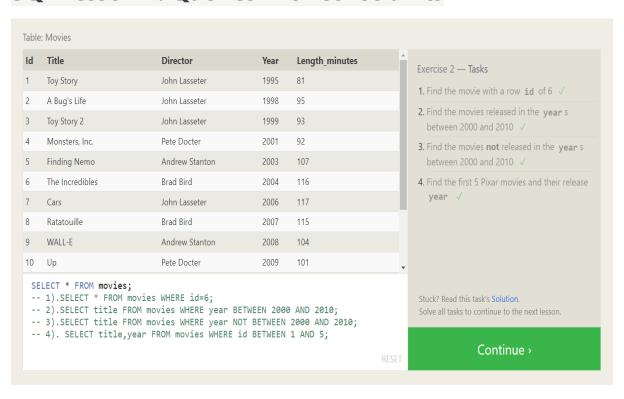
#### Database- Day -1: MySQL Task

### **SQL Lesson 1: SELECT queries 101**

d	Title	Director	Year	Length_minutes	Exercise 1 — Tasks	
	Toy Story	John Lasseter	1995	81	1 Find the title of each film \	
	A Bug's Life	John Lasseter	1998	95		
	Toy Story 2	John Lasseter	1999	93	2. Find the <b>director</b> of each film $\checkmark$	
	Monsters, Inc.	Pete Docter	2001	92	3. Find the title and director of ea	ch film
	Finding Nemo	Andrew Stanton	2003	107	4. Find the title and year of each fil	m √
	The Incredibles	Brad Bird	2004	116	5. Find all the information about each	
	Cars	John Lasseter	2006	117		
	Ratatouille	Brad Bird	2007	115		
	WALL-E	Andrew Stanton	2008	104		
)	Up	Pete Docter	2009	101	•	
  	LECT * FROM movies;  1).SELECT title FROM n  2).SELECT Director FROM  3).SELECT title,Direct  4).SELECT title,year n  5).SELECT * FROM movie	OM movies; tor FROM movies; FROM movies			Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.  Continue >	

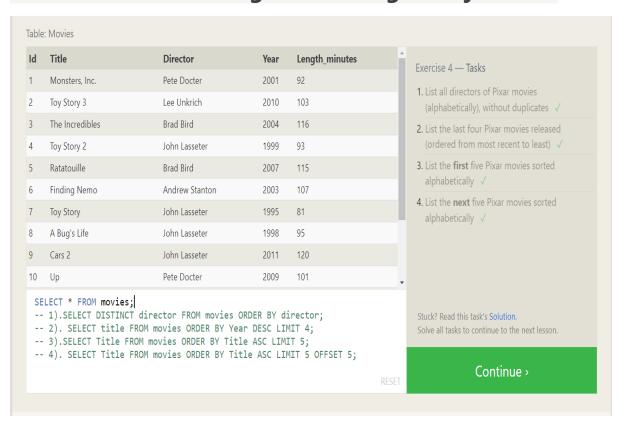
#### **SQL Lesson 2: Queries with constraints**



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

d	Title	Director	Year	Length_minutes	Exercise 3 — Tasks
1	Toy Story	John Lasseter	1995	81	2.00.0000
2	A Bug's Life	John Lasseter	1998	95	1. Find all the Toy Story movies ✓
3	Toy Story 2	John Lasseter	1999	93	2. Find all the movies directed by John Lasseter
1	Monsters, Inc.	Pete Docter	2001	92	3. Find all the movies (and director) not directed
5	Finding Nemo	Andrew Stanton	2003	107	by John Lasseter ✓
5	The Incredibles	Brad Bird	2004	116	<b>4.</b> Find all the WALL-* movies ✓
7	Cars	John Lasseter	2006	117	
3	Ratatouille	Brad Bird	2007	115	
)	WALL-E	Andrew Stanton	2008	104	
10	Up	Pete Docter	2009	101	•
	<ol> <li>SELECT * FROM m</li> <li>SELECT title, di Lasseter");</li> </ol>	novies WHERE title LIK Novies WHERE director rector FROM movies WH	IN("John La ERE directo		Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.  Continue >

