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San José State
UNIVERSITY

CMPE 202 - TEAM PROJECT - WEEK #6

TEAM 8: ILLUSION

Project Group #8

Team Illusion

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Team's GitHub Repository:

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

Team's Task Board:

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

Team's Sprint Burndown Google Sheet:

https://docs.google.com/spreadsheets/d/1hWOQLq6E-2FrsQg6gd6JcvweN0vdCQ-lkXzAxPu0m7w/edit#gid=0

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Journal Update from Team Members

1. Ashna Sebastian

Core Value: Communication

We are in week 6 of the Team Project and we are following Scrum methodology. As planned we had 2 weekly status meetings as well as another meeting to integrate and test all the new features. The Sprint Planning meeting, the Daily Scrum meeting, Sprint review meeting and the Sprint Retrospective meeting are all mandatory in a Scrum and these meetings help improving effective communication between the team members. Communication between the team members is very important to understand the common goal and meetings help in providing feedbacks and thus helping in continuous improvement of the Product. From the weekly meetings conducted by our team, I have understood that communication is helping us go in the right direction and we will be able to deliver the Project on time.

This week during the first meeting, we discussed about the design patterns which can be used in our project. We are using MEAN stack in our project. So the design pattern implementation in node js is slightly different from the design pattern implementation in other languages like Java. We had a discussion with professor and he approved that we can go ahead and implement the pattern in node js. This week will study the design patterns and the coming week we will discuss which design pattern can be used for which node js API service. We also need to divide in such a way that each person in the team should take a design pattern and implement on his own. Another important topic which came up for discussion this week is the division of the Project deliverable. Each person in the team should own one of the Project deliverable. I am taking the ownership of the deliverable UI Wireframes. Since I am working more on the front end, it will be easier if I take the ownership of UI Wireframes. My team members also agreed upon this.

This week, Me and Vaish have completed the home page, login page, register page and the game level selection page. We have also designed the game page and will be start the coding for the game page next week. Designing the game page was a challenge because the page should have a timer, it should be easy for the user to understand how to proceed and submit the answers. Any web application UI should be designed such that the pages are user friendly. We have also created a template for angular js controller. This week we also tested whether we are able to connect to the backend APIs from the html pages. We will write the angular components of completed paged next week so that we can start integrating the back service. As of now, we are able to follow the project plan and expect to complete the project within time.

2. Neha Kumar

Core Value: Simplicity

This week we met for our project discussion and since we have already segregated the work. Everyone was working on his own task and discussing the idea and explaining what he was doing. This makes the team work towards the same goal. We also had knowledge sharing session, in which other team members helped when I was stuck at some point. The framework is new to me, and I really appreciate that the team is working together and helping. At the end it is team

synchronization and learning which matters.

I continued to work on backend server code for enhancing the user login functionality. Initially, the design for creating a login for user was by taking inputs like user name, email, password etc. But as we developed, we realized we need to put restrictions for registering only once with an email id. After successfully implementing and testing that feature, I am continuing to work on developing services for Binary test game. This service will fetch the question from database and display it to user. Second service is for capturing the response from user and saving in database. Third service is to find the score and updating the scoreboard depending on the scores of the user. I am still working on it since we need to analyze how the scoreboard will be updated. Will it be refreshed every time the user submits the test or it will be refreshed only when a user clicks on the link to view scoreboard.

Developing a Simple application is not same as developing an Easy application. The application should be simple enough for kids to understand the logic of Binary number at the same time interesting and compelling enough for them to challenge themselves of their understanding.

3. Rakesh Datta

Core Value: Feedback.

In order to capture the score of a game, it is imperative that an identity is assigned to the player. This identity will be used to decide various features of the game, vis-a-vis to store the score in the database or not etc.

There are two ways of capturing the player scores:
 1) User plays as a guest and the scores are stored in non-persistent browser memory till the time the session is on. The moment the session is killed, this data would not exist.
 2) User authenticates itself and logs in. The scores in this case are stored in the database and attached to the user. Irrespective of the session, player can check the historical score whenever he wants.

For the 2nd option, we have chosen single-sign-on mechanism. User can optionally create a new login with this new app. However, he can also use an identity server like (gmail, facebook etc) to authenticate them. This eradicates the hassle of creating a new login. In order to implement the SSO mechanism, I have started exploring and using passport.js.Passport.js gives the boilerplate to use various well-known identity verification servers like Gmail, twitter etc.

