Table: Movies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Id** | **Title** | **Director** | **Year** | **Length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 10 | Up | Pete Docter | 2009 | 101 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

Questions

1. Find the **title** of each film ✓
2. Find the **director** of each film
3. Find the **title** and **director** of each film
4. Find the **title** and **year** of each film
5. Find **all** the information about each film

Answers

SELECT \* FROM movies;

SELECT title FROM movies;

SELECT title,director FROM movies;

2)Table: Employees

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Name** | **Building** | **Years\_employed** |
| Engineer | Becky A. | 1e | 4 |
| Engineer | Dan B. | 1e | 2 |
| Engineer | Sharon F. | 1e | 6 |
| Engineer | Dan M. | 1e | 4 |
| Engineer | Malcom S. | 1e | 1 |
| Artist | Tylar S. | 2w | 2 |
| Artist | Sherman D. | 2w | 8 |
| Artist | Jakob J. | 2w | 6 |
| Artist | Lillia A. | 2w | 7 |
| Artist | Brandon J. | 2w | 7 |
| Manager | Scott K. | 1e | 9 |
| Manager | Shirlee M. | 1e | 3 |
| Manager | Daria O. | 2w | 6 |

[RESET](https://sqlbolt.com/lesson/select_queries_with_aggregates)

Exercise 10 — Tasks

1. Find the longest time that an employee has been at the studio
2. For each role, find the average number of years employed by employees in that role
3. Find the total number of employee years worked in each building

Answers

SELECT \*,MAX(Years\_employed) FROM employees

SELECT \*,Name,AVG(Years\_employed) FROM employees GROUP BY Role

SELECT \*,SUM(Years\_employed) AS TOTAL FROM employees group by Building

3) Table: Employees

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Name** | **Building** | **Years\_employed** |
| Engineer | Becky A. | 1e | 4 |
| Engineer | Dan B. | 1e | 2 |
| Engineer | Sharon F. | 1e | 6 |
| Engineer | Dan M. | 1e | 4 |
| Engineer | Malcom S. | 1e | 1 |
| Artist | Tylar S. | 2w | 2 |
| Artist | Sherman D. | 2w | 8 |
| Artist | Jakob J. | 2w | 6 |
| Artist | Lillia A. | 2w | 7 |
| Artist | Brandon J. | 2w | 7 |
| Manager | Scott K. | 1e | 9 |
| Manager | Shirlee M. | 1e | 3 |
| Manager | Daria O. | 2w | 6 |

[RESET](https://sqlbolt.com/lesson/select_queries_with_aggregates_pt_2)

SELECT \* FROM employees;

Exercise 11 — Tasks

1. Find the number of Artists in the studio (without a **HAVING** clause)
2. Find the number of Employees of each role in the studio
3. Find the total number of years employed by all Engineers

ANSWERS

SELECT \*,COUNT(Role) FROM employees Where Role IS "Artist";

SELECT \*,COUNT(Role) FROM employees group by Role ;

SELECT \*,SUM(Years\_employed) FROM employees WHERE Role is "Engineer" ;

4)Table: Movies (Read-Only)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Id** | **Title** | **Director** | **Year** | **Length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 10 | Up | Pete Docter | 2009 | 101 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

Table: Boxoffice (Read-Only)

|  |  |  |  |
| --- | --- | --- | --- |
| **Movie\_id** | **Rating** | **Domestic\_sales** | **International\_sales** |
| 5 | 8.2 | 380843261 | 555900000 |
| 14 | 7.4 | 268492764 | 475066843 |
| 8 | 8 | 206445654 | 417277164 |
| 12 | 6.4 | 191452396 | 368400000 |
| 3 | 7.9 | 245852179 | 239163000 |
| 6 | 8 | 261441092 | 370001000 |
| 9 | 8.5 | 223808164 | 297503696 |
| 11 | 8.4 | 415004880 | 648167031 |
| 1 | 8.3 | 191796233 | 170162503 |
| 7 | 7.2 | 244082982 | 217900167 |
| 10 | 8.3 | 293004164 | 438338580 |
| 4 | 8.1 | 289916256 | 272900000 |
| 2 | 7.2 | 162798565 | 200600000 |
| 13 | 7.2 | 237283207 | 301700000 |

Query Results

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Id** | **Title** | **Director** | **Year** | **Length\_minutes** | **Count(Director)** |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 | 2 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 | 2 |
| 13 | Brave | Brenda Chapman | 2012 | 102 | 1 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 | 1 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 | 5 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 | 1 |

SELECT \* ,count(Director) FROM movies group by Director;

Exercise 12 — Tasks

1. Find the number of movies each director has directed ✓
2. Find the total domestic and international sales that can be attributed to each director

ANSWERS

SELECT \* ,count(Director) FROM movies group by Director;

SELECT Director, SUM(Domestic\_sales+International\_sales) AS TOTAL FROM movies JOIN BoxOffice ON Id=Movie\_id group by Director

5) Table: Movies (Read-Only)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Id** | **Title** | **Director** | **Year** | **Length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |

