DBMS PRS

Railway Database Management

NORMALIZATION

1) TRAIN (T_ID, T_Name, T_Type

FDs :

- (T_id->tname)
- (T_id->T_type)

CK: T_id

Result: this table is in bcnf.

2) PASSENGERS (PID, P_Name, Age, Gender, Caoch_no, Coach_type, Seat_No, Train_id)

FDs:

- (P_id->P_name, age, gender, Seat_no , coach_no, Coach_type, train_id)
- (Coach_no->coach_type)

CK: P_id

Result: Since, coach determine attribute coach_type and both are non-prime attribute then table this table is not in 3nf.

To make it in 3nf and bcnf we can make two tables from by spitting it.

PASSENGERS (PID, P_Name, Age, Gender, Caoch_no, Seat_No, Train_id)

Coach (Coach_No, coach, type)

3) TRACKS (Track_No, Length)

Result: this Table is in BCNF because it is a binary relation and all binary relations are in bcnf.

4) STATION (S_ID, S_Name, Place)

- (S_ID->S_name)
- (S_ID->Place)

=>S_ID+= {S_name,Place}

CK: S_ID

Result: Table is in bcnf.

5) ROUTE (Route_no, Total_Stops)

Result: this Table is in BCNF because it is a binary relation and all binary relations are in bcnf.