SE 491 WEEKLY REPORT 3 ***Date: 9/20/16-9/25/16***

Group number: ***01***

Project title: ***Visualization of Earth Modeling System (Project 1)***

Client &/Advisor: ***Prof. Johnny Wong (Advisor) & Prof. Chaoqun Lu (Client)***

Team Members/Role:

Kellen Johnson – Team Communication Leader

Anish Kunduru – Team Leader

Julio Salinas – Team Concept Holder

Eli Devine – Team Webmaster

- **Weekly Summary**

This week the team met in the middle week to discuss the fact that Google Earth is depreciated, and we should likely look into alternatives for modeling the data. Alternatives include CesiumJS & ESRI. Since this API is going down at the end of the year, we will need to find an alternative going forward. We will continue to look for alternatives for now, and will communicate further in our meeting on Wednesday.

- **Past week accomplishments (please describe as what was done, by whom, when)**
  - Kellen Johnson: Met with group. Began reading upon spatial data using MySQL for database support to project.
  - Anish Kunduru: Met with group and discussed alternatives to Google Earth. We seem to be leaning toward CesiumJS.
  - Eli Devine: Met with the team and discussed alternatives for Google Earth.
  - Julio Salinas: Met with team to look into alternatives for Google Earth. Looked into using sandcastle to use with cesiumJs.

- **Pending issues (if applicable)**
    - Kellen Johnson: None.
    - Anish Kunduru: None.
    - Eli Devine: None.
    - Julio Salinas: None.

- **Individual contributions**

NAME	Individual Contributions	Hours this week	HOURS cumulative
Kellen Johnson	Spatial data plugin for MySQL. Attempt to read through entire documentation (Not yet complete).	3	7
Anish Kunduru	Coordinated meeting and discussion about alternatives to Google Earth.	3	7
Eli Devine		3	7
Julio Salinas	Looking into CesiumJS and the use of sandcastle on CesiumJS.	3	6

- **Comments and extended discussion**
    - Kellen Johnson: Spatial data using MySQL may be very beneficial to us down the road (and right now) consider the fact that it would be easier to pull relevant data at any point versus reading a text file over and over again. Spatial data plugins also

allow for other features (water, cities, objects, etc) to be mapped (using coordinates) that could enhance the product further on.

- Anish Kunduru: It looks like we might be pushed to use CesiumJS simply because it is open source. It looks like it supports everything that we are trying to do, so unless we need more functionality that is only supported for ArcGIS, that's where my vote goes.
- Julio Salinas: On the CesiumJs website we can build apps with sandcastle and JS to help us with our 3d modeling. The Cesium website also has a giTf converter we can drop our images in, which we can use with Cesium.

- **Plan for coming week (please describe as what, who, when)**
    - Kellen Johnson: Discuss alternatives to Google Earth with Advisor / Client. Continue to read into spatial data storage into MySQL, as this will benefit us when pulling data for dynamic mapping. I may try to store a dataset towards the end of the week and will see if applicable.
    - Anish Kunduru: Meet with our client/advisor and solidify what technology we are going to use going forward. One of the things I want to discuss is if we are going to do visualizations with images or by manipulating the raw data. My main issues is that we have 2D images to place on a 3D object. For this reason, it might simply be easier to utilize the raw "pixel" level data.
    - Eli Devine: Meet with client and advisors, will move on from there.
    - Julio Salinas: Meet with client and advisors, will move on from there.

- **Summary of weekly advisor meeting (if applicable/optional)**

No meeting this week with the advisor. Will meet again on 9/28.