INSTRUCTIONS

- You have 10 minutes to complete this quiz.
- The exam is closed book, closed notes, closed computer, closed calculator.
- The final score for this quiz will be assigned based on effort rather than correctness.
- Mark your answers on the exam itself. We will not grade answers written on scratch paper.
- For multiple choice questions,
  - □ means mark all options that apply
  - ○ means mark a single choice

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<tr>
<td>First name</td>
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<td>Student ID number</td>
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<td>CalCentral email (<a href="mailto:_@berkeley.edu">_@berkeley.edu</a>)</td>
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<tr>
<th>Teaching Assistant</th>
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<tbody>
<tr>
<td>○ Alex Stennet</td>
<td>○ Kelly Chen</td>
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<td>○ Angela Kwon</td>
<td>○ Michael Gibbes</td>
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<td>○ Ashley Chien</td>
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<td>○ Joyce Luong</td>
<td>○ Mitas Ray</td>
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<td>○ Karthik Bharathala</td>
<td>○ Rocky Duan</td>
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<td>○ Kavi Gupta</td>
<td>○ Samantha Wong</td>
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Name of the person to your left

Name of the person to your right

All the work on this exam is my own. (please sign)
1. (5 points) Sequels

Assume that the following table of movie ratings has been created.

```
create table ratings as
  select "The Matrix" as title, 1999 as year, 9 as rating union
  select "The Matrix Reloaded", 2003, 7 union
  select "The Matrix Revolutions", 2003, 5 union
  select "Toy Story", 1994, 8 union
  select "Toy Story 2", 1999, 8 union
  select "Toy Story 3", 2010, 9 union
  select "Terminator", 1984, 8 union
  select "Judgment Day", 1991, 9 union
  select "Rise of the Machines", 2003, 5;
```

Express the following queries in SQL using only features we've covered in this course.

(a) (1 pt) Select the titles of all movies that have a rating greater than 7 in alphabetical order.

```
select ________________________________;
```

(b) (2 pt) Select the titles of all movie triplets for which there exist 3 movies that have the same rating. Include the titles of all three movies in the result. The results should appear in alphabetical order.

Judgement Day|The Matrix|Toy Story 3
Terminator|Toy Story|Toy Story 2

```
select ________________________________
from ________________________________
where ________________________________;
```

(c) (2 pt) For each group of movies containing at least 2 movies with the same rating, select the rating and year difference (from the group average) of the first movie released to achieve that rating. For example, The Matrix Reloaded was the only movie to receive a rating of 7 so it does not have a group. Judgement Day was released in 1991, 9 years before the average year (2000) for movies rated 9.

```
5|0
8|-8.333333333333258
9|-9
```

with average as (select ________________________________
  from _________________ group by ______________ having ________________)

```
select ________________________________
from ________________________________
where ________________________________
  group by ________________________________;
```