Table: Boxoffice (Read-Only)

|  |  |  |  |
| --- | --- | --- | --- |
| **Movie\_id** | **Rating** | **Domestic\_sales** | **International\_sales** |
| 3 | 7.9 | 245852179 | 239163000 |
| 1 | 8.3 | 191796233 | 170162503 |
| 2 | 7.2 | 162798565 | 200600000 |

Query Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Id** | **Title** | **Director** | **Year** | **Length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 10 | Up | Pete Docter | 2009 | 101 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

SELECT \* FROM movies;

Exercise 13 — Tasks

1. Add the studio's new production, **Toy Story 4** to the list of movies (you can use any director)
2. Toy Story 4 has been released to critical acclaim! It had a rating of **8.7**, and made **340 million domestically** and **270 million internationally**. Add the record to the **BoxOffice** table.

ANSWERS

INSERT INTO Movies(Title,Director) VALUES ("Toy Story 4","Brad Bird");

5) Table: Movies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Id** | **Title** | **Director** | **Year** | **Length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1899 | 93 |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 10 | Up | Pete Docter | 2009 | 101 |
| 11 | Toy Story 8 | El Directore | 2010 | 103 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

Exercise 14 — Tasks

1. The director for A Bug's Life is incorrect, it was actually directed by **John Lasseter** ✓
2. The year that Toy Story 2 was released is incorrect, it was actually released in **1999**
3. Both the title and director for Toy Story 8 is incorrect! The title should be "Toy Story 3" and it was directed by **Lee Unkrich**

Table: Movies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Id** | **Title** | **Director** | **Year** | **Length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1899 | 93 |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 10 | Up | Pete Docter | 2009 | 101 |
| 11 | Toy Story 8 | El Directore | 2010 | 103 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

[RUN QUERYRESET](https://sqlbolt.com/lesson/updating_rows)

1. The director for A Bug's Life is incorrect, it was actually directed by **John Lasseter** ✓
2. The year that Toy Story 2 was released is incorrect, it was actually released in **1999**
3. Both the title and director for Toy Story 8 is incorrect! The title should be "Toy Story 3" and it was directed by **Lee Unkrich**

UPDATE movies

SET Director = "John Lasseter"

WHERE id = 2;

UPDATE movies

SET **Year**= **1999**

WHERE **Title**= “  
Toy Story 2”;

UPDATE movies

SET Title = "Toy Story 3", director = "Lee Unkrich"

WHERE id = 11;

;

7) Table: Movies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Id** | **Title** | **Director** | **Year** | **Length\_minutes** |
| 1 | Toy Story | John Lasseter | 1995 | 81 |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 |
| 6 | The Incredibles | Brad Bird | 2004 | 116 |
| 7 | Cars | John Lasseter | 2006 | 117 |
| 8 | Ratatouille | Brad Bird | 2007 | 115 |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 |
| 10 | Up | Pete Docter | 2009 | 101 |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 |
| 12 | Cars 2 | John Lasseter | 2011 | 120 |
| 13 | Brave | Brenda Chapman | 2012 | 102 |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 |

[RUN QUERYRESET](https://sqlbolt.com/lesson/deleting_rows)

Exercise 15 — Tasks

1. This database is getting too big, lets remove all movies that were released **before** 2005.
2. Andrew Stanton has also left the studio, so please remove all movies directed by him.

Answers

delete FROM movies where year<2005;

delete from Movies where Director="Andrew Stanton"

CREATING A TABLE

**CREATE TABLE Database (**

**Name TEXT,**

**Version FLOAT,**

**Download\_count INTEGER**

**);**

**8)** Table: Movies

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Id** | **Title** | **Director** | **Year** | **Length\_minutes** | **Aspect\_ratio** |
| 1 | Toy Story | John Lasseter | 1995 | 81 | FLOAT |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 | FLOAT |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 | FLOAT |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 | FLOAT |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 | FLOAT |
| 6 | The Incredibles | Brad Bird | 2004 | 116 | FLOAT |
| 7 | Cars | John Lasseter | 2006 | 117 | FLOAT |
| 8 | Ratatouille | Brad Bird | 2007 | 115 | FLOAT |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 | FLOAT |
| 10 | Up | Pete Docter | 2009 | 101 | FLOAT |
| 11 | Toy Story 3 | Lee Unkrich | 2010 | 103 | FLOAT |
| 12 | Cars 2 | John Lasseter | 2011 | 120 | FLOAT |
| 13 | Brave | Brenda Chapman | 2012 | 102 | FLOAT |
| 14 | Monsters University | Dan Scanlon | 2013 | 110 | FLOAT |

[RUN QUERYRESET](https://sqlbolt.com/lesson/altering_tables)

Exercise 17 — Tasks

1. Add a column named **Aspect\_ratio** with a **FLOAT** data type to store the aspect-ratio each movie was released in. ✓
2. Add another column named **Language** with a **TEXT** data type to store the language that the movie was released in. Ensure that the default for this language is **English**.

ALTER TABLE Movies

ADD COLUMN Language TEXT DEFAULT "English";