### **SQL Lesson 4: Filtering and sorting Query results**



# **SQL Review: Simple SELECT Queries**

City	Country	Population	Latitude	Longitude	Review 1 — Tasks	
Guadalajara	Mexico	1500800	20.659699	-103.349609		
Toronto	Canada	2795060	43.653226	-79.383184	<ol> <li>List all the Canadian cities and their populations √</li> </ol>	
Houston	United States	2195914	29.760427	-95.369803	2. Order all the cities in the United State	s by thei
New York	United States	8405837	40.712784	-74.005941	latitude from north to south ✓	
Philadelphia	United States	1553165	39.952584	-75.165222	3. List all the cities west of Chicago, order	ered fron
Havana	Cuba	2106146	23.05407	-82.345189	west to east ✓	
Mexico City	Mexico	8555500	19.432608	-99.133208	<ol> <li>4. List the two largest cities in Mexico (b population) √</li> </ol>	У
Phoenix	United States	1513367	33.448377	-112.074037	5. List the third and fourth largest cities	(by
Los Angeles	United States	3884307	34.052234	-118.243685	population) in the United States and t	in the United States and their
Ecatepec de Morelos	Mexico	1742000	19.601841	-99.050674	population ✓	
1).SELECT city ="Canada"; 2). SELECT cit States" ORDEF 3). SELECT cit	rth_american_citie y,population FROM  ty FROM north_amer R BY Latitude DESC ty FROM north_amer	north_american ican_cities WH ;	ERE country='	"United e<-87.629798	Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.  Continue >	
1).SELECT city ="Canada"; 2). SELECT cit States" ORDER	y,population FROM ty FROM north_amer R BY Latitude DESC ty FROM north_amer	north_american ican_cities WH ;	ERE country='	"United	Solve all tasks to continue to the next lesson.  Continue >	
1).SELECT city ="Canada"; 2). SELECT cit States" ORDEF 3). SELECT cit ORDER BY Long	y,population FROM ty FROM north_amer R BY Latitude DESC ty FROM north_amer	north_american ican_cities WH ;	ERE country='	"United e<-87.629798	Solve all tasks to continue to the next lesson.  Continue >	
1).SELECT city ="Canada"; 2). SELECT cit States" ORDEF 3). SELECT cit	y,population FROM north_amer ty FROM north_amer R BY Latitude DESC ty FROM north_amer gitude;	north_american ican_cities WH ; ican_cities WH	ERE country='	"United e<-87.629798 RESE	Solve all tasks to continue to the next lesson.  Continue >	
1).SELECT city ="Canada"; 2). SELECT cit States" ORDEF 3). SELECT cit ORDER BY Long	y,population FROM north_amer. R BY Latitude DESC ty FROM north_amer. gitude;	north_american ican_cities WH ; ican_cities WH	ERE country=' ERE Longitude	"United e<-87.629798 RESE -02.343109	Continue >  Continue >	) (by
1).SELECT city ="Canada"; 2). SELECT cit States" ORDEF 3). SELECT cit ORDER BY Long	y,population FROM north_amer R BY Latitude DESC ty FROM north_amer gitude;  Cupa  Mexico	north_american ican_cities WH ; ican_cities WH 2100140 8555500	ERE country=' ERE Longitude 23.00407 19.432608	"United e<-87.629798 RESE -02.343109 -99.133208	Continue >  Continue >  4. List the two largest cities in Mexico population)   5. List the third and fourth largest cities population) in the United States and	o (by
1).SELECT city ="Canada"; 2). SELECT cit States" ORDE: 3). SELECT cit ORDER BY Long	y,population FROM ty FROM north_amer R BY Latitude DESC ty FROM north_amer gitude;  Cuba  Mexico  United States	north_american ican_cities WH ; ican_cities WH 2100140 8555500 1513367	ERE country=' ERE Longitude  23.03407  19.432608  33.448377	"United e<-87.629798 RESE -02.340109 -99.133208 -112.074037	Continue >  Continue >  4. List the two largest cities in Mexico population)   5. List the third and fourth largest cities	) (by

