

Grocery Chain Inventory Management System

Logical Model

Group 16

Nethra Narayanan

Pratyusha Yellapragada

+1 (747) 299 – 5233

+1 (602) 760 – 8375

narayanan.ne@northeastern.edu

yellapragada.p@northeastern.edu

Percentage of effort contributed by Student1: 50%

Percentage of effort contributed by Student2: 50%

Signature of Student 1: Nethra Narayanan

Signature of Student 2: Pratyusha Yellapragada

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All primary keys are marked with an underline and foreign keys in Bold.

Truck (truck_id, delivery_time, product_dept, **warehouse_id**),

TRUCK_ID is the primary key for Truck relation

WAREHOUSE_ID is the foreign key for the Warehouse Dispatches Truck relationship type: NULL values NOT ALLOWED

Store (store_no, region, address, **order_id**)

STORE_NO is the primary key for Store relation

ORDER_ID is the foreign key for the Store places order relationship type: NULL values NOT ALLOWED

Delivers_To(**truck_id**, **store_no**)

TRUCK_ID and STORE_NO are the foreign keys for the Truck Delivers to the store relationship type: NULL values NOT ALLOWED

Warehouse (warehouse_id, region, address)

Employee (employee_id, role_id, first_name, last_name, date_of_birth, **store_id**)

EMPLOYEE_ID is the primary key for the Employee relation

STORE_ID is the foreign key for the Employee Works in Store relationship type: NULL values NOT ALLOWED

Store_Associate(employee_id, role_id, first_name, last_name, date_of_birth, user_id, password),

EMPLOYEE_ID is the inherited primary key and ROLE_ID is the primary key for this relation

Store_Clerk (employee_id, role_id, first_name, last_name, date_of_birth, store_dept),

EMPLOYEE_ID is the inherited primary key and ROLE_ID is the primary key for this relation

Store_Manager(employee_id, role_id, first_name, last_name, date_of_birth),

EMPLOYEE_ID is the inherited primary key and ROLE_ID is the primary key for this relation

Shift(shift_id, shift_start_time, shift_end_time, **role_id**)

SHIFT_ID is the primary key for the Shift relation

ROLE_ID is the foreign key for the Employee manages Shift relationship Type: NULL values NOT ALLOWED

Works(**employee_id,role_id,shift_id**)

EMPLOYEE_ID and SHIFT_ID are the foreign keys for the Employee works shift relationship type: NULL values NOT ALLOWED

Aisle (aisle_no, aisle_desc, **store_no**),

AISLE_NO is the primary key for the Aisle relation

STORE_NO is the foreign key for the Store contains aisle relation: NULL values NOT ALLOWED

Product (sku_no , balance_on_hand, sku_desc, **aisle_no**)

SKU_NO is the primary key for the product relation

AISLE_NO is the foreign key for the product placed on relation: NULL values NOT ALLOWED

Order (order_no, sku_no, **warehouse_id**)

WAREHOUSE_ID is the foreign key for Warehouse fulfils order relationship type: NULL values NOT ALLOWED

Order_Detail (sku_no, unit_cost, case_qty, total_cost)

Order_Header (order_no, order_date, dispatch_date)

Places (**store_no, order_no, sku_no**)

STORE_NO,ORDER_NO and SKU_NO are the foreign keys for the Store places Order relationship Type: NULL values NOT ALLOWED