

# Data Dictionary

## 1. product

Column Name	Data Type	Constraints	Description
product_id	VARCHAR(10)	PRIMARY KEY, NOT NULL	Unique identifier for the product.
name	VARCHAR(50)	NOT NULL	Name of the product.
description	TEXT		Description of the product.
weight	DECIMAL(10,2)	NOT NULL	Weight of the product.
hs_code	VARCHAR(10)	NOT NULL	Harmonized System code for the product.
category	VARCHAR(20)	NOT NULL	Category of the product.
storage_type	VARCHAR(20)	NOT NULL	Storage type (e.g., Cold, Dry).
price	DECIMAL(10,2)	NOT NULL	Price of the product.
created_at	DATETIME	DEFAULT GETDATE()	Timestamp when the product was created.
updated_at	DATETIME	DEFAULT GETDATE()	Timestamp when the product was last updated.

## 2. supplier

Column Name	Data Type	Constraints	Description
supplier_id	VARCHAR(10)	PRIMARY KEY, NOT NULL	Unique identifier for the supplier.
name	VARCHAR(50)	NOT NULL	Name of the supplier.
address	TEXT		Address of the supplier.
contact_number	VARCHAR(15)		Contact number of the supplier.
email	VARCHAR(50)		Email address of the supplier.
contract_terms	TEXT		Contract terms with the supplier.
reliability_score	VARCHAR(20)		Reliability score of the supplier.
created_at	DATETIME	DEFAULT GETDATE()	Timestamp when the supplier was created.
updated_at	DATETIME	DEFAULT GETDATE()	Timestamp when the supplier was last updated.

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### 3. supplier\_product

Column Name	Data Type	Constraints	Description
supplier_id	VARCHAR(10)	PRIMARY KEY, FOREIGN KEY	References supplier.supplier_id.
product_id	VARCHAR(10)	PRIMARY KEY, FOREIGN KEY	References product.product_id.

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### 4. warehouse

Column Name	Data Type	Constraints	Description
warehouse_id	VARCHAR(10)	PRIMARY KEY, NOT NULL	Unique identifier for the warehouse.
name	VARCHAR(50)	NOT NULL	Name of the warehouse.
location	VARCHAR(50)	NOT NULL	Location of the warehouse.
capacity	INT	NOT NULL	Capacity of the warehouse.
manager	VARCHAR(50)		Manager of the warehouse.
type	VARCHAR(20)	NOT NULL	Type of warehouse (e.g., Cold, Dry).
contact	VARCHAR(15)		Contact number of the warehouse.
operational_status	VARCHAR(20)	DEFAULT 'Active'	Operational status of the warehouse.
created_at	DATETIME	DEFAULT GETDATE()	Timestamp when the warehouse was created.
updated_at	DATETIME	DEFAULT GETDATE()	Timestamp when the warehouse was last updated.

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### 5. warehouse\_product

Column Name	Data Type	Constraints	Description
warehouse_id	VARCHAR(10)	PRIMARY KEY, FOREIGN KEY	References warehouse.warehouse_id.
product_id	VARCHAR(10)	PRIMARY KEY, FOREIGN KEY	References product.product_id.
quantity	INT	DEFAULT 0	Quantity of the product in the warehouse.

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## 6. route

Column Name	Data Type	Constraints	Description
route_id	VARCHAR(10)	PRIMARY KEY, NOT NULL	Unique identifier for the route.
distance	INT	NOT NULL	Distance of the route in kilometers.
origin_warehouse_id	VARCHAR(10)	FOREIGN KEY	References warehouse.warehouse_id.
destination_warehouse_id	VARCHAR(10)	FOREIGN KEY	References warehouse.warehouse_id.
estimated_time	INT	NOT NULL	Estimated time for the route (minutes).
transportation_cost	DECIMAL(10,2)	NOT NULL	Cost of transportation for the route.

## 7. transportation\_vehicle

Column Name	Data Type	Constraints	Description
vehicle_id	VARCHAR(10)	PRIMARY KEY, NOT NULL	Unique identifier for the vehicle.
type	VARCHAR(20)	NOT NULL	Type of vehicle (e.g., Truck, Van).
status	VARCHAR(20)	NOT NULL	Status of the vehicle (e.g., Active).
capacity	DECIMAL(10,2)		Capacity of the vehicle.
fuel_type	VARCHAR(20)		Fuel type of the vehicle.
maintenance_date	DATE		Last maintenance date of the vehicle.

## 8. driver

Column Name	Data Type	Constraints	Description
driver_id	VARCHAR(10)	PRIMARY KEY, NOT NULL	Unique identifier for the driver.
license_number	VARCHAR(20)	NOT NULL	License number of the driver.
name	VARCHAR(50)	NOT NULL	Name of the driver.

contact	VARCHAR(15)		Contact number of the driver.
address	TEXT		Address of the driver.
hire_date	DATE		Hire date of the driver.

## 9. vehicle\_driver

Column Name	Data Type	Constraints	Description
vehicle_id	VARCHAR(10)	PRIMARY KEY, FOREIGN KEY	References transportation_vehicle.vehicle_id.
driver_id	VARCHAR(10)	PRIMARY KEY, FOREIGN KEY	References driver.driver_id.
assignment_date	DATE	NOT NULL	Date when the driver was assigned to the vehicle.

## 10. shipment

Column Name	Data Type	Constraints	Description
shipment_id	VARCHAR(10)	PRIMARY KEY, NOT NULL	Unique identifier for the shipment.
status	VARCHAR(20)	NOT NULL	Status of the shipment (e.g., In Transit).
estimated_arrival	DATE		Estimated arrival date of the shipment.
actual_arrival	DATE		Actual arrival date of the shipment.
vehicle_id	VARCHAR(10)	FOREIGN KEY	References transportation_vehicle.vehicle_id.
route_id	VARCHAR(10)	FOREIGN KEY	References route.route_id.
departure_time	DATETIME		Departure time of the shipment.
total_weight	DECIMAL(10,2)		Total weight of the shipment.
total_cost	DECIMAL(10,2)		Total cost of the shipment.