

Database week 3 answers

1.1 Assignment 1

1. write a SQL query that lists the names of songs that are by Post Malone.

```
SELECT songs.name  
FROM songs, artists  
WHERE songs.artist_id = artists.id  
AND artists.name = "Post Malone";
```

name
rockstar (feat. 21 Savage)
Psycho (feat. Ty Dolla \$ign)
Better Now
I Fall Apart
Candy Paint
Congratulations

2. write a SQL query that returns the average energy of songs that are by Drake.

```
SELECT AVG(energy)  
FROM songs, artists  
WHERE songs.artist_id = artists.id  
AND artists.name = "Drake";
```

AVG(energy)
0.599

1.2 Assignment 2

1. write a SQL query to list the titles and release years of all Harry Potter movies, in chronological order.

```
SELECT title, year
FROM movies
WHERE title like 'Harry Potter%'
ORDER BY year ASC
```

title	year
Harry Potter and the Sorcerer's Stone	2001
Harry Potter and the Chamber of Secrets	2002
Harry Potter and the Prisoner of Azkaban	2004
Harry Potter and the Goblet of Fire	2005
Harry Potter and the Order of the Phoenix	2007
Harry Potter and the Half-Blood Prince	2009
Harry Potter and the Deathly Hallows: Part 1	2010
Harry Potter and the Deathly Hallows: Part 2	2011
Harry Potter and the Untold Stories of Hogwarts	2012
Harry Potter and the Cursed Child	2016
Harry Potter: A History of Magic	2017

2. write a SQL query to determine the average rating of all movies released in 2012.

```
SELECT AVG(rating)
FROM ratings, movies
where ratings.movie_id = movies.id
AND movies.year = 2012
```

AVG(rating)

6.9

3. write a SQL query to list all movies released in 2010 and their ratings, in descending order by rating. For movies with the same rating, order them alphabetically by title.

```
SELECT title, rating
FROM ratings, movies
where ratings.movie_id = movies.id
AND movies.year = 2010
ORDER BY rating DESC, title;
```

title ▲ 2	rating ▼ 1
Spider-Man: Far from Home	7.4
Spider-Man: Identity	6.3

4. write a SQL query to list the names of all people who starred in Spider-man.

```
SELECT name
FROM movies, people, stars
WHERE movies.id = stars.movie_id
AND people.id = stars.person_id
AND movies.title = "Spider-man";
```

name
Tobey Maguire
Kirsten Dunst
Willem Dafoe
James Franco

5. write a SQL query to list the names of all people who starred in a movie released in 2004, ordered by birth year.

```
SELECT name
FROM movies, people, stars
WHERE movies.id = stars.movie_id
AND people.id = stars.person_id
AND movies.year = 2004
ORDER BY birth;
```

name
Alfred Molina
Tobey Maguire
James Franco
Kirsten Dunst

- write a SQL query to list the names of all people who have directed a movie that received a rating of at least 8.0.

```
SELECT name
FROM movies, people, directors, ratings
WHERE movies.id = directors.movie_id
AND people.id = directors.person_id
AND ratings.movie_id = movies.id
AND ratings.rating >= 8.0
```

name
Bob Richardson
Bob Persichetti
Peter Ramsey
Rodney Rothman
Cameron Dodd

- write a SQL query to list the titles of the five highest rated movies (in order) that Zendaya starred in, starting with the highest rated.

```
SELECT title
FROM movies, people, ratings, stars
WHERE movies.id = stars.movie_id
AND people.id = stars.person_id
AND ratings.movie_id = movies.id
AND people.name = "Zendaya"
ORDER BY ratings.rating DESC
LIMIT 5
```

- write a SQL query to list the titles of all movies in which both Tom Holland and Andrew Garfield starred.

```
SELECT movies.title FROM movies
WHERE movies.id IN (
    SELECT stars.movie_id FROM stars
```

```

        WHERE stars.person_id IN (
            SELECT people.id FROM people
            WHERE people.name = "Tom Holland"
            OR people.name = "Andrew Garfield"
        )
    GROUP BY stars.movie_id
    HAVING COUNT(stars.movie_id) = 2
)

SELECT movies.title FROM movies
WHERE movies.id IN (
    SELECT stars.movie_id FROM stars
        WHERE stars.person_id IN (
            SELECT people.id FROM people
            WHERE people.name = "Tom Holland"
        ))
AND movies.id IN (
    SELECT stars.movie_id FROM stars
        WHERE stars.person_id IN (
            SELECT people.id FROM people
            WHERE people.name = "Andrew Garfield"
        )
)
)


































```

9. write a SQL query to list the names of all people who starred in a movie in which Tobey Maguire also starred.

```

SELECT people.name FROM people WHERE people.id IN
    (SELECT DISTINCT stars.person_id FROM stars WHERE stars.movie_id IN
        (SELECT stars.movie_id FROM stars WHERE stars.person_id IN
            (SELECT people.id FROM people WHERE name = 'Tobey Maguire'))
        AND stars.person_id NOT IN (SELECT people.id FROM people
            WHERE name = 'Tobey Maguire'));

```

← T →				name
<input type="checkbox"/>	 Edit	 Copy	 Delete	Willem Dafoe
<input type="checkbox"/>	 Edit	 Copy	 Delete	Kirsten Dunst
<input type="checkbox"/>	 Edit	 Copy	 Delete	Alfred Molina
<input type="checkbox"/>	 Edit	 Copy	 Delete	Thomas Haden Church
<input type="checkbox"/>	 Edit	 Copy	 Delete	James Franco
<input type="checkbox"/>	 Edit	 Copy	 Delete	Topher Grace
<input type="checkbox"/>	 Edit	 Copy	 Delete	Paula Newsome
<input type="checkbox"/>	 Edit	 Copy	 Delete	Benedict Cumberbatch
<input type="checkbox"/>	 Edit	 Copy	 Delete	Andrew Garfield
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<input type="checkbox"/>	 Edit	 Copy	 Delete	Tom Holland

10. write a SQL query to find the actor who has the highest difference between their best and their worst rated movie

```
SELECT name, max(rating), min(rating), (max(rating)-min(rating)) as xxx
FROM movies, stars, people, ratings
WHERE movies.id = stars.movie_id
  AND stars.person_id = people.id
  AND movies.id = ratings.movie_id
group by name
order by xxx desc
limit 1;
```

name	max(rating)	min(rating)	diff
Tobey Maguire	8.6	6.2	2.3999999999999995

1.3 Assignment 3

- Who the thief is: Bruce
- Where the thief escaped to: Groningen-Eelde
- The ACCOMPLICE is: Robin