We decided to start with the Passport-Facebook strategy followed by passport-google strategy. For that I have started working on implementing it by referring to the boilerplate https://github.com/jaredhanson/passport-facebook.

XP Value (Feedback):

Passport.js has dependencies on node js express module. Also, in order to use passport, we need to first determine the strategy of our application, which is nothing but the type of authentication our app wants to implement. To decide this all the team members met and brainstormed. Although it is necessary that a SSO allows multiple authentication, it is a good

approach to start with one strategy and keep implementing others recursively. The team provided interesting feedbacks on the strategy I was adopting. We discussed on popularity of the identity server, the target users of our app etc. Out of this review session we boiled down to the strategy called Passport-Facebook. So, to start with we decided to integrate with Passport-Facebook. This will allow the users authenticate with existing Facebook account instead of creating a new username and password. It was quite an interesting task so far on the project as we were really thinking like the user not as the developer and providing review comments accordingly. In my opinion this is so far the best exhibition of the XP value 'feedback'.

4. Vaishampayan Reddy Pathuri

Core Value: Courage

As we are nearing our deadline, the progress of our work is also rapid. We are meeting once a week and we plan to increase this to multiple times (3 times) a week as the integration of our works need to happen. Following the midterm, the second part of the project development needs to be done following the scrum methodologies. So, we are expected to conduct all the scrum meetings like daily scrum, review, retrospective etc. The important core value of courage should be maintained by all members of the team in all these meetings.

During this week, me and Ashna are continuing the UX development of the other remaining screens. The UI wire frames for the other screens are planned well during the week. AS materialize has lot of open websites developed me and Ashna browsed to them to find even more interesting features to create our game website. This is to ensure that people visiting our website for the game will get attracted with the UX and get stuck to it. This R&D work needed lot of courage to tell before my team mates as the project work time is being spent for research of new topics while the project work is not progressing from our end. Ultimately after lot of consideration and discussion, we have decided to spend two hours on this and go ahead with the creation of pages. There were couple of fixes that are to be made. Me and Ashna sat together and fixed the issues together. She pushed the code. This week we finished the four important pages, landing page, login page, sign up page, game difficulty level page. The next week we plan to work on main Game page.

Vimal, Rakesh and Neha are working on the backend development. They have done considerable progress with the backend development. Rakesh is working on an interesting feature called single sign on or simply called the "Three legged Oauth2" login. This will enable us to use existing technologies for login/register and making sure that the critical component of logging is done securely using the libraries provided by standard oauth2 providers like Google, Facebook, Microsoft, Yahoo etc.

5. Vimal Muraleedharan Nair

Core value: See the Whole

We made good progress related to API development. The overall development process has been divided page and each person from the backend has taken each of the pages. I am currently

working on the Login related API's. Majority of the functions related to Login includes register, login, session creation, Single sign on. Each of these functions are handled by separate API's. The major difficulty was faced while creating API for Single Sign on, which is obviously a complex module. There are lot of factors which are taken into consideration while creating SSO, since it's more of a third party service. We have signed up with the google developer console to get access for the SSO for Google Account. This will ease out the process of creation of registration, basically the user can skip pass the registration with the use of Single Sign on. Hence we choose it to be included in our service list.

Apartment from SSO, all the login related services are hitting the Mlabs service which is hosted at the mongo cloud. This service is highly scalable and elastic so that we can scale it as and when needed. When at some future time when we want the application to be used by lot of users, we should not restrict our services in way it restricts scalability. So we took take of that concern in our design. All my services required lot of validation rules, which is another painful task while creating all the services. We tackled this concern by having a meeting and discussing all the validations related aspects and collecting all the items before starting with the development. This way we made sure that we are covering all the aspects of the proper validation. This indeed was a fruitful approach in delivering quality software product to the end user. Being a responsible software engineer, we have to make sure there are no setbacks in our product related to validation before deploying the product. So in all these project related activities we made sure that we are thinking about the future, when we do even a small task. We are maintaining proper documentation for all the project artifacts and whenever we have discussion we make sure that rather than solving the problem, we fore see similar problems so that we can avoid occurrences of instances in future. This is clearly being an example of See the whole capability of our development process. We are indeed very happy to say that we give attention to even minute level details during the development process. All these definitely attribute to the 'See the whole' core value. We are smoothly progressing to the finishing of the project; the expectation is that we will wrap up the total project by third week of this week. We do plan for giving some time for the complete system testing and also releasing the product to a small set of people to get feedback from the end user.