

Traffic Police Challan System database

Business Logic:

In a traffic police department, there are police stations with Station ID and Station District and no of officers in the staff. Every officer has a police ID, Name, Rank and Address.

An officer can give a ticket (challan) to any vehicle that violate the traffic police rules. There are challan types and depending upon challan types, there are different types of fines that a violator can have to pay. A Challan Type has a challan ID, Description and fine. A vehicle has a number, Model and color. A violator can have one or many vehicles registered on his name.

Similarly a particular challan of a challan type can be charged to many vehicles and one particular vehicle can also have many challans in its record. An officer can charge many challans to many different vehicles.

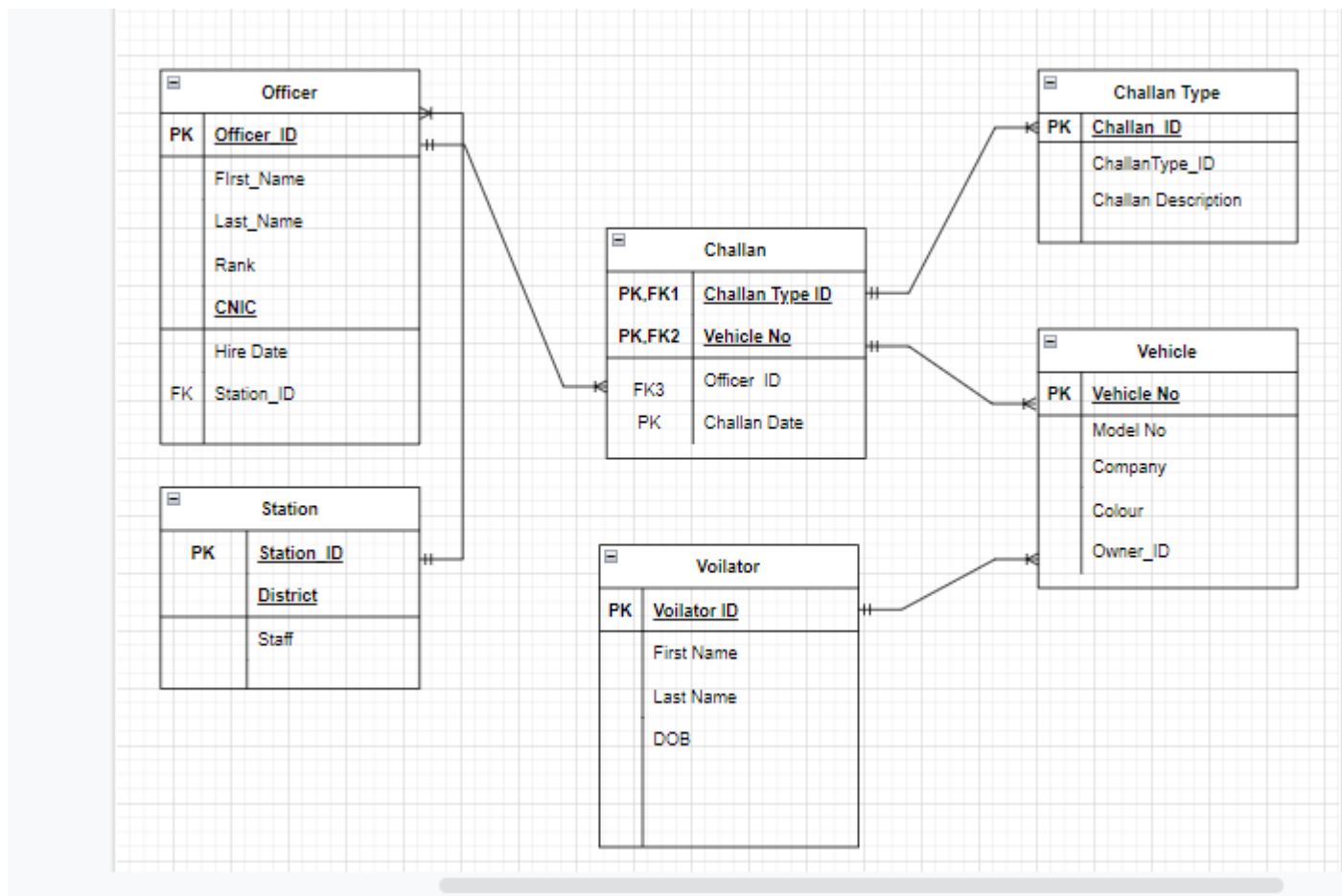
Noun Verb Analysis:

