

John Glover & Drew Maphey

Database Schema Document

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Locations(LocationID, typeOfLoc),

LocationID → typeOfLoc

This is the only functional dependency, so we are in 4NF

Stations(LocationID, num_Platforms)

LocationID → num_Platforms

This is the only functional dependency, so we are in 4NF

Train(TrainID, Model, Year, Color, Capacity)

TrainID → Model, Year, Color, Capacity

This is the only functional dependency, so we are in 4NF

Passenger(pass_ID, FirstName, LastName)

pass_ID → FirstName, LastName

This is the only functional dependency, so we are in 4NF

Blacklisted_Passenger(pass_ID, Reason)

pass_ID → Reason

This is the only functional dependency, so we are in 4NF

Staff(StaffID, FirstName, LastName, Age, job)

StaffID → FirstName, LastName, Age, job

This is the only functional dependency, so we are in 4NF

Supplier(SupplierID, LocationID, TypeOfStuff)

SupplierID → LocationID, TypeOfStuff

This is the only functional dependency, so we are in 4NF

AvailableTools(ToolID, Tool_description)

ToolID → Tool_description

This is the only functional dependency, so we are in 4NF

Train_Shed(LocationID, Capacity)

LocationID → Capacity

This is the only functional dependency, so we are in 4NF

Tools_at_Shed(LocationID, ToolID)

LocationID → ToolID

This is the only functional dependency, so we are in 4NF

Trips(TripID, FromLocationID, ToLocationID, TicketPrice)

TripID → FromLocationID, ToLocationID, TicketPrice

This is the only functional dependency, so we are in 4NF

Ticket_Supplier(CompanyID, CompanyName)

CompanyID → CompanyName

This is the only functional dependency, so we are in 4NF

Ticket(TicketID, pass_ID, TripID, CompanyID, Date)

TicketID → pass_ID, TripID, CompanyID, Date

This is the only functional dependency, so we are in 4NF

Ticket_Cancellations(CanceledTicketID)

CanceledTicketID → CanceledTicketID

This is the only functional dependency, and it is trivial, so we are in 4NF

Train_Schedule(TrainID, Date, Trip, DepartingTime, EndingTime)

TrainID → Date, Trip, DepartingTime, EndingTime

This is the only functional dependency, so we are in 4NF

Passeger_On_Train(TrainID, TicketID)

TrainID → TicketID

This is the only functional dependency, so we are in 4NF

Staff_On_Train(TrainID, TripID, StaffID)

TrainID → TripID, StaffID

This is the only functional dependency, so we are in 4NF

Station_Schedule(LocationID, Date, Time, Platform, TrainID)

LocationID, Date → Time, Platform, TrainID

This is the only functional dependency, so we are in 4NF

Maintenance_Orders(MaintOrderID, DateFilled, Finsished, TrainID, Descrip)

MaintOrderID → DateFilled, Finsished, TrainID, Descrip

This is the only functional dependency, so we are in 4NF

Supplies(ItemID, nameOfSupplies)

ItemID → nameOfSupplies

This is the only functional dependency, so we are in 4NF

Supply_Orders(OrderID, SupplyType, SupplierID, Quantity, Date)

OrderID → SupplyType, SupplierID, Quantity, Date

This is the only functional dependency, so we are in 4NF

Supplies_On_Train(OrderID, TrainID)

OrderID \rightarrow TrainID

This is the only functional dependency, so we are in 4NF

Trains_At_Shed(Train_Shed_Location, TrainID)

Train_Shed_Location \rightarrow TrainID

This is the only functional dependency, so we are in 4NF