

6-19-2017

Examples from 6notes17 part 1

Movie(Title,Year,length,inColor,studioName,producerC#)

StarsIn(MovieTitle,MovieYear,StarName)

MovieStar(Name,address,gender,birthdate)

MovieExec(name,address,Cert#,netWorth)

Studio(Name,address,presC#)

Find the oldest movie star.

```
1 SELECT name
2 FROM moviestar
3 WHERE age >= ALL (
4     SELECT age FROM moviestar )
```

Find the producers of Harrison Ford's movies.

1. Using Cartesian Product

```
1 SELECT *
2 FROM starsin si, movie m, movieExec me
3 WHERE si.starname = 'Harrison Ford'
4 AND m.title = si.movietitle
5 AND m.year = si.movieyear
6 AND me.certNum = m.producerCnum
```

2. Using nested subqueries and comparison operator IN

```
1 SELECT name
2 FROM movieExec
3 WHERE cert# IN (
4     SELECT producerC#
5     FROM movies
6     WHERE (title,year) IN (
7         SLECT movietitle, movieyear
8         FROM starsin
9         WHERE starname = 'Harrison Ford' ) )
```

Examples from 6notes17 part 2

Movie(Title,Year,length,inColor,studioName,producerC#)

StarsIn(MovieTitle,MovieYear,StarName)
MovieStar(Name,address,gender,birthdate)
MovieExec(name,address,Cert#,netWorth)
Studio(Name,address,presC#)

Find all Movie Stars who are younger than the oldest colleague of their gender.

```
1 SELECT name
2 FROM moviestar AS old
3 WHERE age < ANY (
4     SELECT age
5     FROM moviestar
6     WHERE gender = old.gender )
```

Find all producers who made at least one film before 1990 can be rewritten to.

```
1 SELECT name
2 FROM movieExec AS me
3 WHERE EXISTS (
4     SELECT producer#
5     FROM movie
6     WHERE year < 1990
7     AND me.cert# = producer# )
```

Examples from 6notes17 part 4

Movie(Title,Year,length,inColor,studioName,producerC#)
StarsIn(MovieTitle,MovieYear,StarName)
MovieStar(Name,address,gender,birthdate)
MovieExec(name,address,Cert#,netWorth)
Studio(Name,address,presC#)

Find each producer's total length of film produced.

```
1 SELECT name, SUM(length)
2 FROM movie, movieExec
3 WHERE producerC# = cert#
4 GROUP BY name
5 ORDER BY name ASC
```

For each movie star, list the sum of the length of all the movies they have acted in AND the length of the longest movie they have acted in.

```
1 SELECT starname, SUM(length), MAX(length)
2 FROM starsin, movie
3 WHERE movietitle = title
4 AND movieyear = year
5 GROUP BY starname
```

Examples from 6notes17 part 5

Movie(Title,Year,length,inColor,studioName,producerC#)

StarsIn(MovieTitle,MovieYear,StarName)

MovieStar(Name,address,gender,birthdate)

MovieExec(name,address,Cert#,netWorth)

Studio(Name,address,presC#)

Find total length of movies for producers with net worth greater than \$5000.

```
1 SELECT name, SUM(length)
2 FROM movie, movieExec
3 WHERE producerC# = cert#
4 GROUP BY name
5 HAVING netWorth < 5000
6 AND SUM(length) > 100
```

Find total film length for only those producers who made at least one film before 1930.

```
1 SELECT name, SUM(length)
2 FROM movie, movieExec
3 WHERE producerC# = cert#
4 GROUP BY name
5 HAVING MIN(year) < 1960
```

List studios who have at least 4 stars in all the movies the studio has made.

```
1 SELECT studioname
2 FROM movie, starsin
3 WHERE title = movietitle
4 AND year = movieyear
5 GROUP BY studioname
6 HAVING COUNT(*) > 4
```

List studios who have at least 4 distinct stars in all the movies the studio has made.

```
1 SELECT studioname
2 FROM movie, starsin
3 WHERE title = movietitle
4 AND year = movieyear
5 GROUP BY studioname
6 HAVING COUNT(DISTINCT starname) > 4
```