CMPE 202 - TEAM PROJECT - WEEK #1

TEAM 8: ILLUSION

Project Group #8

Team Illusion

Name	Section	Github Id
Ashna Sebastian	04	AshnaSebastian
Neha Kumar	04	nehasingh2102
Rakesh Datta	04	rakeshdatta
Vaishampayan Reddy Pathuri	03	vaisham92
Vimal Muraleedharan Nair	03	vimalnair88

Team's GitHub Repository:

https://github.com/cmpe202-team8/courseproject

Team's Task Board:

https://waffle.io/cmpe202-team8/courseproject

Team's Kanban CFD Google Sheet:

https://docs.google.com/spreadsheets/d/11yxg2k4eyZdq_qlcoXQQghDujDM73ENaFXhOg5Yt dbI/edit#gid=991511345

Contents

Journal Update from Team Members

1. Ashna Sebastian

Core Value: Communication

CS Unplugged is a collection of activities which are designed to teach school children computational thinking. This week we researched on some of the topics given in the website. The topics which I researched are Binary Numbers, which is an activity designed to teach binary to decimal conversions, Image representation which is a game designed to understand how images are displayed in a computer screen and Text Compression where we learn how to store a large amount of data in a small available space in computers.

I would like to discuss about the core Kanban Principle, Communication. Our team met twice this week. During the first meeting, we created the GitHub repository for the project, created waffle task board and cloned the CFD sheet to google drive. During the second meeting we also discussed the topics which we discussed and chose Binary Number representation as the topic. I feel that were able to communicate to each other and all the team members participated well. We were able to discuss and agree about the project topic quickly. We have also decided to continue having the weekly meetings. We have also created a group in slack to communicate with each other.

After agreeing to go forward with the topic Binary Numbers for our project, we discussed and created tasks and also assigned the tasks to the team members. The tasks are also updated in waffle and CFD sheet. I am assigned to the task how to teach binary to decimal conversion in an interactive online web page. We have decided that we will have an option to learn the binary conversion before starting the game. I am working on creating an interactive and interesting way of doing this.

2. Neha Kumar

Core Value: Simplicity

Met with team and discussed on topics from CS unplugged activities. We brainstormed on few topics like Binary Numbers, Searching algorithms, Databases etc. After having a full-fledged discussion, we decided on one topic and are working on it. Individually we have split up the work and are thinking of all the scenarios for that task that could come during development.

I am working on Multi-player game flow; the game/application should be played by multiple players on whose system the application is setup. It should be like a quiz where multiple people take the same quiz at the same time. Time is fixed for all and also the number of questions. If there are three players and the player who enters the right answer first, scores for that

question. If there is a tie or multiple player answer correctly, everyone who answered correctly gets the score for that question. Although we still need to brainstorm on this. Whether we will be constraining time as well.

Every task is difficult in beginning unless we break it into small and simple tasks and work as a group. As a team it is very crucial that all the team members are on same page and we all work towards the same goal. During initial brainstorming sessions, we discussed on many ideas and how it can be plugged to the popular games today like Pokémon Go etc. How we can transfer the scores of our game to Pokémon scores or vice versa so that every kid would want to play this game. It was fascinating and we all got excited since this game is Hot-Cake in market and who doesn't want to play it. But as we discussed, we came to conclusion that it is doable but it will take more time than what we have in hand for this project. So, I suggested that let's do the basic problem first "Do the simplest thing that can possibly work" and fancy features of transferring scores from one game to other can be done as future enhancements. First, focus on the problem statement of developing a game for kids to understand Computer science related topics which is easy to play and explains the CS concept. They should be able to understand the concept after playing the game. Any software evolves gradually. There are multiple releases for any software and in every iteration, company modifies and refines the product. Adds new features and removes the feature which is not used. For example, Alexander Graham Bell never thought of developing a Telephone which a smartphone a can do today. He would have started as solving problem of easing the communication problem. That was ages ago, and now today we have IPhone 7 which has features people have not even dared to imagine at that time. This development came gradually, the first mac laptop was a basic one and once it started capturing market, it has released many versions by targeting different set of customers.

