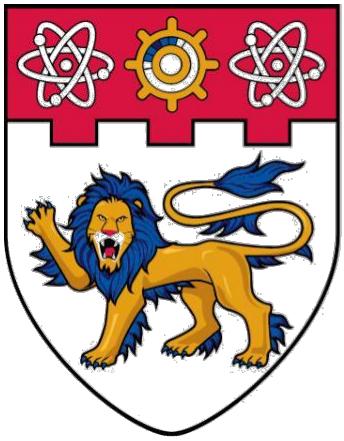


NANYANG TECHNOLOGICAL UNIVERSITY
SINGAPORE

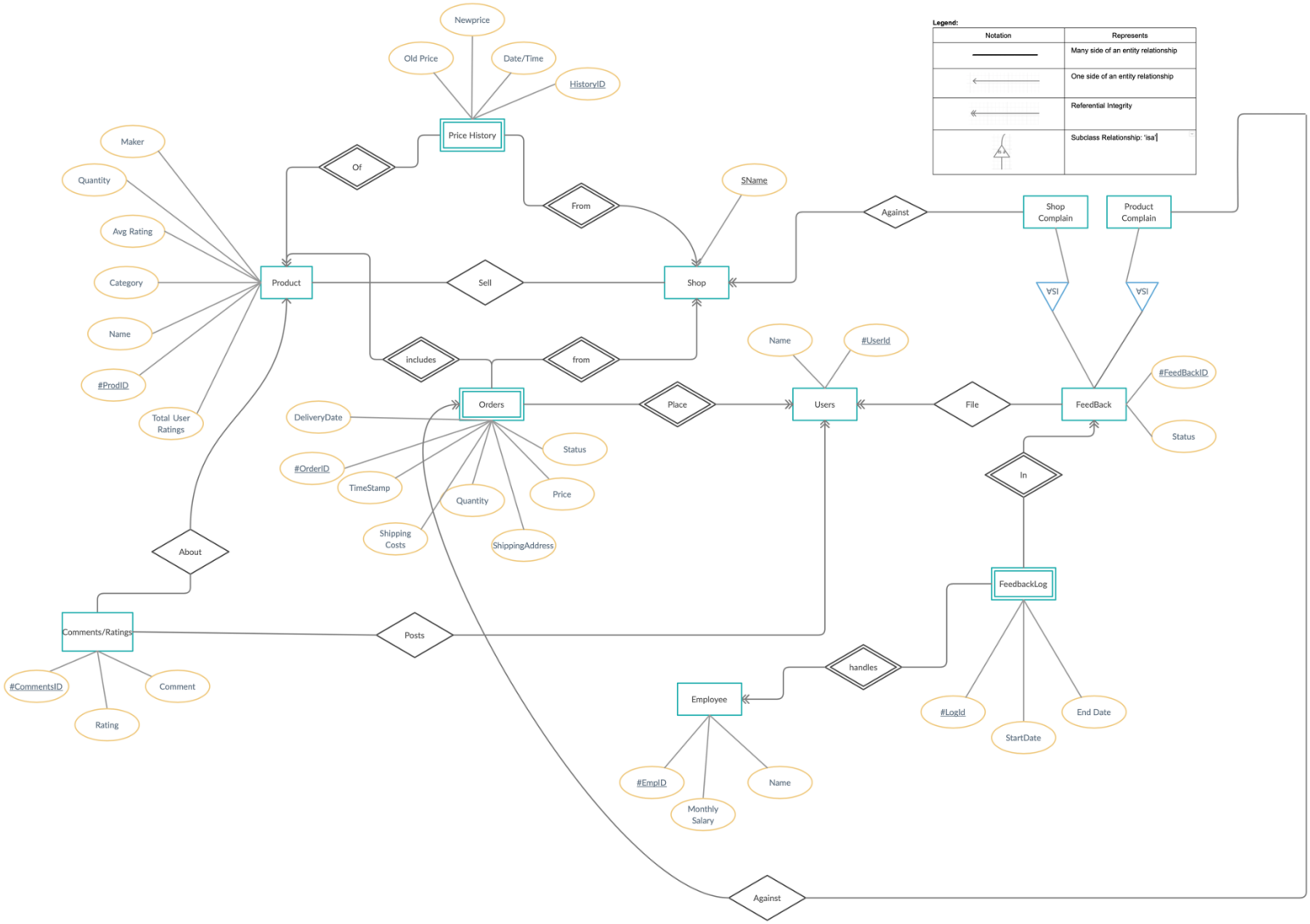
CZ2007 Introduction to Databases

Lab 1 Report Submission:
Creating an ER-Diagram

Group Number: 5

Group Members:
Aide Iskandar Bin Abdul Rahim (U1922414E)
Bryson Teo Yuan Harn (U1920640A)
Chien Yong Qiang (U1920129E)
Kondreddy Saitejareddy (U1923841F)
Pal Aratrika (U1922069F)
Ta Quynh Nga (U1920601L)

Entity-Relationship Diagram:



If image too small: http://gg.gg/erddiagram (Not malicious link

Assumptions made:

1. Since the shops have a unique name, **Sname** is the key for the shop entity set.

2. **#ProdID** is an identification number for products that can uniquely identify each product. It is used since we assume there might be products with the same names. Hence it is the key of the product entity set.

3. **Maker** and **Quantity** need to be recorded for a product. Assumptions were made that each product can have only one maker, not multiple makers. Hence it was added as an attribute of the product entity set. Also, the **Quantity** is assumed to record the quantity in stock for that product across all shops that are available in, hence that was also added as an attribute of the product entity set.

4. **#CommentID** is a unique ID number that can identify comments hence it is used as a key of the Comment entity set.

5. **#FeedbackID** is a unique ID number to identify all the feedback that Users submit.

Discussions outcome:

>> Why do we decide to make “Orders” as a weak entity set?

Each Order can be uniquely identified based on the #ProdID, #ShopID and #UserID. Hence we make it a weak entity set which has supporting relationships with the 3 entities: Products, Shops and Users. Since this will have one entry per product that a user ordered from one shop, it’s price, status and delivery date can also be added as attributes of Order.

>> Why do we create a “Feedback Log” weak entity?

To answer **Query number 4** in **Appendix B**, we need to keep trace the #LogID to calculate numbers of complaints, and also the startDate and endDate of every complaint that has been handled by an employee, and calculate the average latency of that respective employee.

>> How we decided to store the “Price History” information?

To answer **point 2** in **Appendix A** where each change of price has to be recorded, we decided to store the Price History. It is a weak entity set that needs supporting relationships with Product and Shops entity sets. Hence it records the date/time when the price was changed from Oldprice to Newprice for a given product from a given shop.

>> Why do we use a “Feedback” superclass to contain two subclass which are Shop complaints and Product complaints?

Complaints are divided into different types of complaints, one for Shops and one for products that a User has purchased. Furthermore, complaints are handled differently. For example, bad services are usually related to the shop itself but not the product itself. On the other hand, product defects are handled by the makers of the specific product