Date:	28 January 2016
Time:	01.30pm to 02.45pm
Venue:	SMU School of Information Systems Level 4 Meeting Room 4.3
Attendees:	Prof Kam Tin Seong — Associate Professor Leong Junkang, Gabriel — Team Skulptors Member Tan Siying — Team Skulptors Member Zhou Xuanyi — Team Skulptors Member
Absentees:	NIL
Agenda:	1. Update of team's progress. 2. To seek advice on visualization of data.

Discussion:

1. Wiki page
   a. Team to change wiki title from AY15-16 Team Skulptors to ANLY482 AY1516 G1 Team Skulptors.

2. Tableau
   a. To resize the view to laptop screen instead of desktop.

3. UI Mock up
   a. Landing page
      i. Team to ask client to find out their consents regarding how they would want the UI to be placed. For instance, if they are concern on seeing the quantity trend first, it will mean that it would be good to show it in the overview page first. This will give clients of an overview before they can use the filter or check boxes actions to zoom into finer details such as the control chart.
   b. Graphs
      i. Timeline (x-axis)
         - Should give clients the ability to view the months every 3 months or quarterly, instead of just showing 12 months. This is so that clients will not need to till their heads to see the legend as it can be displayed horizontally.
      ii. Possible grouping of SKUs
         - Look through the SKUs and see how much there are, and find out a way to aggregate them. For example, SKUs which start with 16XXXXX can represent 1 group etc. Prof suspects that the numbering of SKUs should have a certain hierarchy, so that we can

know which components they refer too. This will still probably need a lot of scrolling too. Hence, team will need data visualization to help clients interact with it (e.g. search function), rather than scrolling through.
- Ideally, use origin population as a reference to drill down to the detailed control chart that each group has. For example, after the client clicks on a particular bubble, it will show the control chart. This allows users to use interactivity to show problems and zoom in results.
- If question is more on managing warehouse, then we have to think about using place population as the first reference.

4. Bubble chart
   a. Prof says that it is fine but he feels that bubble chart does not give good representation of the data. He suggests using tree map as it allows more insights for the clients when seen.

5. Tree Map
   a. For example, segmentation of rectangles will be the location place, and the shape will map the volume (e.g. dark green means very incapacity while dark red is over capacity). This allows clients to see the park hold relationship and they can press the "problems" and find out what is happening. Location will be depicted as the big rectangle. Within it will be the put away location. The color will represent the capacity.

6. Control chart
   a. Change dotted line for percentiles as they are hard to see.

7. Quantity trend chart
   a. Don't do sort feature as clients may assume that the first bar is January, followed by February. They may not realize that the data had been sorted and thus not according to month.
   b. To maintain 13 months data instead of 12 months as clients will want to compare this year January with last year December etc.
      i. Team to ask client for additional month data so that team can implement this 13 month automatic "roll over" feature
      ii. The "13" months will be added in last column
   c. This will be a component of the overview.
   d. Replace the sorting with box plot instead
      i. Team to implement boxplot for each bar, in the bar chart. This is to show variation and alert clients that throughout the month, a product might have more or less than the percentile. This is because although the bar chart may show a relatively normal bar which is within the percentiles, there is a possibility that there are days where the product inbound is very low or very high.

8. To ask client
   a. Obtaining of put away location capacity. This will allow team to find out the ratio of current usage vs capacity. Clients will thus be able to use a place population cluster chart to find out which location is underutilized or fully utilized.

9. Prof advice
    a. Use tree map as overview for clients.
        i. Best if able to obtain warehouse floor plan.
    b. Obtain put away location capacity or find out what is company's yardstick to measure capacity.
    c. IDE and debugging
        i. Use notepad++ and inspect element on chrome browser.
    d. Management of folders
        i. Create sub folder called data, css, library, js, icons (optional). HTML files will be place at the root of the folder
            - We should download the jquery library. In the event that they updated the firmware, our codes will not be affected.
            - This is so that it will be a easier integration and code sharing across members.
    e. Coding
        i. Read and ask difficulties faced in google d3.js or stack group forum.

Action Items:

No.	Task	In-charge	Due date
1	Remind prof to send email regarding VA link.	Gabriel Leong	28 January 2016
2	Preparation for sponsor meeting.	Team Skulptors	28 January 2016
3	Submit raw data into elearn drobox	Team Skulptors	31 January 2016

The meeting was adjourned at 02.50pm. This minute will be circulated and adopted if there are no amendments reported in the next three days.

Prepared by,

Gabriel

Leong Junkang, Gabriel

Vetted and edited by,

Tan Siying