



# **SAN JOSÉ STATE UNIVERSITY**

**CMPE 202 - Team Project**

**Project Group # 3**

**Team Name : Magicians**

**Week #6**

# CS Unplugged Activity : Error Detection

<u>Team Member Name</u>	<u>Section</u>	<u>GitHub ID</u>
Miao Shi	3	MiaoS
Chen Shi	3	Chen202
Carlos Martinez	4	carlo379
Jayam Malviya	4	Jayam-Malviya
Prateek Sharma	3	prateeksharmamay

<b>GitHub Repository</b>	<a href="https://github.com/carlo379/Magicians">https://github.com/carlo379/Magicians</a>
<b>Task Board</b>	<a href="https://waffle.io/carlo379/Magicians">https://waffle.io/carlo379/Magicians</a>
<b>Sprint Task Sheet:</b>	<a href="https://drive.google.com/open?id=1JN3y5G12EQSm2q9p0jQpo4-95bcFwT67hmc98oagL9k">https://drive.google.com/open?id=1JN3y5G12EQSm2q9p0jQpo4-95bcFwT67hmc98oagL9k</a>

**Team member:** Miao Shi

**XP core value:** Communication

In the passing week, we discussed and decided to introduce a ranking board to our game. In the last meeting, we picked up the white board as one of our communication tools. In the past meetings, we planned to do this several times. However, either there was no whiteboard in our meeting place or none of team members brought a dry-erase marker. I feel that the whiteboard is good way to communicate and delivery the ideas in mind. By drawing diagram or writing down the task, all the members can visually feel the thoughts, and easily adjust the things the board. We did something like this once but using pencil and paper. Compare to that, white board is bigger that all members are able to view the board in relatively longer distance; while with a pencil and papers, all team member have to get very close to order to read it, and some members have to view it upside down. Using papers, normally, only one member will dominate writing; while one can easily take over the white board by picking up a marker. Therefore, whiteboard can increase the interactions between the team members.

Beside this, communication between team members is smooth. We keep following the rules that for major design problems, we will meet in person; urgent code blocks, we will call each other; and other issues, we send a message in group chat that normally, we make sure to check at least once a day. We are trying to push ourselves to do commits to repository when making local source code changes, ensure others aware of that, in order to prevent code conflicts.

**Team member:** Chen Shi

**XP core value:** Courage

This week I finished Theory world. This is a world to introduce the Error Detection theory to the kids so they can understand the real meaning of this game while playing happily. I made three pages to explain how Error Detection can be used in this game to find the flipped card easily. There are navigation arrows to lead the player go through each page. The principle behind the navigation arrows is same as the navigation between different worlds. Most of my work time was spent on the design of the user interfaces. The following task is to link this world with the Main Menu world.

In our weekly meeting, we agree on that we need to understand the design patterns better so we can figure out which five patterns we are going to use in our game. We also decided the multiplayer function in our game will be a scoreboard to show the ranking of players and their scores.

Based on the features that we have at hand and that we plan to have, we made a flowchart together, which will be the draft version of our activity diagram, basically showing the workflow of our game. The game will start with a short animation with music, followed by the Main Menu page (Partially done). On the Main Menu page there will be four options: Play, Demo, Theory, and Scoreboard. The Play option will let the player play game (Partially done). The Demo option will show player how to play this game. The Theory option will show Error Detection theory (Done). And the Scoreboard option will list the score ranking of the players. With this activity diagram, we are clearer about what parts are still missing and need to be worked on. It is a really helpful tool.

The good news is that I let my son try playing our game at home and he was so interested in it and definitely loves it. This has given us lots of courage! I believe our game will bring kids a happy learning time!

**Team Member:** Carlos Martinez

**XP core value:** Eliminate Waste

This week we did a review of the accomplishments that we have completed up to this point. We found that our project had already implemented all of the original features that we planned. Then, we discussed how to adapt our project for multiplayer capabilities and how to eliminate waste by planning on including our different design patterns in the multiplayer game structure. By doing this we ensure that we didn't have to go back and change the design to adapt it to with multiplayer capabilities.

As a team, we discussed how to make the game more appealing to children; to achieve this we talked about adding more images and animations that will keep children engaged and interested in the game. Adding images and animations is important to make sure the main idea of our game is transmitted in a clear and fun way, helping us in our main purpose of teaching children important computer science concepts.

We also reviewed our process of pushing and pulling code from our repository at Github. In order to be more efficient and reduce waste, we reviewed that we will be pushing frequently, at the end of each work day, to ensure all new code is available to every team member. Also, we talk about pulling any new code before starting coding again, to have the latest version of the code base. By doing this, the code conflicts and waste are reduced.

Then we planned on how to make our game multiplayer ready. We agreed that in order to make it have those features we will provide a scoreboard where the users will be able to compete with each other. To do this we will have to move most of the application logic to the backend server, where it will respond to user's request and coordinate actions between players.

Finally, we reviewed the waffle IO board and sprint task sheet to ensure we were on track and with a good burndown chart.

**Team Member :** Jayam Malviya

**XP core value :** Simplicity

This week we integrated our game with different worlds that we have created for demo & actual play. By the end of this week we have finished worlds for play and theory. demo world is planned for next sprint. We also refactored our code and some more changes after watching the demo of actual CS unplugged activity, we found that we have missed an important transition in our game to keep the kids attached to the game, Thus we decided to refactor a bit our game and made those changes. As with every refactoring, we also remove some functionalities from various classes and also renamed few classes, these new names are more relevant in the multi worlds context that we have ready now.

The team has done very well in this week and has shown a great motivation and responsibility on the modules they have owned. We were stuck at one point in the animation of one component at that point we have to seek help from the teammate who has worked in the animation part previously. She readily helped us and even went ahead to take the module under herself for further modification.

Team has also brainstormed on the idea of multi players part this week. It was a very involving exercise where each team member went to the white board and explained what the ideal multiplayer game should look like. Consequently after lots of brainstorming we were able to come up with a nice strategy to maintain multiplayers in the game.

Team has also started to look into design patterns to be included in the game and we as a team brainstormed on that as well. In the first view itself we are able to identify few scenarios in which design patterns were ideal fit. We hope to move ahead with same spirit and finish our game on time.

**Team Member:** Prateek Sharma

**XP core value:** Feedback

This week I have finished the integrating of demo play and menu world. With different worlds coupled together we are now ready to move or game to cloud. The team has discussed intensively on how we should take our game for the multiplayer scenario. our weekly meeting was the right place to discuss this part, as each team member can give feedback to the idea to the approach right away. we had a very fruitful discussion in which we gathered around the white board and each team member gave valuable inputs and expressed them on the whiteboard. after long discussion team finally came up with a beautiful way to keep track of multiple players playing the game.

One of the team member also completed the theory world. It was very beautiful and everyone in the team loved it in the demo. We all also appreciated her efforts as she did it individually and with such perfection. All the team members immediately gave her positive feedback for her work. There was also one point we observed where we find out that two of the team members were accidentally working on the same task. And in the meeting the team member gave this feedback, we addressed it immediately as the two members agreed to avoid such overlap next time in the future. we also reviewed our code commit and pull methods once again and revamped the team members with the code commit contract.

On the whole this was a very fruitful week for the team as we have now completed our different worlds. we are now very confident that we can complete our game and make it multiplayer able for player to compete and play. Also we realised again the value immediate feedback. With this experience in our bags we can proceed to your actual goal.