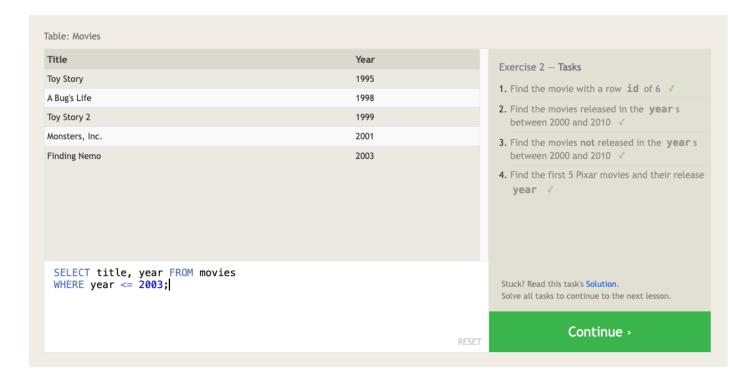
Database - MySQLBolt Screenshots

Writing SQL Queries

SQL Lesson 1: SELECT queries 101

| d | Title | Director | Year | Length_minutes | | Exercise 1 – Tasks |
|----|----------------------|----------------|------|----------------|------|---|
| 1 | Toy Story | John Lasseter | 1995 | 81 | | 1. Find the title of each film ✓ |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 | | |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 | | 2. Find the director of each film ✓ |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 | | Find the title and director of each film √ |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 | | 4. Find the title and year of each film |
| 6 | The Incredibles | Brad Bird | 2004 | 116 | | √ |
| 7 | Cars | John Lasseter | 2006 | 117 | | 5. Find all the information about each film |
| 8 | Ratatouille | Brad Bird | 2007 | 115 | | ✓ |
| 9 | WALL-E | Andrew Stanton | 2008 | 104 | | |
| 10 | Up | Pete Docter | 2009 | 101 | | |
| SE | ELECT * FROM movies; | | | | ESET | Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson. Continue > |

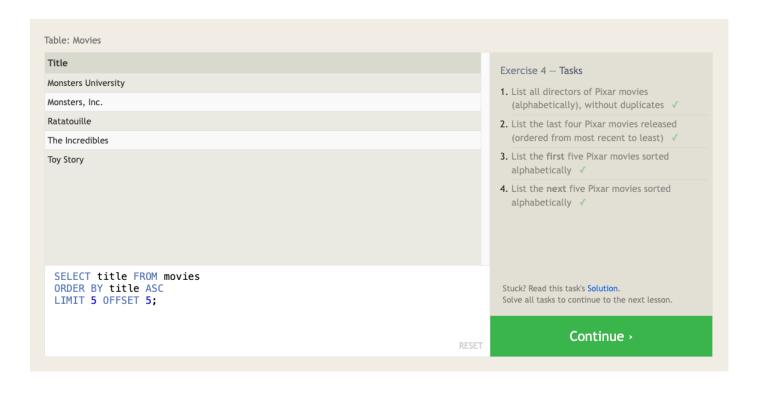
SQL Lesson 2: Queries with constraints (Pt. 1)



SQL Lesson 3: Queries with constraints (Pt. 2)



SQL Lesson 4: Filtering and sorting Query results



SQL Review: Simple SELECT Queries

| City | Population | Review 1 — Tasks |
|--|------------|---|
| Chicago | 2718782 | 1. List all the Canadian cities and their |
| Houston | 2195914 | populations ✓ |
| | | 2. Order all the cities in the United States their latitude from north to south ✓ |
| | | List all the cities west of Chicago, order from west to east √ |
| | | List the two largest cities in Mexico (by population) √ |
| | | 5. List the third and fourth largest cities (be population) in the United States and the population √ |
| SELECT city, pop WHERE country LI ORDER BY populat LIMIT 2 OFFSET 2 | | Stuck? Read this task's Solution . Solve all tasks to continue to the next lesson. |
| 2 011321 2 | · 11 | Continue > |

