

Group Members: Johnson Absolu, Koffi Gnamien Aristide, Ramon N. Nguema

Class: Database Development I

Professor: Frank Ravanshad

Project: Car Dealership Database Phase 2

Date: Tuesday, November, 8th, 2022

Inventory Entity is an entity with an ID of inventory_ID and a simple attribute of inventory_total, that keeps track of the number of vehicles.

inventory_ID is a unique identifier that identifies the inventory.

Inventory_total is a simple attribute that tracks the total number of inventory.

Car Entity is an entity with an ID of Car_ID, it has nine attributes. Its attributes are, Car_ID, Body_type, Year, Model, Trim, Color, Price, Total_units and Status.

Car_ID is a unique identifier that identifies a car.

Body_type is a simple attribute that identifies the body type of the car.

Year is a simple attribute that identifies the age of the car.

Trim is a composite attribute that is composed of Engine_size, Transmission and Drivetrain.

Color is a multi-value attribute, it allows a car to be more than one color.

Price is a simple attribute that defines the currency value of a car.

Total Units is a derived attribute. Its value is derived from Model and Trim.

Status is a derived attribute. Its value is derived off of

Order Entity is an entity with an id of Order_id, it tracks customer orders and has seven attributes. The attributes are Order_id, Item, Order_date, Shipped_date, Delivery_date, Order_total, and Payment_total.

Order_id is a unique identifier that identifies an order.

Item is a simple attribute that defines an object/entity that is included in an order.

Order_date is a simple attribute that states the date an order is placed.

Shipped_date is a simple attribute that states the data that an order is shipped.

Delivery_date is a simple attribute that states the date an order is delivered.

Order_total is a simple attribute that states the total amount of an order.

Payment_method is a simple attribute that calculates the method used to place an order.

Customer Entity is an entity with an id of Customer_ID. It identifies a customer who places an order, and has six attributes. Its attributes are Customer_ID, customer_name, customer_address, phone_number, email_address and order_id.

Customer_ID is a unique identifier that identifies a customer.

Customer_name is a composite attribute that captures a customer's name, it is composed of First Name and Last Name.

Customer_address is a composite attribute that captures a customer's address. It is composed of a house number, Street, City, State and Zip Code.

Phone_number is a simple attribute that captures a customer's phone number who places an order.

Email_Address is a simple attribute that captures a customer's email address who places an order.

Order_ID is a foreign key in the customer entity that matches a customer to an order.

Employee is an entity with an id of Emp_ID, It is a super entity with total generalization of sub entities ISA and Driver.. It has seven attributes, which are f Emp_ID, Emp_name, Emp_address, Title.

Emp_id is a unique identifier that identifies an employee.

Emp_Name is a composite attribute that captures an employee's name. It is composed of First name, and Last name.

Emp Address is a simple attribute that captures an employee's address.

Title is a simple attribute that states the title of an employee.

ISA is a Sub-entity of Employee with total specialization and disjoint constraint of the Employee entity. It has two attributes, sales_number and commission.

Sales number is a simple attribute that connects an order with an ISA.

Commission is a simple attribute that states a commission amount from a sales.

Driver is a Sub-entity of Employee with total specialization and disjoint constraint of the employee entity. Its ID is License_ID and It has 4 attributes, License_id, truck_num and delivery_number.

License ID is a simple attribute that captures the license number.

Truck Num is a simple attribute that states a truck number, this number is assigned to a Driver.

Delivery number is a simple attribute that states a number for a delivery.