

Hands-on Lab : Basics of SQL SELECT Statement



Estimated time needed: 20 minutes

In this lab, you will learn one of the most commonly used statements of SQL (Structured Query Language), the SELECT statement. The SELECT statement is used to select data from a database.

Objectives

After completing this lab, you will be able to:

- Query a database
- Retrieve data records from one or more tables of a database as resultset according to the criteria you specify

Concepts covered

How does the syntax of a SELECT statement look?

```
1. 1
2. 2
3. 3
4. 4

1. SELECT column1, column2, ...
2. FROM table name
3. WHERE condition
4. ;
```

Copied!

What do the keywords / clauses of a SQL statement shown above do?

- **FROM**: Specifies from which table to get the data. The clause can include optional JOIN subclauses to specify the rules for joining tables.
- [Optional Clause] **WHERE** : Specifies which rows to retrieve.

Why is there a semicolon after the SQL statements?

- Some database systems require a semicolon at the end of each SQL statement for execution. It is a standard way to separate one SQL statement from another which allows more than one SQL statement to be executed in the same call to the server. So, it is good practice to use a semicolon at the end of each SQL statement.

Introduction to Lab Environment

Software Used in this Lab

In this lab, you will use Datasette, an open source tool for exploring and publishing data. You can visit the [Datasette GitHub repository here](#).

Working with Datasette

The **Datasette** tool offers a platform to input and execute SQL queries. By clicking the **Submit query** button, you can execute the SQL query.

The screenshot shows the Datasette web interface. At the top, there's a header with 'home / SanFranciscoFilmLocations'. Below it, the title 'Practice SQL' is displayed. The database name 'SanFranciscoFilmLocations' is shown. A text input field contains the SQL query 'SELECT * FROM FilmLocations;'. Below the input field, a tip says 'Tip: Autocomplete with Ctrl+Enter or Cmd+Enter'. A red box highlights the 'Submit query' button. At the bottom, it says 'Powered by Datasette'.

Database Used in this Lab

The database used in this lab comes from the following dataset source: [Film Locations in San Francisco](#) under a [PDDL- Public Domain Dedication and License](#).

Task A: Exploring the Database

Let us first explore the **SanFranciscoFilmLocations** database using the **Datasette** tool:

1. If the first statement listed below is not already in the Datasette textbox on the right, then copy the code below by clicking on the little copy button on the bottom right of the codeblock below and then paste it into the textbox of the Datasette tool using either **Ctrl+V** or right-click in the text box and choose **Paste**.

```
1. 1
2. 1. SELECT * FROM FilmLocations;
```

Copied!

This is a smaller version of the Datasette interface shown earlier. It displays the same SQL query 'SELECT * FROM FilmLocations;' in the input field, with the 'Submit query' button highlighted by a blue box.

2. Click **Submit Query**.
3. Now you can scroll down the table and explore all the columns and rows of the **FilmLocations** table to get an overall idea of the table contents.

