Project report
Beyond haircut Barbershop

Fulfillment of value proposition

We have fulfilled our value proposition which is to build a website for a barbershop to help customers have a better experience getting a haircut. The main feature is to make appointment online with/without a specific barber/store location/hairstyle. And we handled the scheduling system very well by making sure that two people cannot make the same schedule at the same time with the same barber.

Also, in this project, we implemented a website with full-fledged backend middleware and frontend. Instead of a simple user interface with a scheduling feature as making appointment, we have signing in, signing up, updating password, browsing barbers, their comments, delete comments, and browsing appointment history, etc.

What went well?

First, we used Javascript, HTML/CSS to make a better front-end UI design. For example, we have a calendar the user can choose which year, month, date and time if they want to make the appointment with us. They can also choose their date of birth using the calendar. This feature is implemented by JS and we learnt a lot by doing this project. We also carry the username through our website after the user signs in so that whenever the customer searches for appointment history or wants to write a comment, his username can be carried in the text box and the customer does not have to type in the name again after signing in.

Second, we handled some special cases in the design very well. What if the username was already taken by other people? What if the barber you want to have the haircut with has an appointment at the time you want to make the appointment? For the first one, we will tell the user that this username is taken by having a check existing customer method in *customerDao* class that checks if the given username has a corresponding customer (object). If *null*, it will allow register the user, otherwise tells the user to change username for registration. For the second question on the appointment, we also have a check method in *appointmentDao* class that takes in a *barberID* and a *datetime* then check if there is a valid appointment (object) for that barber at that time. If it is not *null*, we will return a message saying this barber is not available at that time. Otherwise, it will allow the user to make the appointment.

Third, we have applied create, update, delete, and select in this project. We can create a customer through the sign-up page, create a comment through writing a comment for a barber, creating an appointment through the portal. We can also

delete a comment or an appointment from a user's portal. For update, we let the user update his password. And for select, we can select the comments for a specific barber, select all barbers in this shop, select my appointment history and select a store with a given specific *storeID*.

What would we do differently?

We would have a shopping cart for our customers to make purchase and check out. Currently our model is that the customer makes an appointment online and then they can show up at the barbershop and pay after the service. But it would be more convenient for the barbershop to track the customer's appointment and other purchases of the products and services if the customer can pay online before coming to our store. Also, for further extension, we can have more pictures in our website such as in the search barber page, where each barber name will come with a nice photo. Apart from this, we think the website we built for this project is better than what we expected at the beginning of this semester.

Suggestions to improve the project experience for future classes

We enjoyed this course a lot and working on the project is a very good hands-on experience for us to get more practice. We found the data warehousing component hard for us to implement. We spent a lot of time on CloverETL to understand how it works and how to actually make it work.

Since we all had experience with Java programming, it was not very hard for us to understand and implement JDBC , servlet, and connecting the jsp with servlet. Also since we learnt some basic HTML/CSS and javascript from W3Cschool at the beginning of this semester to be prepared for the front end of this final project, we felt that it is a good exercise and practice to build the website. The lecture notes are thorough and detailed and the java codes for the blog application have sufficient comments for us to refer to. What's more, I think the TA and TA sessions were very helpful to us. He helped us a lot with the JDBC since when we first encountered it, even though we had some experience with Java, it is still not easy to grasp the logic behind Data Access Object.