

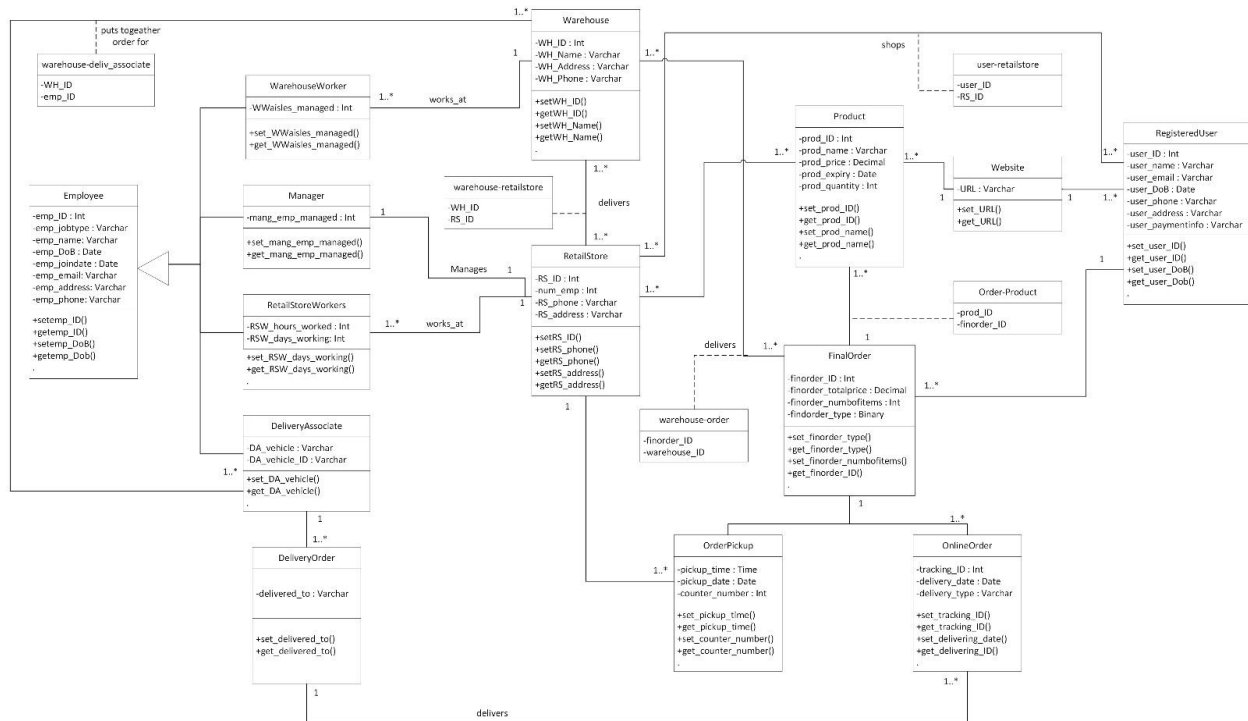
IE6700 19106 Data Management for Analytics SEC 04 Fall 2022

Project Group 28

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Use Case: Milestone #2

UML Class Diagram:



IE 6700 Project UML 1.0.pdf

(For a detailed view of the UML diagram please click on the above pdf)

Relational Model :

Registered_User(user_ID, user_name, user_PhoneNo, user_email, user_DoB)

Registered_User_Address(user_ID, Apt_no, Street_name, City, State, Zipcode)

- user_ID: Foreign key refers to user_ID in Registered_User. Null values not acceptable.

Registered_User_Payment(user_ID, Card_no, CVV, Expiry_date)

- user_ID: Foreign key refers to user_ID in Registered_User. Null values not acceptable.

Website(URL)

Product(prod_ID, prod_name, prod_price, prod_expiry, prod_quantity)

Final_Order(finorder_ID, finorder_totalprice, finorder_numbofitems, findorder_type, *user_ID*)

- user_ID: Foreign key refers to user_ID in Registered_User. Null values not acceptable.

Order-Product(*finorder_ID*, *prod_ID*)

- finorder_ID: Foreign key refers to finorder_ID in Final_Order. Null values not acceptable.
- prod_ID: Foreign key refers to user_ID in Product. Null values not acceptable.

Online_Order(tracking_ID, delivery_date, delivery_type, *finorder_ID*)

- finorder_ID: Foreign key refers to finorder_ID in Final_Order. Null values not acceptable.

Order_Pickup(counter_number, pickup_time, pickup_date, *finorder_ID*, *RS_ID*)

- finorder_ID: Foreign key refers to finorder_ID in Final_Order. Null values not acceptable.
- RS_ID: Foreign key refers to RS_ID in Retail_Store. Null values not acceptable.

Retail_Store(RS_ID, num_emp, RS_phone, RS_address,)

Warehouse(WH_ID, WH_Name, WH_Address, WH_Phone,)

Employee(emp_ID, emp_Jobtype, emp_Name, emp_DoB, emp_joindate, emp_email, emp_address, emp_phone)

Retail_Store_Worker(*emp_ID*, *RS_ID*)

- RS_ID: Foreign key refers to RS_ID in Retail_Store. Null values not acceptable.
- emp_ID: Foreign key refers to Employee. Null values not acceptable.

Manager(*emp_ID*, *RS_ID*)

- emp_ID: Foreign key refers to Employee. Null values not acceptable.
- RS_ID: Foreign key refers to RS_ID in Retail_Store. Null values not acceptable.

Warehouse_Worker(emp_ID, WH_ID, WWaisles_managed)

- emp_ID: Foreign key refers to Employee. Null values not acceptable.
- WH_ID: Foreign key refers to Warehouse. Null values not acceptable.

Delivery_Associate(emp_ID, WH_ID, DA_vehicle, DA_vehicle_ID)

- emp_ID: Foreign key refers to Employee. Null values not acceptable.
- WH_ID: Foreign key refers to Warehouse. Null values not acceptable.

Delivery_Order(finorder_ID, picked_up_by)

- Picked_up_by refers to the person who picked up the order.
- finorder_ID: Foreign key refers to finorder_ID in Final_Order. Null values not acceptable.

User-RetailStore(RS_ID, user_ID)

- RS_ID: Foreign key refers to RS_ID in Retail_Store. Null values not acceptable.
- user_ID: Foreign key refers to Registered_User. Null values not acceptable.

Warehouse-Order(finorder_ID, WH_ID)

- finorder_ID: Foreign key refers to finorder_ID in Final_Order. Null values not acceptable.
- WH_ID: Foreign key refers to Warehouse. Null values not acceptable.

Warehouse-RetailStore(RS_ID, WH_ID)

- WH_ID: Foreign key refers to Warehouse. Null values not acceptable.
- RS_ID: Foreign key refers to RS_ID in Retail_Store. Null values not acceptable.

Warehouse-Delivery-Associate(WH_ID, emp_ID)

- emp_ID: Foreign key refers to Employee. Null values not acceptable.
- WH_ID: Foreign key refers to Warehouse. Null values not acceptable.