models, data and multimedia included and sources

The project has three distinct models:

TOOLS AND FRAMEWORKS

The main frameworks for this project are as follows:

- BootStrap4 - used in **Phase I**
  - Used to to create basic CSS structure and mobile development.
- GCP (Google Cloud Platform) - used in **Phase I**
  - Used to host the deployed site and also a third party cloud storage solution for code and future data

- GITHUB - used in **Phase I**
    - Used for version control and team management. Used as a host for issue tracking and User stories.

PHASE I REFLECTION

This initial phase was a large first step in developing a cohesive and modular web application. The team as a whole was firm in making decisions and few conflicts arose.

As a team we knew coming in that none of us had much experience with a larger web application. Therefore early on it was not too surprising that we had trouble with creating a solid basic framework with correct inheritance. Specifically we had issues with extending templates without overriding existing content and achieving consistency of grids and CSS elements across model pages. To solve these issues, we re-worked the Flask framework from the Bootstrap4 tutorials and created a default CSS sheet.

We struggled early on with creating a basic file that could easily be given to each of our models. This lack of planning caused some blockers for other team members early on. Once we adopted a more religious use of Githubs user stories and a true Scrum asking the three key questions, these issues were immediately solved. There were also some unexpected issues in terms of elements behaviours and resizing when the page was not at its default width. We created a larger template and standardized cards width and height to create the proper ratios and re grouped data so that growth of the page was as expected.

When deploying the app there was some confusion amongst naming of the python file, so after weeks of using "app.py" as the name of our file in order for it to properly deploy on GCP and be compatible with the ".yaml" file it had to be renamed to "main.py." Although it caused some confusion initially it was easily resolved after reading some documentation for GCP.

Overall, I believe that due to our lack of experience in web development, we struggled to predict certain issues ahead of time.The rather quick and responsive nature of web applications is a new area of software development that the team as a whole has had to get adjusted to. We feel that our use of github issue tracking and clear user stories were very beneficial in helping create a quick and straightforward process for development goals. We are excited and believe that Phase II will be even expansive and rich in information and features.

Despite the challenges that arose, we were still satisfied with some aspects of our implementation and workflow. Our weekly stand ups helped us track progress and stay accountable, and our fair breakdown of work based on the models chosen helped us accomplish our goals in parallel. We believe that each individual will be considered the "manager" of the model they worked on in Phase I, since we found a clear assignment of responsibility for a specific model greatly improves communication and productivity. Also,

interactions with API's went well, as we have registered our company with the API providers and access to the API's seem to work fine. While we did hard code information, we see a clear path to filling out all three models using our APIs.

As stated earlier our team work structure and communication has been a source of pride and success for the team as a whole. We believe that our team contract has been enforced and integral to our quick resolutions and continued respect for each other's ideas and work. Overall, this reflection has been greatly beneficial in helping the team analyze the issues we have overcome and the weaknesses we still hold going forward into phase II.

Five Things We Struggled With:
1. Achieving consistency across model pages
2. Extending templates without overriding existing content
3. Adjusting page content with page resizing
4. Using one virtual environment between team members
5. Predicting issues ahead of time

Five Things That Worked Well:
1. Dividing work between models
2. Getting information from sources with APIs
3. Setting up the website using the Bootstrap tutorial from class
4. Syncing code with GitHub
5. Helping each other with code issues in meetings

CITATIONS-What sources did you use? Provide links to tutorials, books, Stack Overflow pages that you used and indicate how each source was used.

"BootStrap Tutorial." *Bootstrap 4 Tutorial*, www.w3schools.com/bootstrap4/default.asp.

"Web Development 101." The Odin Project www.theodinproject.com/courses/web-development-101/

"Google Cloud Platform Tutorial" GCP

https://console.cloud.google.com/getting-started?tutorial=toc

Homework 3: Team 7 Contract

Team Members: Cedrik Ho, Allegra Thomas, Grant Ross [Phase I Lead], Sanne Bloemsma

In this document, we will establish our expectations for team communication, conflict resolution, and task allocation, as well as detail the strengths and working styles of each team member.