SQL Lesson 6: Multi-table queries with JOINs

| abl | e: Movies (Read-Only) | | | | Table: Boxoff | ice (Reau-C | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
|---------------|--|----------------|--------|----------------|---------------|-------------|--|---|--|
| ld | Title | Director | Year | Length_minutes | Movie_id | Rating | Domestic_sales | International_sales | |
| 1 | Toy Story | John Lasseter | 1995 | 81 | 5 | 8.2 | 380843261 | 555900000 | |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 | 14 | 7.4 | 268492764 | 475066843 | |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 | 8 | 8 | 206445654 | 417277164 | |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 | 12 | 6.4 | 191452396 | 368400000 | |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 | 3 | 7.9 | 245852179 | 239163000 | |
| 6 | The Incredibles | Brad Bird | 2004 | 116 | 6 | 8 | 261441092 | 370001000 | |
| - | - | | | | - | | | | |
|)ue | ry Results | | | | | | | | |
| Titl | e | | | Rati | ng | | Exercise 6 — Task | | |
| WAI | _L-E | | | 8.5 | | | Find the domestic and international sales for each movie √ | | |
| Toy | Story 3 | | | 8.4 | | | | | |
| Toy Story 8.3 | | | | | | | 2. Show the sales numbers for each movie that | | |
| Up | | 8.3 | | | | | did better internationally rather than | | |
| Fine | ding Nemo | | | 8.2 | | | domestically 🗸 | | |
| Mor | sters, Inc. | | | 8.1 | | | List all the movies by their ratings in descending order √ | | |
| Rat | atouille | | | 8 | | | | | |
| The | Incredibles | | | 8 | | | | | |
| Toy | Story 2 | | | 7.9 | | | | | |
| Mor | sters University | | | 7.4 | | | | | |
| F | ELECT title, rat ROM movies JOIN boxoffice ON movies.id RDER BY rating D | = boxoffice.mo | vie_id | | | | | k's Solution. Intinue to the next lesson. Ontinue > | |
| | | | | | | RESET | | orientae · | |

SQL Lesson 7: OUTER JOINs

| Building_name | Capacity | | Role | Name | Building | Years_employed | | |
|---|--------------|----------|----------|-----------|---------------------|-------------------------------|--|--|
| 1e | 24 | | Engineer | Becky A. | 1e | 4 | | |
| 1w | 32 | | Engineer | Dan B. | 1e | 2 | | |
| 2e | 16 | | Engineer | Sharon F. | 1e | 6 | | |
| 2w | 20 | | Engineer | Dan M. | 1e | 4 | | |
| | | | Engineer | Malcom S. | 1e | 1 | | |
| | | | Artist | Tylar S. | 2w | 2 | | |
| | | | | | - | - | | |
| Query Results | | | | | | | | |
| Building_name | | Role | | | Exercise 7 – Ta | isks | | |
| 1e | | Engineer | | | 1. Find the list of | of all buildings that have | | |
| 1e | | Manager | | | employees | | | |
| 1w | | | | | | of all buildings and their | | |
| 2e | | | | | capacity ✓ | ngs and the distinct employee | | |
| 2w | | Artist | | | | building (including empty | | |
| 2w | | Manager | | | buildings) ✓ | buildings) ✓ | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| SELECT DISTINCT building FROM buildings | g_name, role | | | | Stuck? Read this t | | | |
| LEFT JOIN employees ON building_name = | building; | | | | Solve all tasks to | continue to the next lesson. | | |
| - - | | | | | | Continue > | | |
| | | | | RESET | | Continue > | | |