# **SQL Lesson 6: Multi-table queries with JOINs**

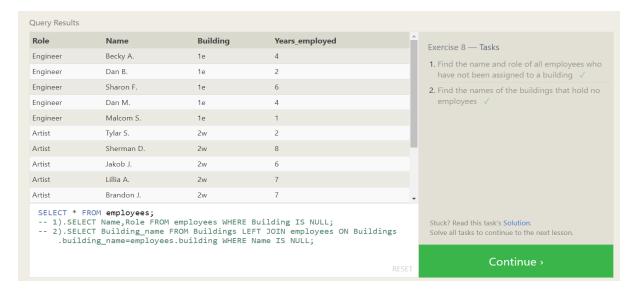
d	Title	Director	Year	Length_minutes	Exercise 6 — Tasks
I	Toy Story	John Lasseter	1995	81	27.07.000 0 140.10
)	A Bug's Life	John Lasseter	1998	95	<ol> <li>Find the domestic and international sales for each movie √</li> </ol>
3	Toy Story 2	John Lasseter	1999	93	2. Show the sales numbers for each movie tha
1	Monsters, Inc.	Pete Docter	2001	92	did better internationally rather than
5	Finding Nemo	Andrew Stanton	2003	107	domestically 🗸
5	The Incredibles	Brad Bird	2004	116	3. List all the movies by their ratings in descending order ✓
7	Cars	John Lasseter	2006	117	descending order V
3	Ratatouille	Brad Bird	2007	115	
)	WALL-E	Andrew Stanton	2008	104	
10	Up	Pete Docter	2009	101	•
	inner join Boxoffic 2). SELECT Domestic join Boxoffice on	omestic_sales, Interna ce on Movies.Id = Boxo c_sales, International Movies.Id = Boxoffice es>Domestic_sales;	ffice.Movie _sales,tit:	e_id; le from Movies inner	Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.  Continue >

ld	Title	Director	Year	Length_minutes	î	Exercise 6 — Tasks
1	Toy Story	John Lasseter	1995	81		
2	A Bug's Life	John Lasseter	1998	95		<ol> <li>Find the domestic and international sales for each movie √</li> </ol>
3	Toy Story 2	John Lasseter	1999	93		2. Show the sales numbers for each movie that
1	Monsters, Inc.	Pete Docter	2001	92		did better internationally rather than
5	Finding Nemo	Andrew Stanton	2003	107		domestically 🗸
5	The Incredibles	Brad Bird	2004	116		3. List all the movies by their ratings in descending order ✓
7	Cars	John Lasseter	2006	117		accentuing chack
3	Ratatouille	Brad Bird	2007	115		
	WALL-E	Andrew Stanton	2008	104		
0	Up	Pete Docter	2009	101	-	
	join Boxoffice on International_sale 3). SELECT title,ra	c_sales, International Movies.Id = Boxoffice es>Domestic_sales; ating from Movies inner d ORDER BY Rating DESC	.Movie_id W	WHERE office on Movies.Id =		Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.  Continue >

### **SQL Lesson 7: OUTER JOINs**

Role	Name	Building	Years_employed	Exercise 7 — T	acks
Engineer	Becky A.	1e	4		
Engineer	Dan B.	1e	2	employees	of all buildings that have √
Engineer	Sharon F.	1e	6	2. Find the list	of all buildings and their capacity
Engineer	Dan M.	1e	4	✓	
Engineer	Malcom S.	1e	1		ngs and the distinct employee
Artist	Tylar S.	2w	2	roles in each buildings)	building (including empty
Artist	Sherman D.	2w	8		
Artist	Jakob J.	2w	6		
Artist	Lillia A.	2w	7		
Artist	Brandon J.	2w	7	•	
1). SEL 2). SEL 3). SEL	ROM employees; ECT DISTINCT (Buil ECT * FROM Buildir ECT distinct(Buildir ees ON Buildings.E	ngs; ding_name), Role	Stuck? Read this Solve all tasks to	task's Solution. continue to the next lesson.  Continue >	

