

We can get any table in excel format by running the command .excel before running the sql query.

### Query 1:

The query I used is:

```
SELECT (*), position  
FROM players  
GROUP BY position.
```

The output of the query is:

	A	B
1	579	C
2	1528	F
3	1465	G
4		

There are a total of 579 centers, 1528 forwards and 1465 guards.

### Query 2:

The query I used is :

```
SELECT year, SUM(gp) as total_games_played  
FROM player_playoffs  
GROUP BY year  
UNION  
SELECT year, SUM(gp) as total_games_played  
FROM player_regular_season  
GROUP BY year  
ORDER BY total_games_played  
DESC  
LIMIT 5;
```

The output of the query is :

	A	B
1	2004	28083
2	2003	27398
3	1995	26900
4	1997	26853
5	1996	26489

Therefore the most productive ears are 2004, 2003, 1995, 1997, and 1996

### Query 3:

The query I used is :

```
ALTER TABLE player_regular_season_career ADD total_games_played INT;  
ALTER TABLE player_regular_season_career eff INT;
```

The output is :

The schema of the table before adding the eff column is

```
CREATE TABLE player_regular_season_career(  
    ilkid VARCHAR(15) NOT NULL,  
    firstname VARCHAR(20) NOT NULL,  
    lastname VARCHAR(20) NOT NULL,  
    leag CHAR(1) NOT NULL,  
    gp INT,  
    minutes INT,  
    pts INT,  
    oreb INT,  
    dreb INT,  
    reb INT,  
    asts INT,  
    stl INT,  
    blk INT,  
    turnover INT,  
    pf INT,  
    fga INT,  
    fgm INT,  
    fta INT,  
    ftn INT,  
    tpa INT,  
    tpm INT,  
    PRIMARY KEY(ilkid,leag));
```

The schema of the table after adding the eff column is

```
CREATE TABLE player_regular_season_career(  
    ilkid VARCHAR(15) NOT NULL,  
    firstname VARCHAR(20) NOT NULL,  
    lastname VARCHAR(20) NOT NULL,  
    leag CHAR(1) NOT NULL,  
    gp INT,  
    minutes INT,  
    pts INT,  
    oreb INT,  
    dreb INT,  
    reb INT,  
    asts INT,  
    stl INT,  
    blk INT,  
    turnover INT,  
    pf INT,  
    fga INT,  
    fgm INT,  
    fta INT,  
    ftn INT,  
    tpa INT,  
    tpm INT, total_games_played INT, eff INT,  
    PRIMARY KEY(ilkid,leag));
```

The output after running the query for the top 10 most efficient players is

**Query 4:**

The query I used is :

```
SELECT COUNT(*)  
FROM player_regular_season AS num  
WHERE (year = 1990 AND num.gp) > (year !=1990 and num.gp)
```

The output is :

	A
1	441

There are a total of 441 players who played more games in 1990 than in any other year.