

Minutes of the Eighth Client Meeting

Terrific Group 19

Friday 12th May 2022

Chair	Mingen Xiao
Secretary	Jing Han
Members	Zhaotong Cui Yufeng Jiang
Apologies	None.

1 Time and Place

The seventh general client meeting for the Master of Computing & Innovation Group Project was held in **Zoom** remotely, at **6pm on Thursday 12th May 2022**.

2 Quorum Announcement

The Chairman announced that a quorum of the group was present and that the meeting, having been duly convened, was ready to proceed with its business.

3 Summary of Previous Meeting

Mingen Xiao briefly recapped Thursday's meeting which was largely focused on the showing technical solutions, discuss whether the current output matches what the client expected and what should the result be if not.

4 Group Milestone

4.1 Overview

All the team members contributed on front-end and back-end deployment and debugging. The team also focus on completing the milestone1 report.

4.2 Detailed presentation

- The first week was mostly lost to the late scheduling of selecting project topics, so by the end of the first week, only a brief meeting with self-introduction between group members had occurred.
- In the second week the team had a brief role allocation and started focusing on technique research. The first client meeting was held which mainly introduce the details of the project and discuss about the expectations of every step of the

project.

- In the third week, upon to what the team had known for the project details so far, the client showed the key point 'data lineage' for the preferred project, which is an enterprise system with lots of data, objects and tables storing in the database. The challenge is to achieve visualisation and generate links between objects. The aim is to build a web application which can load the script of the sequence of database, that could be from 100-200 script into 2. The function is to analyse the links between the tables in the database. SQL lineage could be the crucial skills for the software.
- Throughout the course of the entire project so far, all team members have a general frame of how to start the projects and make the final decision of the project topic so that the team can further going with the technique research and start learning corresponding skills. The team also had well prepared agenda in the general group meeting before the first client meeting and collect important questions that needed to ask for the client to make a clear project plan.
- In the fourth week, the team found the project has more potential details to be discussed. Each member had new questions. The team had well prepared agenda in the general group meeting before the second client meeting and collect important questions that needed to ask for the client to make a clear project plan.
- The client meeting in this week mainly talked about the details of the project and discuss about the expectations of every step of the project.
- The client demonstrated the basic functionality of the project. This project is a visual website. Users input data and use the underlying tools of the website to obtain the relationship between related data, and display it in visual graphics, allowing customers to intuitively see the relationship between stock data. The challenges faced by this project are as follows:
 1. Medium data scale, hundreds of orders of magnitude.
 2. Using a given analysis tool, how to create interfaces.
 3. How the tool recognizes multiple logical relationships between the input data and correctly outputs the visualization.
 4. Create a classification query function on the website, and each type of data can be output and compared through the same name.
- In order to overcome the difficulties in the project, the team should learn SQL basic syntax, T-SQL, subqueries SQL and SQL joins. Besides, learn how to use the given tool or use another ready-made mature tool.
- Throughout the course of the entire project so far, all team members are going with the technique research and start learning corresponding skills.
- In this week's presentation, the problem that the team firstly discussed was the complex data flow and too much data, so searching data is time-consuming. Database user needs a tool to help them to search meaningful information, track data flow, create a map of data flow. Need to get insight of the database or data information. Generate data map, dictionary of the data.
- Then comes to solution:
 1. Parsing-transform data into useful structure.
 2. Storing useful data/information in a database and visualize it through data map and data dictionary.
- During week 6, the whole team has detailed scheduling of lectures and briefly start planning on the milestone report.

- There are more general group meetings than before in week 6 because we all mainly focus on the business case and the draft plan, which introducing our project, team allocation and planning for the milestone 1.
- The team also had a client meeting in this week which mainly talking about the stage of the technical solution
- During week 7, the whole team focuses on the milestone report this week, completing the individual part of their own. And we find that what we recognized and did is a little bit different from what we planned, that means what we had known is a little bit different from the Business Case and draft.
- The team also had a client meeting in this week which mainly talking about the stage of the technical solution.
- As for the technical stage, we completed the basic framework of the front-end page for data map this week. And for the data catalog, we can now extract subqueries and comments, but have difficulties in extracting case and joins statements.
- In the general client meeting in week 8, Yufeng Jiang firstly displayed the output that the software currently generated in our own website to analyse with the client that whether our results are expected.
- After that, the client Roberto made a conclusion that our software structure is in the right direction but still need to improve the output because the printout information still not completely matched with what it should look like.
- Zhaotong Cui was then explaining why our output printout as the current view and made an assumption about how to achieve the correct structure of the output.
- Mingen Xiao also asked and showed a plan of how the front-end should be modified in order to printout the correct output.
- After discussing the technical solutions, Mingen Xiao showed the draft of the milestone1 report and explained the individual stages of progress that the group has completed.
- The client Roberto provided further suggestions of how to make a more appropriate milestone1 report for the progress of the project.
- Before the meetings ends, Jing Han asked a couple of more questions that we prepared about the codes and the milestone1 report.
- During week 9, Yufeng Jiang displayed the new achievements of the team, shows some new functions of the data flow map page. i.e., Shows the dependence of the nodes, use Size function to change the node size according to its level.
- Yufeng Jiang display how we solved the problem that cannot be displayed all nodes when there are too many nodes.
- The client checked some cases in the search function and give some advice for improvement.
- There is a new requirement, the client want the team to implement to show the dependency of all nodes when searching for a specific node, not just show the first level relationships.
- Jing Han asked whether there is new requirement for the back end, since the whole team was blocked there. Maybe save time to initialize other new

functions than just focus on one thing is a better strategy.