<u>Nouns</u>	<u>Adjectives</u>
<u>Station</u>	Station id, District, Staff
<u>Officers</u>	Officer_id, First_name, Last_Name, Officer_rank, Officer_CNIC, Officer_address, Hire_date
<u>Voilator</u>	Voilator_cnic, First_name, Last_name, Voilator_address, Vehile_no , Date_of_birth
<u>Vehicle</u>	Vehicle_no, Model, Company, Colour
<u>Challan</u>	Chllan_id , Challan_date, Vehile_no
<u>Challan type</u>	Challan_id, Challan_description, Challan_fine

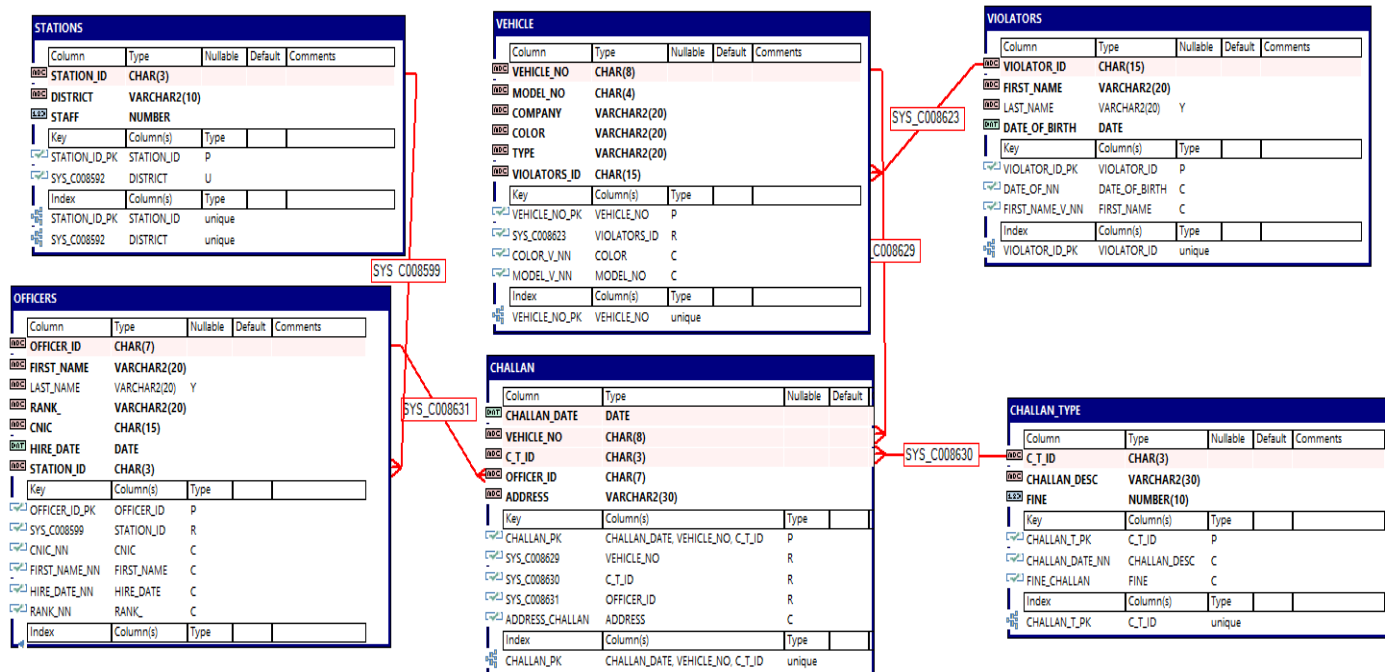
Possible Noun Verb relationships

Nouns	Verbs
Stations	Stations have officers
Officers	Officers can charge challan
Challan	Challan can be charged to vehicle
Violator	Violator has vehicles
Challan types	Challan has challan types

Entity Relationship Diagram:



Normalized Entity Relationship Diagram/Relational Model:



Relational Model:

Challan			
Vehicle_No(PK)	challanType_Id(PK)	Challan Date	Officer id(FK)
123	1	12/6/2022	1

Voilator					
Voilator ID(PK)	First_Name	Last_Name	Age	CNIC	DOB
1	Ali	Ahmad	23	31203-0843496-3	12:00:00 AM

Vehicle		
VehicleNo(PK)	Company	Color
123	Honda	blue

Challan Type		
Challan_ID	Challan Description	Challan_fine
1	Signal Breach	200

Officer						
Officer_ID	First_Name	Last_Name	CNIC	Hire Date	Officer Rank	Station_ID(FK)
1	Noman	Jafar	31203-8733564-3	12/12/2020	Inspector	54000

Stations		
Station ID(PK)	Station Location	Station Staff
54000	Lahore	16