

Constraint 1

The default salary is "100".

alter table salaries alter salary set default 100

insert into salaries(yearID,teamID,lgID,masterID) values(2021,'kar','ti','chute1') after running this query salary of salaries table will be set to 100 even we are not giving salary because by default it is set to 100

Constraint 2

A player cannot have a salary lower than the year in which they were paid

DELIMITER //

Create Trigger tri_sal

BEFORE INSERT ON salaries FOR EACH ROW

BEGIN

declare msg varchar(128);

declare year int;

set year = NEW.yearID;

IF NEW.salary < year THEN

set msg = concat('Salary can not be lower than yearID');

signal sqlstate '45000' set message_text = msg;

END IF;

END //

insert into salaries(yearID,teamID,lgID,masterID,salary) values(1984,'kar','ti','chute1',1984)

Constraint 3

The masterid of a person with a salary must exist in the master table.

DELIMITER //

create trigger tr_salary_master_new

before insert on salaries for each row

begin

DECLARE ID varchar(10);

declare mas_id varchar(10);

set ID = NEW.masterID;

```

set mas_id = (select masterid from master where masterid = ID);

if (New.salary is not null) and (New.masterID NOT IN (select distinct masterID from master)) then

    insert into salaries(lgID, masterID, salary, teamID, yearID)
values(New.lgID, New.masterID, New.salary, New.teamID, New.yearID);

end if;

end//

```

insert into salaries(yearID, teamID, lgID, masterID) values(4045, 'kar', 'ti', 'aardsda01') - will work

insert into salaries(yearID, teamID, lgID, masterID) values(4045, 'kar', 'ti', 'sda01') - will not work because sda01 is not present in master table

Constraint 4

When a team loses more than 161 games in a season, the fans want to forget about the team forever, so all batting records for the team for that year should be deleted

DELIMITER //

create trigger del_batting after insert on teams for each row

begin

declare los int;

set los = (select tot_los from (select sum(L) as tot_los from teams where teamID = New.teamID and yearID = New.yearID group by teamID, yearID) a where tot_los > 161);

if los is not null then

delete from batting where teamID = New.teamID and yearID = New.yearID;

end if;

end //

insert into teams(yearID, teamID, L) values (1871, 'BS1', 162) - after inserting this query, teamID = BS1 and yearID 1871 will be deleted from the batting table because it's total losses are more than 161

Constraint 5

If a batter hits 100 HRs in a year, they are automatically inducted into the Hall of Fame (a new row in the hallOfFame table).

DELIMITER //

CREATE TRIGGER add_batter_to_hall_of_fame AFTER INSERT on batting for each row

BEGIN

declare r int;

set r = (select tot_runs from (select sum(HR) as tot_runs from batting where masterID = New.masterID group by yearID, masterID) a where tot_runs > 99);

IF r is not null then

INSERT INTO halloffame(masterid, yearid)

VALUES (New.masterID, New.yearID);

END IF;

END//

Test 1 : insert into batting(masterID, yearID, stint, HR) values('PAK003', 2007, 5, 99);

In test 1 masterID will not be inserted to the hall of fame table because HR is less than 100

Test 1 : insert into batting(masterID, yearID, stint, HR) values('PAK004', 2007, 5, 100);

In test 1 masterID will be inserted to the hall of fame table because HR is > 99

Constraint 6

All players must have some salary, i.e., it cannot be null.

DELIMITER //

create trigger tr_player_salary

before insert on salaries for each row

begin

declare msg varchar(128);

if New.salary is null then

set msg = concat('Salary cannot be null');

signal sqlstate '45000' set message_text = msg;

end if;

end//

insert into salaries(yearID,teamID,lglD,masterID) values(4045,'kar','ti','abreujo01') - This query will not work as we are not giving salary

Constraint 7

Every salaried person has a unique salary, teamid, and year combination.

ALTER table salaries add constraint unique_columns UNIQUE (salary, teamID, yearID);

Test 1 :

```
insert into salaries (salary, teamid, yearid, lgid, masterid) values  
(3000, 'IND', '1983', 'NL', 'india007');
```

Test 2 :

```
insert into salaries (salary, teamid, yearid, lgid, masterid)VALUES (3000,  
'IND', '1983', 'NL', 'india007'); - This query will not work because the  
combination (teamid,yearid,salary) already exist
```