Final Project

Fan, Guanglu

Liu, Zhiqing

Huang, Junyu

We build six tables, which respectively include customers’ accounts, customers’ types, customers’ personal information, products’ information, orders’ information, and delivery’s situation of online orders.

* The table of ‘Products’ holds product id (01, 02, 03, 04……), product name, product type (fruit, vegetable, instant food……), quantity of inventory, and product price.
* The tables of ‘Customer\_types’ holds customer type (membership, non-membership), type description (the rule of shipping fees for different customers’ type), membership fee, free shipping threshold, and standard shipping fee.
* The table of customers holds customer id of accounts, password of accounts, customer name, their phone number, their city, customer type, and sign-up date of accounts.
* The table of ‘Orders’ holds order id, order date placed, product id, quantity of products purchased in each order, total of each order, delivery id, and customer id.
* The table of ‘Delivery’ holds delivery id, order id, delivery status of orders (label creating, shipping, delivered), amount of shipping fee, shipping date, and delivered date.
* The table of ‘Account’ holds account id, customer id, and account balance.

We build five views.

* The view of ‘Customer\_Balance’ incorporates the tables of ‘Customer’ and ‘Account’ using customer id. We can check customers’ account balance.
* The view of ‘Customer\_Membership’ incorporates the tables of ‘Customer’ and ‘Customers types’ using customer\_type. We can check customers’ membership status.
* The view of ‘Customer\_Orders’ incorporates the tables of ‘Customer’, ‘Orders’, and ‘Products’ using customer\_id and Product\_id. We can check customers’ orders information.
* The view of ‘Delivery\_Status’ incorporates the tables of ‘Orders’ and ‘Delivery’ using delivery\_id. We can check orders’ delivery status.
* The view of ‘Most\_popular\_items’ incorporates the tables of ‘Orders’ and ‘Products’ using Product\_id. We can check the best product the mart sells by Product type.

We build six stored procedures.

* The procedure of ‘Insert\_new\_customer’ is used for adding a new customer into the table of ‘Customers’.
* The procedure of ‘delete\_customer’ is used for dropping a customer from the table of ‘Customers’.
* The procedure of ‘update\_customer\_password’ is used for updating the customers’ passwords in the table of ‘Customers’.
* The procedure of ‘register\_as\_a\_member’ is used to help customers register as a member:

If customer is already a member:

return 'Sorry, this customer is already a member.'

If customer account balance less than the membership fee:

return 'Sorry, Insufficient account balance.'

Else:

deduct membership fee from the account and change the membership status

* The procedure of ‘create\_an\_order’ is used for checking the inventory and calculating the shipping fee when creating an order:

If the quantity of an item the customer bought is more than the inventory:

Return 'Sorry, Insufficient inventory.'

If the customer is a member OR order total exceeds free shipping threshold:

Return 'Enjoy your free shipping.'

If customer is not a member AND order total is less than free shipping threshold:

Add shipping fee to order total.

* The procedure of ‘cancel\_order’ is used for checking the delivery status before cancel an order:

If the delivery status is 'Shipping' OR 'Delivered':

Return 'Your order has been shipped/Delivered'

If the delivery status is creating label or delivery id is not created yet

The order will be cancelled