ID	YEAR	MOVIE TITLE	RELEASE YEAR	LOCATION	DIRECTOR	WRITER	ACTOR 1	ACTOR 2	ACTOR 3
1	1950	The Apartment	1950	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
2	1951	The Apartment	1951	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
3	1952	The Apartment	1952	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
4	1953	The Apartment	1953	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
5	1954	The Apartment	1954	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
6	1955	The Apartment	1955	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
7	1956	The Apartment	1956	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
8	1957	The Apartment	1957	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
9	1958	The Apartment	1958	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
10	1959	The Apartment	1959	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
11	1960	The Apartment	1960	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
12	1961	The Apartment	1961	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
13	1962	The Apartment	1962	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
14	1963	The Apartment	1963	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
15	1964	The Apartment	1964	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
16	1965	The Apartment	1965	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
17	1966	The Apartment	1966	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
18	1967	The Apartment	1967	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
19	1968	The Apartment	1968	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
20	1969	The Apartment	1969	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
21	1970	The Apartment	1970	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
22	1971	The Apartment	1971	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
23	1972	The Apartment	1972	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
24	1973	The Apartment	1973	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
25	1974	The Apartment	1974	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
26	1975	The Apartment	1975	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
27	1976	The Apartment	1976	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
28	1977	The Apartment	1977	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
29	1978	The Apartment	1978	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
30	1979	The Apartment	1979	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
31	1980	The Apartment	1980	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
32	1981	The Apartment	1981	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
33	1982	The Apartment	1982	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
34	1983	The Apartment	1983	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
35	1984	The Apartment	1984	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
36	1985	The Apartment	1985	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
37	1986	The Apartment	1986	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
38	1987	The Apartment	1987	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
39	1988	The Apartment	1988	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
40	1989	The Apartment	1989	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
41	1990	The Apartment	1990	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
42	1991	The Apartment	1991	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
43	1992	The Apartment	1992	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
44	1993	The Apartment	1993	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
45	1994	The Apartment	1994	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
46	1995	The Apartment	1995	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
47	1996	The Apartment	1996	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
48	1997	The Apartment	1997	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
49	1998	The Apartment	1998	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
50	1999	The Apartment	1999	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
51	2000	The Apartment	2000	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
52	2001	The Apartment	2001	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
53	2002	The Apartment	2002	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
54	2003	The Apartment	2003	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
55	2004	The Apartment	2004	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
56	2005	The Apartment	2005	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
57	2006	The Apartment	2006	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
58	2007	The Apartment	2007	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
59	2008	The Apartment	2008	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
60	2009	The Apartment	2009	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
61	2010	The Apartment	2010	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
62	2011	The Apartment	2011	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
63	2012	The Apartment	2012	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
64	2013	The Apartment	2013	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
65	2014	The Apartment	2014	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
66	2015	The Apartment	2015	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
67	2016	The Apartment	2016	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
68	2017	The Apartment	2017	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
69	2018	The Apartment	2018	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
70	2019	The Apartment	2019	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
71	2020	The Apartment	2020	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
72	2021	The Apartment	2021	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
73	2022	The Apartment	2022	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
74	2023	The Apartment	2023	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
75	2024	The Apartment	2024	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
76	2025	The Apartment	2025	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
77	2026	The Apartment	2026	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
78	2027	The Apartment	2027	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
79	2028	The Apartment	2028	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
80	2029	The Apartment	2029	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
81	2030	The Apartment	2030	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
82	2031	The Apartment	2031	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
83	2032	The Apartment	2032	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
84	2033	The Apartment	2033	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
85	2034	The Apartment	2034	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
86	2035	The Apartment	2035	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
87	2036	The Apartment	2036	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
88	2037	The Apartment	2037	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
89	2038	The Apartment	2038	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
90	2039	The Apartment	2039	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
91	2040	The Apartment	2040	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
92	2041	The Apartment	2041	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
93	2042	The Apartment	2042	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
94	2043	The Apartment	2043	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
95	2044	The Apartment	2044	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
96	2045	The Apartment	2045	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
97	2046	The Apartment	2046	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
98	2047	The Apartment	2047	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
99	2048	The Apartment	2048	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
100	2049	The Apartment	2049	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
101	2050	The Apartment	2050	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
102	2051	The Apartment	2051	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
103	2052	The Apartment	2052	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
104	2053	The Apartment	2053	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
105	2054	The Apartment	2054	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
106	2055	The Apartment	2055	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
107	2056	The Apartment	2056	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
108	2057	The Apartment	2057	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
109	2058	The Apartment	2058	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
110	2059	The Apartment	2059	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
111	2060	The Apartment	2060	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
112	2061	The Apartment	2061	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
113	2062	The Apartment	2062	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
114	2063	The Apartment	2063	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
115	2064	The Apartment	2064	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
116	2065	The Apartment	2065	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
117	2066	The Apartment	2066	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
118	2067	The Apartment	2067	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
119	2068	The Apartment	2068	San Francisco	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson	John H. Johnson
120	2								

Copied!

Task B: Example exercises on SELECT statement

Now let us go through some examples of **SELECT** queries:

1. In this example, suppose we want to retrieve details of all the films from the **FilmLocations** table. The details of each film record should contain all the film columns.

1. Problem:

Retrieve all records with all columns from the **FilmLocations** table.

2. Solution:

```
1. 1
1. SELECT * FROM FilmLocations;
```

Copied!

3. Copy the solution code above by clicking on the little copy button on the bottom right of the codeblock below and paste it to the textbox of the Datasette tool. Then click **Submit query**.

home / Practice SQL | SanFranciscoFinLocations

Practice SQL

Databases: SanFranciscoFinLocations

```
SELECT * FROM FlightsHistory;
```

Tip: Autocomplete with Ctrl+Enter or Cmd+Enter

Submit query

4. Your output resultset should match like below:

Database: `test1` (selected from the database)

Query: `SELECT * FROM test1`

Tip: Autocomplete with Ctrl-Enter or Cmd-Enter

Results

[illegible]

2. In this example, now we want to retrieve selective details of all the film records. Let us retrieve the names of all the films along with director names and writer names.

1. Problem:

Retrieve the names of all films with director names and writer names

2. Solution:

```
1. 1
1. SELECT Title, Director, Writer FROM FilmLocations;
```

Copied!