SQL Lesson 8: A short note on NULLs

| ad-Only) Table: Employees (| (Read-Only) | | |
|--|-------------|--------------------------|--|
| Capacity Role Na | ame | Building | Years_employed |
| 24 Engineer Bed | ecky A. | 1e | 4 |
| 32 Engineer Dar | an B. | 1e | 2 |
| 16 Engineer Sha | aron F. | 1e | 6 |
| 20 Engineer Dar | an M. | 1e | 4 |
| Engineer Ma | alcom S. | 1e | 1 |
| Artist Tyl | lar S. | 2w | 2 |
| | Fyerc | ise 8 — Tasks | |
| | Exerc | ise 8 – Tasks | |
| | | | role of all employees who gned to a building 🗸 |
| | | d the names of ployees √ | the buildings that hold no |
| NCT building_name gs employees ing_name = building S NULL; | | | iolution. The to the next lesson. |
| • | | RESET | RESET |

SQL Lesson 9: Queries with expressions

| | | | ., | | | | | | | |
|----------------------|------------------|----------------|------|----------------|----------|----------------------|---|---|--|--|
| d | Title | Director | | Length_minutes | Movie_id | Rating | Domestic_sales | International_sales | | |
| l | Toy Story | John Lasseter | 1995 | 81 | 5 | 8.2 | 380843261 | 555900000 | | |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 | 14 | 7.4 | 268492764 | 475066843 | | |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 | 8 | 8 | 206445654 | 417277164 | | |
| 1 | Monsters, Inc. | Pete Docter | 2001 | 92 | 12 | 6.4 | 191452396 | 368400000 | | |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 | 3 | 7.9 | 245852179 | 239163000 | | |
| ó | The Incredibles | Brad Bird | 2004 | 116 | 6 | 8 | 261441092 | 370001000 | | |
| | - | | | | - | | | | | |
| uer | ry Results | | | | | | | | | |
| Γitl | e | | | Yea | ar | | Exercise 9 – Tasks | | | |
| A Bug's Life 1998 | | | | | | | | List all movies and their combined sales in | | |
| The Incredibles 2004 | | | | | | | millions of dollars ✓ | | | |
| Cars | ars 2006 | | | | | 2. List all movies a | 2. List all movies and their ratings in percent | | | |
| WAL | .L-E | | | 200 | 08 | | ✓ | | | |
| Гоу | Story 3 | | | 201 | 0 | | | hat were released on even | | |
| 3rav | ve | | | 201 | 2 | | number years 🔻 | number years ✓ | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| SI | ELECT title, yea | r | | | | | | | | |
| FF | ROM movies | | | | | | Stuck? Read this task | 's Solution. | | |
| W | HERE year % 2 = | v; | | | | | Solve all tasks to con | tinue to the next tesson. | | |
| | | | | | | | - C | ontinue > | | |
| | | | | | | RESET | | Sircinae > | | |

SQL Lesson 10: Queries with aggregates (Pt. 1)



SQL Lesson 11: Queries with aggregates (Pt. 2)



SQL Lesson 12: Order of execution of a Query

| Id | e: Movies (Read-Only Title | Director | Year | Length_minutes | Table: Boxoff Movie_id | Rating | Domestic_sales | International_sales | |
|------------|--|--|--------|----------------|-------------------------|--------|---|---|--|
| 1 | Toy Story | John Lasseter | 1995 | 81 | 5 | 8.2 | 380843261 | 555900000 | |
| 2 | A Bug's Life | John Lasseter | 1998 | 95 | 14 | 7.4 | 268492764 | 475066843 | |
| 3 | Toy Story 2 | John Lasseter | 1999 | 93 | 8 | 8 | 206445654 | 417277164 | |
| 4 | Monsters, Inc. | Pete Docter | 2001 | 92 | 12 | 6.4 | 191452396 | 368400000 | |
| 5 | Finding Nemo | Andrew Stanton | 2003 | 107 | 3 | 7.9 | 245852179 | 239163000 | |
| 6 | The Incredibles | Brad Bird | 2004 | 116 | 6 | 8 | 261441092 | 370001000 | |
| - | - | | | = | • | | | 00==00/0/ | |
| Bra Bre | Irew Stanton d Bird nda Chapman | 1458055121 1255164910 538983207 743559607 | | | | | directed ✓ 2. Find the total of | er of movies each director ha domestic and international domestic and international | |
| Joh | n Lasseter Unkrich | 2232208025 1063171911 | | | | | ✓ | | |
| | e Docter | 1294159000 | | | | | | | |
| | Cumulative_s ROM movies INNER JOIN b | sales_from_all_ | movies | | _sales) as | | Stuck? Read this tas Solve all tasks to co | K's Solution. Intinue to the next lesson. | |

