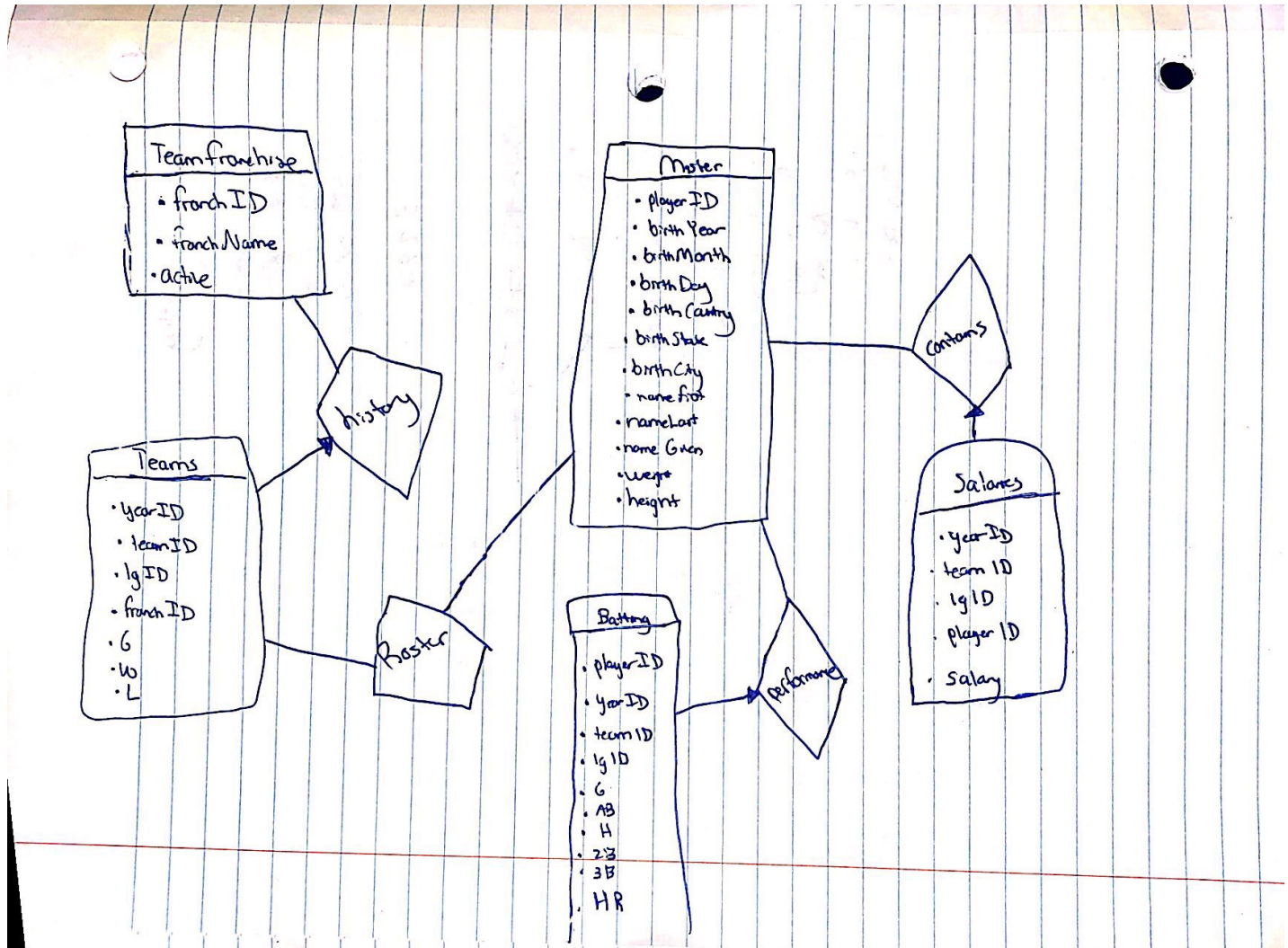


ER Diagram



SQL

1. How many franchises are listed in the database (see `count` (https://sqlite.org/lang_aggfunc.html#count))?

```
SELECT COUNT(*)
FROM TeamsFranchises
```

1 records

COUNT(*)

120

2. How many franchises are currently active?

```
SELECT COUNT(active)

FROM TeamsFranchises

WHERE active = 'Y'
```

1 records

COUNT(active)

30

3. Which teams won more than 100 games in one season between 2000 and 2015? Order result by descending number of wins. (attribute `w` of the `Teams` table contains the number of wins)

```
SELECT teamID, w

FROM Teams

WHERE Teams.yearid >= 2000 AND Teams.yearid <= 2015 AND teams.w >= 100

ORDER BY w DESC
```

Displaying records 1 - 10

teamID	w
SEA	116
SLN	105
NYA	103
OAK	103
NYA	103
OAK	102
PHI	102
ATL	101
NYA	101
ATL	101

4. What is the franchise name of the team with the most total wins in the database?

```
SELECT franchID, MAX(SUM)
from (SELECT franchID, SUM(W) AS SUM
FROM Teams
GROUP BY franchID)
```

1 records

franchID	MAX(SUM)
SFG	10951

5. What is the franchise name of the team with the highest winning percentage in a season in the database?
(Win percentage is W/G)

```
SELECT franchID, MAX(percentage)
FROM (
SELECT franchID, 100.0 * W / G as percentage
FROM Teams)
```

1 records

franchID	MAX(percentage)
BNA	86.58537

6. What is the franchise name of the team with the highest single-year payroll between 2000 and 2015?

```
Select franchID, sum from
(SELECT teamID, yearID, MAX(sum) as sum from
(SELECT teamID, yearID, SUM(salary) as sum
FROM Salaries
WHERE yearID >= 2000 and yearID <= 2015
GROUP BY teamID, yearID)) as joint_t join Teams
on joint_t.teamID = Teams.teamID and joint_t.yearID = teams.yearid
```

1 records

franchID	sum
NYN	231978886

7. (BONUS from MDSR book (<https://mdsr-book.github.io/>)): Identify players (by first and last name) that have attained through their career either a) 500 or more HRs or b) 3000 or more hits (H) *and* have not been inducted to the Hall of Fame (see HallOfFame table).

```

Select nameFirst, nameLast from

(Select total_id from

(Select players_new.playerID as total_id, total_hr, total_h, inducted from

(SELECT playerID, total_hr, total_h from

(SELECT playerID, SUM(HR) as total_hr, SUM(H) as total_h

from Batting

GROUP BY playerID)

where total_hr >= 500 or total_h >= 3000) as players_new

inner join HallOfFame on players_new.playerID = HallOfFame.playerID

group by total_id)

where inducted = 'N') as hof_no inner join Master

on hof_no.total_id = Master.playerID

```

8 records

nameFirst	nameLast
Barry	Bonds
Mark	McGwire
Rafael	Palmeiro
Manny	Ramirez
Pete	Rose
Gary	Sheffield
Sammy	Sosa
Honus	Wagner