

1. RTO:

Branch_ID → Branch_Name (BCNF)

Branch_Name → Branch_ID (BCNF)

So, our relation is in BCNF

2. Vehicle_Type:

Vehicle_Type_ID → Vehicle_Type_Name (BCNF)

Vehicle_Type_Name → Vehicle_Type_ID (BCNF)

So, our relation is in BCNF

3. Department:

Department_ID → Department_Name
(BCNF)

Department_Name → Department_ID
(BCNF)

So, our relation is in BCNF

4. Employee:

Employee_ID → Name (BCNF)

Employee_ID → DOB (BCNF)

Employee_ID → DOJ (BCNF)

Employee_ID → Salary (BCNF)

Employee_ID → Address (BCNF)

Employee_ID → State (BCNF)

Employee_ID	→	PAN_No	(BCNF)
Employee_ID	→	Branch_ID	(BCNF)
Employee_ID	→	Dep_ID	(BCNF)

PAN_No	→	Employee_ID	(BCNF)
PAN_No	→	Name	(BCNF)
PAN_No	→	DOB	(BCNF)
PAN_No	→	DOJ	(BCNF)
PAN_No	→	Salary	(BCNF)
PAN_No	→	Address	(BCNF)
PAN_No	→	State	(BCNF)
PAN_No	→	Branch_ID	(BCNF)
PAN_No	→	Dep_ID	(BCNF)

So, our relation is in BCNF

5. Users:

ID_Proof	→	Name	(BCNF)
ID_Proof	→	Phone_No	(BCNF)
ID_Proof	→	DOB	(BCNF)
ID_Proof	→	Blood_group	(BCNF)
ID_Proof	→	Street	(BCNF)
ID_Proof	→	City	(BCNF)
ID_Proof	→	State	(BCNF)
ID_Proof	→	Username	(BCNF)
ID_Proof	→	Password	(BCNF)
ID_Proof	→	Branch_ID	(BCNF)

Username	→	ID_Proof	(BCNF)
Username	→	Name	(BCNF)
Username	→	Phone_No	(BCNF)
Username	→	DOB	(BCNF)
Username	→	Blood_group	(BCNF)
Username	→	Street	(BCNF)
Username	→	City	(BCNF)
Username	→	State	(BCNF)
Username	→	Password	(BCNF)
Username	→	Branch_ID	(BCNF)

So, our relation is in BCNF

6. License_Type:

License_Type_ID	→	License_Type_Name
(BCNF)		
License_Type_Name	→	License_Type_ID
(BCNF)		

So, our relation is in BCNF

7. License:

License_ID	→	Expiry_Date	(BCNF)
License_ID	→	Date_of_Issue	(BCNF)
License_ID	→	Branch_ID	(BCNF)

License_ID → Emp_ID (BCNF)

License_ID → ID_Proof (BCNF)

License_ID → License_Type_ID (BCNF)

Emp_ID → Branch_ID 2NF

ID_Proof → Branch_ID 2NF

We already have relation (Emp_ID → Branch_ID) as we can access Branch_ID from Emp_ID using Employee Table.

We already have relation (ID_Proof → Branch_ID) as we can access Branch_ID from ID_Proof using Users Table.
So, we will remove Branch_ID attribute from this table.

So, our relation is in BCNF

8. LV_Association:

{License_ID,Vehicle_Type_ID} → License_ID
(BCNF)

{License_ID,Vehicle_Type_ID} → Vehicle_Type_ID
(BCNF)

So, our relation is in BCNF

9. Permit:

Permit_ID → Company_Name (BCNF)

Permit_ID → Company_Address (BCNF)

Permit_ID → Date_Of_Issue (BCNF)

Permit_ID	→	Expiry_Date	(BCNF)
Permit_ID	→	Weight_Limit	(BCNF)
Permit_ID	→	Branch_ID	(BCNF)
Permit_ID	→	Emp_ID	(BCNF)
Permit_ID	→	ID_Proof	(BCNF)

Emp_ID	→	Branch_ID	2NF
ID_Proof	→	Branch_ID	2NF

We already have relation (**Emp_ID** → Branch_ID) as we can access Branch_ID from Emp_ID using Employee Table.

We already have relation (**ID_Proof** → Branch_ID) as we can access Branch_ID from ID_Proof using Users Table.
So, we will remove Branch_ID attribute from this table.

So, our relation is in BCNF

10. Vehicle:

Chassis_No	→	Model	(BCNF)
Chassis_No	→	Color	(BCNF)
Chassis_No	→	Fuel_Type	(BCNF)
Chassis_No	→	Vehicle_Type_ID	(BCNF)

So, our relation is in BCNF

11. Carnet:

Carnet_ID	→	Expiry_Date	(BCNF)
Carnet_ID	→	Date_Of_Issue	(BCNF)
Carnet_ID	→	Branch_ID	(BCNF)
Carnet_ID	→	Emp_ID	(BCNF)
Carnet_ID	→	ID_Proof	(BCNF)
Carnet_ID	→	Chassis_No	(BCNF)

Chassis_No	→	Carnet_ID	(BCNF)
Chassis_No	→	Expiry_Date	(BCNF)
Chassis_No	→	Date_Of_Issue	(BCNF)
Chassis_No	→	Branch_ID	(BCNF)
Chassis_No	→	Emp_ID	(BCNF)
Chassis_No	→	ID_Proof	(BCNF)

Emp_ID	→	Branch_ID	2NF
ID_Proof	→	Branch_ID	2NF

We already have relation (**Emp_ID** → **Branch_ID**) as we can access **Branch_ID** from **Emp_ID** using Employee Table.

We already have relation (**ID_Proof** → **Branch_ID**) as we can access **Branch_ID** from **ID_Proof** using Users Table.
So, we will remove **Branch_ID** attribute from this table.

So, our relation is in BCNF

12. RC_Book:

Reg_No → Expiry_Date (BCNF)
 Reg_No → Date_Of_Reg (BCNF)
 Reg_No → Branch_ID (BCNF)
 Reg_No → Chassis_No (BCNF)
 Reg_No → Emp_ID (BCNF)
 Reg_No → ID_Proof (BCNF)

Chassis_no → Expiry_Date (BCNF)
 Chassis_no → Date_Of_Reg (BCNF)
 Chassis_no → Reg_No (BCNF)
 Chassis_no → Branch_ID (BCNF)
 Chassis_no → Emp_ID (BCNF)
 Chassis_no → ID_Proof (BCNF)

Emp_ID → Branch_ID 2NF
 ID_Proof → Branch_ID 2NF

We already have relation (Emp_ID → Branch_ID) as we can access Branch_ID from Emp_ID using Employee Table.

We already have relation (ID_Proof → Branch_ID) as we can access Branch_ID from ID_Proof using Users Table.
 So, we will remove Branch_ID attribute from this table.

So, our relation is in BCNF

13. Insurance:

Policy_ID	→	Holder_name	(BCNF)
Policy_ID	→	Date_Of_Issue	(BCNF)
Policy_ID	→	Tenure	(BCNF)
Policy_ID	→	Chassis_No	(BCNF)

Chassis_No	→	Policy_ID	(BCNF)
Chassis_No	→	Holder_name	(BCNF)
Chassis_No	→	Date_Of_Issue	(BCNF)
Chassis_No	→	Tenure	(BCNF)

So, our relation is in BCNF