- The client said, in this project, the detail things should be designed and discussed by the team itself and how to implement the project aim is an open question, there is no need to wait until the client ask.

5 Individual Milestone Reports

5.1 Mingen Xiao

- Attended all meetings, including one client and two team meetings and all additional ad hoc meetings, where focus on checking output, showing website and discussing milestone1 report.
- Participated in everything needed in the eighth week activities.
- Elected the chair of the team, contribute on taking notes of the meetings and collecting important information to write the minute.
- Contribute on the milestone1 report, especially the parts of planned outputs and team reflection.
- Play the role of front-end developer to make an information bar to show the further details related to the node such as the column and type while clicking on the node.
- Frequently communicate with the client if there are any questions in the team about the project.

5.2 Zhaotong Cui

- Attended all meetings, including one client and 2 team meetings helping with requirements gathering.
- Complete part of the extraction of join statement.
- Learn about front-end visualization.
- Participate in the completion of extraction of case statement.
- Contribute on the milestone1 report, especially the first parts of planned.
- Asked the clients some questions about how to implement the project.
- Took an active role in to coordinate the division of labor among group members.

5.3 Yufeng Jiang

- Attended all meetings.
- Complete the extraction of case statement, waiting for testing results from client.
- Work on the milestone 1 report, especially the reflection on progress part.
- Asked the clients some questions about the milestone report of the project and difficulties in extracting case statement.
- Improve the basic front-end page for data flow map.
- Took an active role in to coordinate the division of labor among group members.

5.4 Jing Han

- Attended all meetings.
- Participated in everything needed in the eighth week activities.
- Contribute on collecting the problems of the project before the client meeting.
- Wrote the Minutes for week 7, post all the client meeting records to team members.
- Wrote the Milestone Report. Mainly focusing on the team reflection part.
- Learn about front-end visualization.
- Standardize the output format of comment and subquery statement.

6 Project Administration

Front-end:

Activity	Team member	Planned due date
Solve the problem that cannot be displayed all nodes when there are too many nodes	Yufeng Jiang	13 th May 2022
Achieve the search function showing first-level dependencies.	Mingen Xiao, Yufeng Jiang	17 th May 2022

Back-end:

Activity	Team member	Planned due date
Complete further edge conditions for the case statements extraction	Zhaotong Cui, Jing Han	15 th May 2022

- Finish the final (Second) milestone plan
- Preparing for the testing plan
- Fix GitHub structure
- Commit code to GitHub
- Communicate with the client in Slack

7 Requirements Elicitation

Check the output printout structure by the client and ask for further requirements to achieve.

7.1 User Requirements

- As a user, I want to check the details of every node as quicker as I can.
- As a user, I want to find a specific objects, shows all the object dependencies with it.

7.2 System Requirements

High Priority:

- Create an information bar in the webpage to show the further details related to the node such as the column and type while clicking on the node. The data needs to be collected by calling the functions to get the variables from the input document.
- Standardize the output format of comment and subquery statement.
- Separate the nodes displayed in the data flow map to show dataflow map clearer.
- Add new functions Color and Size on the data flow map page, with which users can change the nodes color and size according to its level.
- Select the type of window to display and optimise the design of the window, such as a colourful dropdown window.
- Optimize the default display structure of the nodes and edges for the dataflow map.

Low Priority:

- Showing all-level dependencies.

7.3 Browser Support

- Google Chrome
- Mozilla Firefox 3.0+
- Microsoft Internet Explorer 6.0+

7.4 Communication

- Face-to-face meeting
- Zoom meeting onshore
- Text in Slack

7.5 Tasks

- Establish the activity for every team member.
- Check the progress of the project and manage the assignments for the following week.
- Complete the final (Second) milestone plan
- Preparing for the test plan.
- Printout the output structure of what the client expected.

7.6 Lists of Tasks to do

Done:

- Doing research of data lineage.
- Learn fundamental skills of python.

- Have a brief understanding of SQL and start using it.
- Understand the details in the requirement document provided by the client.
- Doing research of csv format.
- Design a form as the object of the database by applying mySQL.
- Successful extract the subqueries and the name of the subqueries.
- Successful extract the comments in every query.
- Learn how to input files from convert csv format into json format.
- Front-end developers create webpage with basic framework.
- Extract case statement.
- Solve the problem that cannot be displayed all nodes when there are too many nodes.
- Standardize the output format of comment and subquery statement.
- Printing output correctly as client expected.

In Progress:

- Create an information bar to show the further details related to the node such as the column and type while clicking on the node.
- Fix some edge conditions for case statement extraction.
- Complete searching feature.

7.7 Glossary

Data-Lineage:

- Data Lineage
- The extraction of case and join
- Meta-data
- Data extraction
- Data mining
- Data parsing
- Dataflow maps
- Data catalog

Python:

- Tuple

SQL:

- Subquery
- Join clause

7.8 Non-functional

- Widely use in different fields and appropriate for various purposes of the users.
- Simply provide csv files as input to get the output.
- Effective portability of the system with fast performance in different environment.

7.9 Interface

- Graphical user interface to achieve visualisation of the dataflow map.
- The software needs to be highly compatibility because data lineage can be widely used for the users in different fields and generate various functions.
- The input files will be the csv format files, and convert to json format, for the system to read the data, analyse the relationship and run the lineage between data.

8 Adjournment

The next meeting is a group meeting and will be decided by the client.

The meeting closing time will be decided by the client.