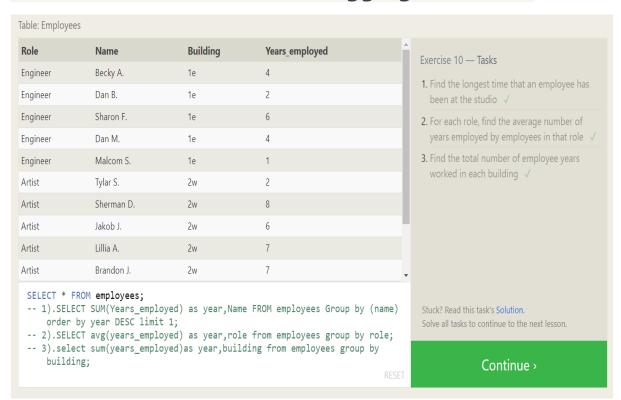
### **SQL Lesson 8: A short note on NULLs**



### **SQL Lesson 9: Queries with expressions**

					A	
ld	Title	Director	Year	Length_minutes		Exercise 9 — Tasks
1	Toy Story	John Lasseter	1995	81		List all movies and their combined sales in
2	A Bug's Life	John Lasseter	1998	95		millions of dollars \( \square\)
3	Toy Story 2	John Lasseter	1999	93		2. List all movies and their ratings in percent $\checkmark$
4	Monsters, Inc.	Pete Docter	2001	92		3. List all movies that were released on even
5	Finding Nemo	Andrew Stanton	2003	107		number years ✓
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	+	
	<pre>from Movies inner 2). SELECT title,(r on Movies.Id = Box</pre>	ROM Movies INNER JOIN	ies.Id = Bo ROM movies	oxoffice.Movie_id; INNER JOIN Boxoffice ON Movies.Id =	ESET	Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.  Continue >

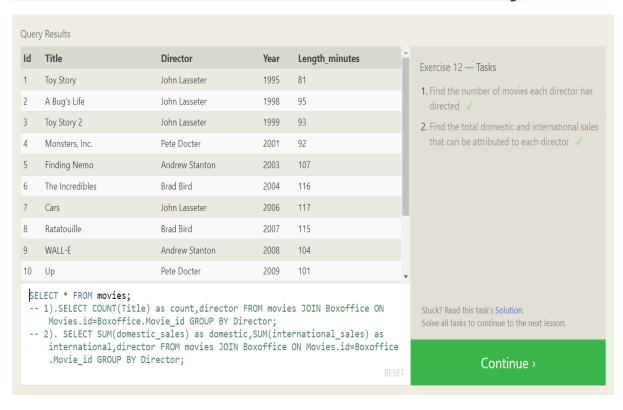
### SQL Lesson 10: Queries with aggregates (Pt. 1)



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

Role	Name	Building	Years_employed	Exercise 11 — Tasks
Engineer	Becky A.	1e	4	2.01.0300 1 1
Engineer	Dan B.	1e	2	1. Find the number of Artists in the studio (without a <b>HAVING</b> clause) ✓
Engineer	Sharon F.	1e	6	2. Find the number of Employees of each role i
Engineer	Dan M.	1e	4	the studio ✓
Engineer	Malcom S.	1e	1	3. Find the total number of years employed by
Artist	Tylar S.	2w	2	Engineers √
Artist	Sherman D.	2w	8	
Artist	Jakob J.	2w	6	
Artist	Lillia A.	2w	7	
Artist	Brandon J.	2w	7	•
1). SE 2). SE 3). SE	FROM employees; LECT COUNT(ROLE) FI LECT COUNT(*),role LECT SUM(years_emp g role="Engineer";	FROM employees		Stuck? Read this task's Solution.  Solve all tasks to continue to the next lesson.  Continue >

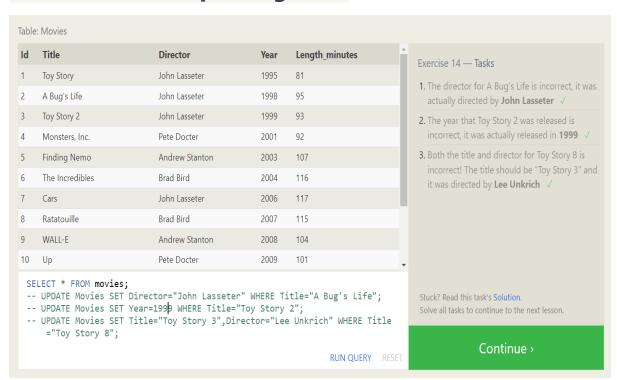
### **SQL Lesson 12: Order of execution of a Query**