SQL Lesson 13: Inserting rows

| | e: Movies (Read | | Vern | Laureth minutes | Table: Boxoff | | • | International cales |
|------|-----------------|------------|----------------|----------------------|---------------|--------|---|---|
| ld | | Director | | Length_minutes | Movie_id | Rating | Domestic_sales | International_sales |
| 1 | Toy Story | John Lass | | 81 | 3 | 7.9 | 245852179 | 239163000 |
| 2 | A Bug's Life | John Lass | | 95 | 1 | 8.3 | 191796233 | 170162503 |
| 3 | Toy Story 2 | John Lass | eter 1999 | 93 | 2 | 7.2 | 162798565 | 200600000 |
| 4 | Toy Story 4 | El Directo | ore 2015 | 90 | 4 | 8.7 | 340000000 | 270000000 |
| | | | | | | | | |
|)uer | y Results | | | | | | | |
| Mov | rie_id | Rating | Domestic_sales | Internationa | l_sales | | Exercise 13 — Tasl | ks |
| 3 | | 7.9 | 245852179 | 239163000 | | | | new production, Toy Story 4 |
| 1 | | 8.3 | 191796233 | 170162503 | | | | vies (you can use any |
| 2 | | 7.2 | 162798565 | 200600000 | | | director) ✓ | |
| 4 | | 8.7 | 340000000 | 270000000 | | | | peen released to critical |
| | | | | | | | million domesti | a rating of 8.7 , and made 34 cally and 270 million Add the record to the able. √ |
| I | NSERT INTO | boxoffice | e VALUES (4, 8 | 3.7, 340000000, 2700 | 00000); | | Stuck? Read this task Solve all tasks to con | 's Solution . tinue to the next lesson. |

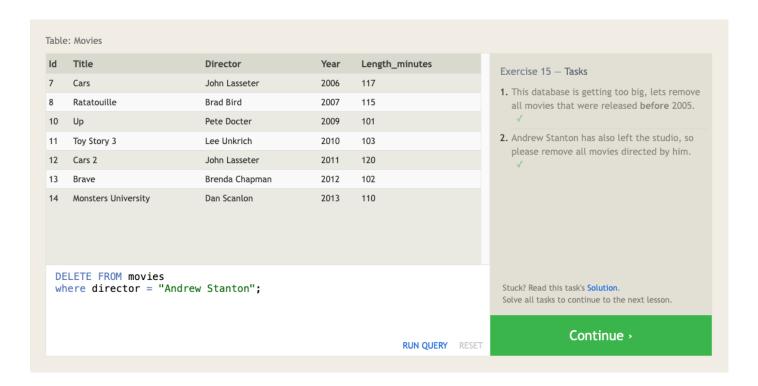
RUN QUERY RESET

Continue >

SQL Lesson 14: Updating rows

| i | Title | Director | Year | Length_minutes | Exercise 14 — Tasks |
|----|---|---------------------|--------|----------------|---|
| | Toy Story | John Lasseter | 1995 | 81 | The director for A Bug's Life is incorrect, it |
| | A Bug's Life | John Lasseter | 1998 | 95 | was actually directed by John Lasseter ✓ |
| | Toy Story 2 | John Lasseter | 1999 | 93 | 2. The year that Toy Story 2 was released is |
| | Monsters, Inc. | Pete Docter | 2001 | 92 | incorrect, it was actually released in 1999 |
| | Finding Nemo | Andrew Stanton | 2003 | 107 | 2 Both the title and discrete for Tou Stone 8 is |
| | The Incredibles | Brad Bird | 2004 | 116 | Both the title and director for Toy Story 8 is incorrect! The title should be "Toy Story 3" |
| | Cars | John Lasseter | 2006 | 117 | and it was directed by Lee Unkrich ✓ |
| | Ratatouille | Brad Bird | 2007 | 115 | |
| | WALL-E | Andrew Stanton | 2008 | 104 | |
| 0 | Up | Pete Docter | 2009 | 101 | |
| SE | DATE movies T title = "Toy Story ERE id = 11; | 3", director = "Lee | Unkric | h" | Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson. Continue > |

