TEST QUERIES

1. Simple Searches

   a. Find movies whose titles start with “Trans”.

      SELECT m.title, m.year
      FROM movies m
      WHERE m.title LIKE 'Trans%';

      330 rows in set

   b. Find movies released in 2007 with user rating greater than 7.0.

      SELECT m.title, m.year
      FROM movies m
      INNER JOIN ratings r ON m.title=r.title AND m.year=r.year
      WHERE m.year=2007
      AND r.rating>7;

      1536 rows in set

2. Complex Searches

   a. Find all the movies directed by Martin Scorsese.

      SELECT m.title, m.year
      FROM movies m
      INNER JOIN directors d on m.title=d.title AND m.year=d.year
      WHERE d.name LIKE 'Scorsese, Martin,'

      51 rows in set

   b. Find all actors and actresses who acted in the movies directed by Woody Allen.

      (SELECT a.name
       FROM actors a
       INNER JOIN directors d ON a.title=d.title AND a.year=d.year
       WHERE d.name LIKE 'Allen, Woody')
      UNION
      (SELECT a.name
       FROM actresses a
       INNER JOIN directors d ON a.title=d.title AND a.year=d.year
       WHERE d.name LIKE 'Allen, Woody');

      1835 rows in set
c. Find all movies that have Megan Fox, Josh Duhamel, and Anthony Anderson.

```
SELECT m.title, m.year
FROM movies m
INNER JOIN actresses a1 ON m.title=a1.title AND m.year=a1.year
INNER JOIN actors a2 ON m.title=a2.title AND m.year=a2.year
INNER JOIN actors a3 ON m.title=a3.title AND m.year=a3.year
WHERE a1.name LIKE 'Fox, Megan'
AND a2.name LIKE 'Duhamel, Josh'
AND a3.name LIKE 'Anderson, Anthony';
```

1 row in set (Transformers - 2007)

d. Find all movies that have Tom Cruise acting and Steven Spielberg directing.

```
SELECT m.title, m.year
FROM movies m
INNER JOIN actors a ON m.title=a.title AND m.year=a.year
INNER JOIN directors d ON m.title=d.title AND m.year=d.year
WHERE a.name LIKE 'Cruise, Tom' AND d.name LIKE 'Spielberg, Steven';
```


3. Top K Searches

a. Show top 20 movies in 2007 based on user ratings.

```
SELECT m.title, m.year, r.rating
FROM movies m
INNER JOIN ratings r ON m.title=r.title AND m.year=r.year
WHERE m.year=2007
ORDER BY r.rating DESC
LIMIT 20;
```

20 rows in set

4. Database updates, User Rating, etc.

a. Add a new movie (Iron Man 2, 2010, mpaa-rating=PG-13)

```
INSERT INTO movies (title, year)
VALUES('Iron Man 2', 2010);
```

```
INSERT INTO mpaa_ratings (title, year, mpaa_rating)
VALUES('Iron Man 2', 2010, 'PG-13');
```
VALUES('Iron Man 2', 2010, 'PG-13');

After a user rates it,

b. Retrieve the current rating of Iron Man 2.

```
SELECT r.votes, r.rating
FROM ratings r
WHERE title LIKE 'Iron Man 2' AND year=2008;
```

1 row in set