Group #6 Team Project Week#1 Journal

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**The work I did last week:**

**2016.4.6** Have a group meeting and discuss what we want to do in this project. We noticed that in America, there is few web based order application, people have to call the restaurant to make the order. So we decided to implement a web application to help users to make the order and pay online. We discussed about the main features related to order online we should have and assign different task to individuals.

**2016.4.7** I did some research on current dish order website, and draft our basic business logic for each feature with Xing Yang.

**2016.4.7** Discuss with other team members and present the business logic we have designed. We also decided the technology we will use in the project. Also discussed the scaling method, including webserver and database. Decided the database we will use in the project.

**2016.4.8** I extracted the data from the requirement documents for several models(user profile, order, menu display ). I did some research on the MongoDB replication and MongoDB data modeling method, MongoDB data model research(one to one, one to many, many to many): <https://docs.mongodb.org/manual/applications/data-models/> MongoDB scaling research (Replication, master, slave)

<https://docs.mongodb.org/manual/replication/>

Then drafted the data model in each of our main modules and design the data model based on that with some sample data.

**2016.4.9** Discuss the first version of data model with another team member and the whole team. Set up the Mongo DB on my site, try to create the first version of database and collections first, insert some sample data into the database, also try to insert the embedded documents and reference object in the Mongo DB.

**The problems I encountered:**

1. The Mongo DB doesn’t support join as SQL database, so I did some research to find the corresponding function in Mongo DB.
2. We need to save pictures for dish inside the Mongo DB document.
3. When I insert document into MongoDB, I use the Mongo shell commend, after research, I find a better way to create collections and insert the data. The Mongo DB supported csv and tsv file import. I will create the data file as tsv/csv file and import it into the database in the future.
4. The order, comment and daily special collections will need a primary key, since MongoDB has created the object id already, not sure if it is good to use this id, will do some research and confirm.
5. There are two different ways to model data in MongoDB, one is embedded document and one is reference, need to dig deeper on these two method, so I can confirm which method is better for which model in our application.
6. We consider to use java script to implement the database engine, but we never used it before, need to learn it first, have found that the node.js supports the Mongo DB driver.

**The work I plan to do next week:**

1. Do some research on the embedded document and reference, and create a better model based on the research result.
2. Confirm the primary key and object id issue.
3. Confirm the date type in MongoDB, since we will need to store the real time date in MongoDB and create query based on date.
4. Will create the complete data file as csv or tsv file, make sure that they can be directly imported to database.
5. After do some research on the node.js MongoDB driver, will begin to create the simple API application.