### **SQL Lesson 13: Inserting rows**

Query Results				
Movie_id	Rating	Domestic_sales	International_sales	Exercise 13 — Tasks
3	7.9	245852179	239163000	
1	8.3	191796233	170162503	<ol> <li>Add the studio's new production, Toy Story 4 to the list of movies (you can use any director)</li> </ol>
2	7.2	162798565	200600000	√ .
15	8.7	340000000	270000000	2. Toy Story 4 has been released to critical acclaim! It had a rating of <b>8.7</b> , and made <b>340</b>
				million domestically and 270 million internationally. Add the record to the BoxOffice table. ✓
1). INS Lasset 2). INS	er'); SERT INTO Box	ies (Title, director) Office (Movie_id,Rati es) values (15,8.7,34		n Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.
			RUN QUERY	Y RESET Continue >

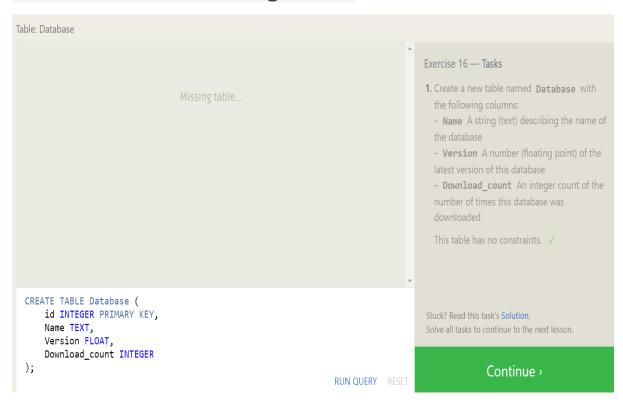
### **SQL Lesson 14: Updating rows**



### **SQL Lesson 15: Deleting rows**

ld	Title	Director	Year	Length_minutes	^	Exercise 15 — Tasks
7	Cars	John Lasseter	2006	117		
8	Ratatouille	Brad Bird	2007	115		<b>1.</b> This database is getting too big, lets remove all movies that were released <b>before</b> 2005.
10	Up	Pete Docter	2009	101		<b>√</b>
11	Toy Story 3	Lee Unkrich	2010	103		2. Andrew Stanton has also left the studio, so
12	Cars 2	John Lasseter	2011	120		please remove all movies directed by him.
13	Brave	Brenda Chapman	2012	102		
14	Monsters University	Dan Scanlon	2013	110		
					٧	
SE	LECT * FROM movies; DELETE FROM Movies WHE DELETE FROM Movies WHE		:anton";			Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.

# **SQL Lesson 16: Creating tables**



### **SQL Lesson 17: Altering tables**

ld	Title	Director	Year	Length_minutes	Aspect_ratio	Language	Exercise 17 — Tasks
1	Toy Story	John Lasseter	1995	81		English	ZAGI GISG TT TABLE
2	A Bug's Life	John Lasseter	1998	95		English	<ol> <li>Add a column named Aspect_ratio with a FLOAT data type to store the aspect-ratio ea</li> </ol>
3	Toy Story 2	John Lasseter	1999	93		English	movie was released in. ✓
4	Monsters, Inc.	Pete Docter	2001	92		English	2. Add another column named Language with
5	Finding Nemo	Andrew Stanton	2003	107		English	TEXT data type to store the language that the movie was released in. Ensure that the defaul
6	The Incredibles	Brad Bird	2004	116		English	for this language is <b>English</b> . √
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	•
-	ELECT * FROM movi - 1). ALTER TABLE - 2). ALTER TABLE	Movies ADD As					Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.
							Continue >

# **SQL Lesson 18: Dropping tables**