So, simplicity is the key to success and developing in stages. I personally implement this in my personal life as well. Deliverables are important in any software development and if you don't have anything as working to show to the client or say Professor, they will not believe and trust on your big promises of developing a hi-fi software and prototype that you show them on paper. They need something working so that they can give us more time to work and develop something which we promise. And by doing feasibility study and considering constraints like schedule and other factors in mind we are firstly implement the Simple idea of developing a game for children.

3. Rakesh Datta

Core Value: Feedback

Feedback is really important in order to:

- Understand the correctness of our work.

- Understand if there is any better way to improve our performance.

- Understand if there is any redundant work happening.

- Understand others perspective.

For this we have come up with a simple feedback mechanism. We are taking up ownership of individual tasks, coming up with the desired output (design flows, use cases etc.) and committing them in the 'user' folder under the 'misc.' folder in GitHub.

Thereafter, we call for a peer review meeting where all the works are critically reviewed and approved by the complete team. Without this approval this work is not allowed to be committed to the main project folder. This ensures the project correctness, lack of bugs in the future, rapid progress and definitely knowledge sharing for our own benefits.

4. Vaishampayan Reddy Pathuri

Core Value: Respect

A lot of us where unknown to each other before forming a team. We had good communication along with respect to each other's opinions in order to build a game. Members of my team have varying amounts of experience. From 8 years to 18 months. In spite this everybody in the team where able to express their opinions regarding the project, ideas, features etc. Not only this, while we were brainstorming in two of our meetings we had sessions where people were refuting against each other regarding various features of the selected game. This helped break the ice of forming a new team and the end outcome was a team wide accepted set of beliefs and decisions. After these two meetings all team members were on the right track and everybody understood the in and outs of all the decisions we have come to in the first week. What I liked most is that, highly experienced members of the team were ready to listen to the other people clearly.

As a team we have discussed about what topic will be highly beneficial to people trying to learn about computer science. Everybody in our team took time to research about the topic and came with different ideas. These ideas had solid research behind them and we had one good hour of discussion without hurting anybody. At the end of the one hour we decided to go with "Binary Numbers" as our team project topic.

During our next meeting we have discussed about the gameplay, features etc. of the game we were about to design in the due course of 8 weeks. One of us game a rough sketch or idea about how the game would proceed and everybody in the team worked on that foundation providing a lot of improvements/suggestions. At the end of two hours of brainstorming and accepting a lot of ideas from all of them and treating every suggestion with respect, we ended

with a wonderful set of scenarios that helped us fix the outline our gameplay. We are a lot excited about our team and looking forward to working for the next week.

5. Vimal Muraleedharan Nair

Core value: See the Whole

This week we officially started with the Group Project related activities. We had two rounds of discussions this week, and selecting the project was the main topic of discussion. We brainstormed lots of ideas from CS Unplugged website. Few ideas were related to Binary Number Conversion, Searching, sorting etc.

I would really like to stress on 'See the Whole' core value which I felt was taken care throughout the project related activities. When we were discussing about the game to select, even if we finalizing on a game, we tried to see the complete picture of the idea. Rather than just concentrating on the idea, we tried to visualize the game as a whole. Discussed about the challenges we will come across, how we can solve that, feasibility of multiplayer option, synchronization issues etc. By doing so we could narrow down most of challenges in the first place itself, which would be very beneficial from the project point of view. The early we know about the possible pitfalls, the more time will get to work on the same and fix the issues. Even from the requirements point of view, the concept of 'See the Whole' during the discussion has helped us to collect majority of the requirements during the discussion phase itself.

After finalizing the project idea, we decided on how we would implement the idea as a Learning and Game Interface to the students. Both of these things should be kept in mind while designing the project, as those are the key items that we deliver to our users. This has helped us to have an idea of infrastructure design and Data requirements because of the 'See the Whole' approach followed during the discussion phase. The same advantage can be propagated to next stages of development starting from design. By visualizing and discussing about the whole of the project, we could figure out the architectural concerns, design issues, and other technical issues that we may end up in. Because of this core value, we could figure a solution for the synchronization problem that we may face during the implementation. So by virtue of 'See the Whole' approach we were able to track down lot of issues and challenges that we might face later during our development cycle. This approach will definitely help us understand and solve the challenge before they happen. This will eventually facilitate a smooth development life cycle.