

PostgreSQL Tables

location			
Column	Data type	Constraints	Notes
location_id	serial primary key	PK	autoincremental
name	varchar(30)		
city	varchar(30)		
address	varchar(30)		
type_id	integer	FK	references location_type(type_id)

employee			
Column	Data type	Constraints	Notes
employee_id	serial primary key	PK	autoincremental
name	varchar(30)		
password	varchar(30)		already hashed
location_id	integer	FK	references location(location_id)
role_id	integer	FK	references role(role_id)

location_type			
Column	Data type	Constraints	Notes
type_id	serial primary key	PK	autoincremental
description	varchar(30)		

role			
Column	Data type	Constraints	Notes
role_id	serial primary key	PK	autoincremental
description	varchar(30)		

status			
Column	Data type	Constraints	Notes
status_id	serial primary key	PK	autoincremental
description	varchar(30)		

shipping_order			
Column	Data type	Constraints	Notes
order_id	serial primary key	PK	autoincremental
created_date	timestamp		
last_update	timestamp		
status_id	integer	FK	references status(status_id)
location_id	integer	FK	references location(location_id)

Product			
Column	Data type	Constraints	Notes
product_id	serial primary key	PK	autoincremental
name	varchar(30)		
brand	varchar(30)		
description	varchar(100)		
stock	integer	stock >= 0	

order_item (Included-In in Relational Model)			
Column	Data type	Constraints	Notes
product_id	integer	PK, FK	references product(product_id)
order_id	integer	PK, FK	references shipping_order(order_id)
quantity	integer	quantity > 0	

The employee's role, the location's type and the order's status are placed in look-up tables instead of enums. This is the standard practice, so it's more clear. It allows the developers to add/remove/update values without having to modify the actual table structure. If all the values are retrieved only from the DB, then it's the single source of truth, avoiding the need

to keep the values consistent between various places. The trade-offs are: the look-up tables need more space, and they represent more operations that need to be done. However, the current database systems can handle these well.