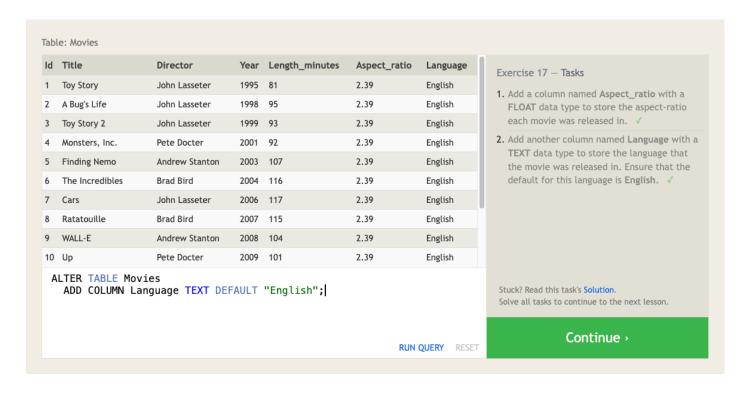
SQL Lesson 15: Deleting rows



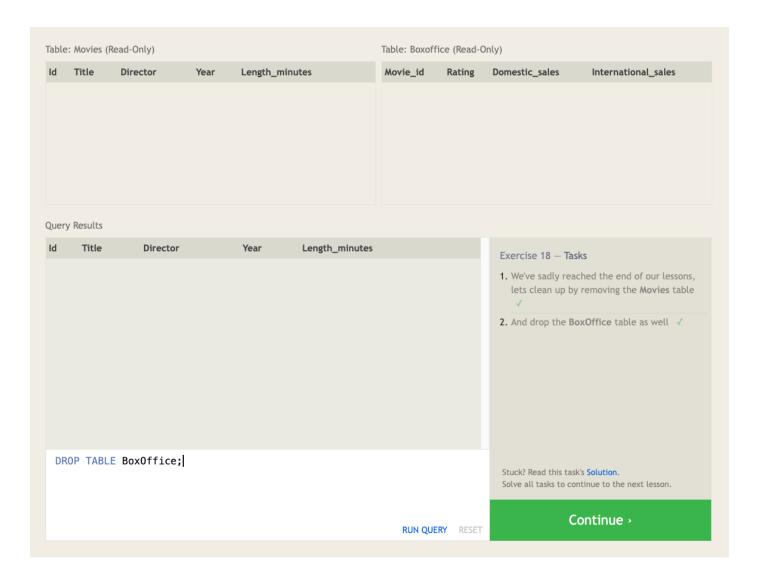
SQL Lesson 16: Creating tables

| Name | Version | Download_count | | Exercise 16 – Tasks |
|------------------|---|----------------|-----------------|---|
| SQLite | 3.9 | 92000000 | | Create a new table named Database with |
| MySQL | 5.5 | 512000000 | | the following columns: |
| Postgres | 9.4 | 38400000 | | Name A string (text) describing the name of the database Version A number (floating point) of the latest version of this database Download_count An integer count of the number of times this database was downloaded This table has no constraints. ✓ |
| Name T Versio | LE Database (EXT, n FLOAT, ad_count INTEGER | | RUN QUERY RESEI | Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson. Continue > |

SQL Lesson 17: Altering tables



SQL Lesson 18: Dropping tables



SQL Lesson X: To infinity and beyond!