sqlbolt.com/lesson/select_queries_introduction

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We will be using a database with data about some of Pixar's classic movies for most of our exercises. This first exercise will only involve the **Movies** table, and the default query below currently shows all the properties of each movie. To continue onto the next lesson, alter the query to find the exact information we need for each task.

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

Exercise 1 — Tasks

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 ✓

```
select * from Movies;
```

RESET

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Continue ›

Table: Movies

Id	Title
1	Toy Story
2	A Bug's Life
3	Toy Story 2
4	Monsters, Inc.
5	Finding Nemo
6	The Incredibles

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There are a few concepts in this lesson, but all are pretty straight-forward to apply. To spice things up, we've gone and scrambled the **Movies** table for you in the exercise to better mimic what kind of data you might see in real life. Try and use the necessary keywords and clauses introduced above in your queries.

Table: Movies

Title
Monsters University
Monsters, Inc.
Ratatouille
The Incredibles
Toy Story

Exercise 4 — Tasks

1. List all directors of Pixar movies (alphabetically), without duplicates ✓
2. List the last four Pixar movies released (ordered from most recent to least) ✓
3. List the **first** five Pixar movies sorted alphabetically ✓
4. List the **next** five Pixar movies sorted alphabetically ✓

```
select title from movies order by title asc limit 5 offset 5;
```

RESET

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Continue ›

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

Query Results

Title	Rating
WALL-E	8.5
Toy Story 3	8.4
Toy Story	8.3
Up	8.3
Finding Nemo	8.2
Monsters, Inc.	8.1
Ratatouille	8
The Incredibles	8
Toy Story 2	7.9
Monsters University	7.4

```
SELECT title,Rating from Movies inner join Boxoffice on
Movies.Id = Boxoffice.Movie_id order by Rating desc;
```

RESET

Exercise 6 — Tasks

1. Find the domestic and international sales for each movie ✓
2. Show the sales numbers for each movie that did better internationally rather than domestically ✓
3. List all the movies by their ratings in descending order ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Continue ›

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Engineer	Malcom S.	1e	1
Artist	Tylar S.	2w	2

Query Results

Building_name	Role
1e	Engineer
1e	Manager
1w	
2e	
2w	Artist
2w	Manager

```
select distinct(Building_name), Role from Buildings
left join
Employees on Buildings.Building_name = Employees.Building;
```

RESET

Exercise 7 — Tasks

1. Find the list of all buildings that have employees ✓
2. Find the list of all buildings and their capacity ✓
3. List all buildings and the distinct employee roles in each building (including empty buildings) ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Continue ›

Artist	Tylar S.	2w	2

Query Results

Building_name
1w
2e

```
SELECT Building_name from Buildings
left join Employees
on Buildings.Building_name = Employees.Building where Name is null;
```

RESET

Exercise 8 — Tasks

1. Find the name and role of all employees who have not been assigned to a building ✓
2. Find the names of the buildings that hold no employees ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Continue ›

6	The Incredibles	Brad Bird	2004	116	6	8	261441092	370001000

Query Results

Title
The Incredibles
WALL-E
Toy Story 3
Cars
A Bug's Life
Brave

```
SELECT Title from Movies inner join Boxoffice on
Movies.Id = Boxoffice.Movie_id where Year%2=0;
```

RESET

Exercise 9 — Tasks

1. List all movies and their combined sales in **millions** of dollars ✓
2. List all movies and their ratings **in percent** ✓
3. List all movies that were released on even number years ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Continue ›

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

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metrics about the teams. Go ahead and give it a shot.

Table: Employees

Building	'Total Number Of Employee Years'
1e	29
2w	36

```
select Building, sum(Years_employed) as ['total number of employee years']
from Employees group by Building;
```

RESET

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 ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Continue ›

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Query Results

Director	Sum(Domestic_sales) + Sum(International_sales)
Andrew Stanton	1458055121
Brad Bird	1255164910
Brenda Chapman	538983207
Dan Scanlon	743559607
John Lasseter	2232208025
Lee Unkrich	1063171911
Pete Docter	1294159000

```
select Director, sum(Domestic_sales) + sum(International_sales)
from Movies inner join Boxoffice on Movies.Id = Boxoffice.Movie_id
group by Director;
```

RESET

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 ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Continue ›

In this exercise, you'll need to create a new table for us to insert some new rows into.

Table: Database

Name	Version	Download_count
SQLite	3.9	92000000
MySQL	5.5	512000000
Postgres	9.4	384000000

Exercise 16 — Tasks

1. Create a new table named `Database` with the following columns:
   – `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. ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

RUN QUERY RESET

Continue ›

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downright easy to irrevocably remove data, so always read your **DELETE** statements twice and execute once.

Exercise

The database needs to be cleaned up a little bit, so try and delete a few rows in the tasks below.

Table: Movies

Id	Title	Director	Year	Length_minutes
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

Incomplete SQL query

```
Delete from movies where Director = 'Andrew Stanton';
```

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.

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Exercise

Our exercises use an implementation that only support adding new columns, so give that a try below.

Table: Movies

Id	Title	Director	Year	Length_minutes	Aspect_ratio	Language
1	Toy Story	John Lasseter	1995	81		'English'
2	A Bug's Life	John Lasseter	1998	95		'English'
3	Toy Story 2	John Lasseter	1999	93		'English'
4	Monsters, Inc.	Pete Docter	2001	92		'English'
5	Finding Nemo	Andrew Stanton	2003	107		'English'
6	The Incredibles	Brad Bird	2004	116		'English'
7	Cars	John Lasseter	2006	117		'English'
8	Ratatouille	Brad Bird	2007	115		'English'
9	WALL-E	Andrew Stanton	2008	104		'English'
10	Up	Pete Docter	2009	101		'English'

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**. ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

In this exercise, you'll need to create a new table for us to insert some new rows into.

Table: Database

Name	Version	Download_count
SQLite	3.9	92000000
MySQL	5.5	512000000
Postgres	9.4	384000000

Exercise 16 — Tasks

1. Create a new table named `Database` with the following columns:
   – `Name` A string (text) describing the name of the database
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   – `Download_count` An integer count of the number of times this database was downloaded

   This table has no constraints. ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

RUN QUERY RESET

Continue ›

Query Results

Id	Title	Director	Year	Length_minutes

RUN QUERY RESET

Exercise 18 — Tasks

1. We've sadly reached the end of our lessons, lets clean up by removing the **Movies** table ✓
2. And drop the **BoxOffice** table as well ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

Continue ›

Next – SQL Lesson X: To infinity and beyond!
Previous – SQL Lesson 17: Altering tables