Team Communication

Our team's primary forms of communication will be Slack and Zoom meetings. We will use GitHub, integrated with our Slack channel, for code management. Our team will meet through Zoom twice a week, from 3pm-5pm on Wednesdays and 10am-12pm on Fridays. During meetings the team will define clear goals for each team member to complete before the next meeting. We will also hold daily standup meetings via Slack, in which each team member briefly details what they have completed since the last meeting, what they will complete before the next meeting, and any problems they have with their current tasks.

Team Strengths and Working Styles

For the team's strengths and working styles, we have only met once so far and therefore are not familiar with each other's abilities yet. We have identified our own strengths and working styles as well as where we may work really well together or may have points of conflict.

Strengths

Cedrik - Python back end testing and frameworks. Open to any task.

Allegra - Document editing, self-guided learning and research. Familiar with Python and Java.

Grant - Giving constructive feedback. Familiar with Java and Python. Very familiar with Github.

Sanne - Self-motivation, self-guided learning, and following instructions. Familiar with Java.

Working Styles

Cedrik - Clear deadlines and expectations. Individual technical work but frequent team meetings to go over all aspects of the project. Favors a clear hierarchy of task importance and order of completion within personal tasks as well as team tasks.

Allegra - Break tasks up into smaller parts and set a schedule for task completion. Complete individual work in chunks with clear goals and deadlines and get feedback from the team before moving on to the next chunk.

Grant - Starting a project early, working on it in small bursts leading up to the deadline. Make sure each member has a clear idea of what they are working on in order to avoid issues caused by lack of communication. Enjoys paired-programming occasionally, but only for larger, more complex tasks.

Sanne - Working on tasks for one to two hours at a time and compiling a project over a set period of time. Prefers to by the person typing while the other person observes and gives feedback or suggestions.

Conflict Resolution

Since conflict usually stems from a disagreement on how something is going to be done or was supposed to be done, we will be explicit on what tasks we are working on each week, who is responsible for that task, and what all team members expect from that completed task.

If a team member disagrees with actions taken or not taken by another team member, the former will initiate a private conversation with the latter to discuss a compromise. If this meeting doesn't resolve the situation, then the team member will discuss the issue with the rest of the group. If a team member disagrees with the direction, actions, or lack of action by the group, they will address their concerns at the beginning of the next meeting in a constructive manner.

For general decision-making, we will adhere to a strict all-or-none voting system and three-strike disciplinary system to ensure order. If a single team member does not agree with a decision, the proposal cannot pass. When this situation arises, everyone will collectively work together to find a compromise the team can progress with. Additionally, since there is no hierarchy within the organization, discipline for poor communication will be handled using a three-strike system. Actions that will receive a strike include failure to have work ready by a clear deadline and missing a meeting with no advance notice. On the third strike, we will communicate these issues with the professor or a TA to resolve the problem.

Task Allocation

Task allocation will change throughout the course of the project, but initially we have decided to break up the project and responsibility as follows:

-Documentation and Deliverables [All]

-Testing and Quality Assurance [Cedrik Ho]

-Front End UI UX [Grant Ross]

-Data Management, Manipulation and Metrics [Sanne Bloemsma]

-API Calls and DB Management [Allegra Thomas]

Expectations of Team Members

- Be responsible and familiar with their own workload and capabilities outside of this project and this class
- Complete tasks and portion of assignments as promised, both in respect to time and quality
- Be comfortable with voicing their concerns or suggestions for improvement when it comes to the project or pair programming
- Be comfortable taking criticism
- Be understanding of others with less experience who may not be as familiar with the information needed to complete portions of the project
- Be understanding that others' experience does not mean they are responsible for the majority of the project and they are responsible for making sure they do their fair share of work