QUERY RESULTS OF ASSIGNMENT 1

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(1) Use table players to find the count of the number of players in each position.

```
select position, count(ilkid)
from players
group by position;
```

position	count(ilkid)
C	579
F	1528
G	1465

(2) Find the top-5 most productive years, which is determined based on the total number of games played (gp) by all the players, including both regular seasons and playoffs, for each year. Solve ties by preferring chronologically older years, and print only the years.

```
with T as (
    select year, sum(gp) as games
    from player_playoffs
    group by year
    order by games desc, year
),
U as (
    select year, sum(gp) as games
    from player_regular_season
    group by year
    order by games desc, year
)
select Y
from (
```

```
    select T.year as Y, T.games + U.games as G
    from T, U
    where T.year = U.year
    order by G desc, Y
)
limit 5;
```

Y
2004
1993
1997
1995
1996

(3) In the table player_regular_season_career, add a new column eff (efficiency rating), which is defined as follows:

eff = (pts + reb + asts + stl + blk - ((fga - fgm) + (fta - ftm) + turnover))

```
alter table player_regular_season_career add eff INTEGER;
update player_regular_season_career set eff = pts + reb + asts +
stl + blk + fgm + ftm - fga - fta - turnover;
```

Among the players who have played more than 500 games, find the top-10 most efficient players.

```
with T as (
    select ilkid, sum(gp) as S,sum (eff) as E
    from player_regular_season_career
    group by ilkid
)
select T.ilkid
from T
where T.S > 500
order by T.E desc limit 10;
```

ilkid
ABDULKA01
CHAMBWI01
MALONKA01
MALONMO01
GILMOAR01
OLAJUHA01
ROBEROS01
ERVINJU01
HAYESEL01
JORDAMI01

(4) Find the number of players who have played more regular season games in the year 1990 than regular season games in any other year in their career.

```
with T as (
    select ilkid, sum(gp) as S, year
    from player_regular_season
    group by ilkid, year
    order by ilkid, S
)
select count (*)
from T as _T
where year = 1990 and not exists (
    select *
    from T as TT
    where TT.ilkid = _T.ilkid and TT.year != 1990 and TT.S >= _T.S
);
```

count (*)
57

(5) Use table player_regular_season_career to find the all-time best players. Use the two attributes gp (games played) and eff (efficiency rating) to compare players. For two players p1 and p2, we define that p1 dominates p2 if and only if p1 has a higher gp and eff value than p2.

Find a set of players (ilkid, firstname, lastname, gp, eff) P, so that each player in P is not dominated by any other player in the table player_regular_season_career. Return the output in ascending order of ilkid.

```
with T as (
    select ilkid, sum(gp) as S, eff, firstname as F, lastname as L
    from player_regular_season_career
    group by ilkid
)
select *
from T
where eff in (
    select eff
    from T
    order by eff desc
    limit 1
) or
S in (
    select S
    from T
    order by S desc
    limit 1
);
```

ilkid	S	eff	F	L
ABDULKA01	1560	48247	Kareem	Abdul-jabbar
PARISRO01	1611	30738	Robert	Parish