3. Copy the solution code above by clicking on the little copy button on the bottom right of the codeblock below and paste it to the textbox of the Datasette tool. Then click **Submit query**.

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Practice SQL

Database: SanFranciscoFinLocations

```
SELECT Title, Department, Salary FROM Employees;
```

Tip: Autocomplete with Ctrl+Enter or Cmd+Enter

Submit query

4. Your output resultset should match like below:

Practice SQL

Database: `SearchEnginesCollection`

`SELECT Title, Author, Keyword FROM T1 WHERE Keyword = 'Search Engines'`

`FROM SearchEngines WITH CLOB-Option ON Database`

[Query Editor](#)

Results

`10 columns (top column only)`

`SELECT Title, Director, Year FROM T1 WHERE FilmID = 1`

Title	Director	Year
100	James Cameron	1984
101	James Cameron	1984
102	James Cameron	1984
103	James Cameron	1984
104	James Cameron	1984
105	James Cameron	1984
106	James Cameron	1984
107	James Cameron	1984
108	James Cameron	1984
109	James Cameron	1984
110	James Cameron	1984
111	James Cameron	1984
112	James Cameron	1984
113	James Cameron	1984
114	James Cameron	1984
115	James Cameron	1984
116	James Cameron	1984
117	James Cameron	1984
118	James Cameron	1984
119	James Cameron	1984
120	James Cameron	1984
121	James Cameron	1984
122	James Cameron	1984
123	James Cameron	1984
124	James Cameron	1984
125	James Cameron	1984
126	James Cameron	1984
127	James Cameron	1984
128	James Cameron	1984
129	James Cameron	1984
130	James Cameron	1984
131	James Cameron	1984
132	James Cameron	1984
133	James Cameron	1984
134	James Cameron	1984
135	James Cameron	1984
136	James Cameron	1984
137	James Cameron	1984
138	James Cameron	1984
139	James Cameron	1984
140	James Cameron	1984
141	James Cameron	1984
142	James Cameron	1984
143	James Cameron	1984
144	James Cameron	1984
145	James Cameron	1984
146	James Cameron	1984
147	James Cameron	1984
148	James Cameron	1984
149	James Cameron	1984
150	James Cameron	1984
151	James Cameron	1984
152	James Cameron	1984
153	James Cameron	1984
154	James Cameron	1984
155	James Cameron	1984
156	James Cameron	1984
157	James Cameron	1984
158	James Cameron	1984
159	James Cameron	1984
160	James Cameron	1984
161	James Cameron	1984
162	James Cameron	1984
163	James Cameron	1984
164	James Cameron	1984
165	James Cameron	1984
166	James Cameron	1984
167	James Cameron	1984
168	James Cameron	1984
169	James Cameron	1984
170	James Cameron	1984
171	James Cameron	1984
172	James Cameron	1984
173	James Cameron	1984
174	James Cameron	1984
175	James Cameron	1984
176	James Cameron	1984
177	James Cameron	1984
178	James Cameron	1984
179	James Cameron	1984
180	James Cameron	1984
181	James Cameron	1984
182	James Cameron	1984
183	James Cameron	1984
184	James Cameron	1984
185	James Cameron	1984
186	James Cameron	1984
187	James Cameron	1984
188	James Cameron	1984
189	James Cameron	1984
190	James Cameron	1984
191	James Cameron	1984
192	James Cameron	1984
193	James Cameron	1984
194	James Cameron	1984
195	James Cameron	1984
196	James Cameron	1984
197	James Cameron	1984
198	James Cameron	1984
199	James Cameron	1984
200	James Cameron	1984

3. In this example, we want to retrieve film names along with filming locations and release years. But we also want to restrict the output resultset so that we can retrieve only the film records released in 2001 and onwards (release years after 2001 including 2001).

1. Problem:

Retrieve the names of all films released in the 21st century and onwards (release years after 2001 including 2001), along with filming locations and release years.

2. Solution:

```
1. 1
1. SELECT Title, ReleaseYear, Locations FROM FilmLocations WHERE ReleaseYear>=2001;
```

Copied!

3. Copy the solution code above by clicking on the little copy button on the bottom right of the codeblock below and paste it to the textbox of the Datasette tool. Then click **Submit query**.

Home / Practice SQL / SanFrancisco@H@Location

Practice SQL

Database: SanFrancisco@H@Location

```
SELECT Title, ReleaseYear, Location FROM FilmLocations WHERE ReleaseYear=2011;
```

Tip: Autocomplete with Ctrl+Enter or Cmd+Enter

Submit query

4. Your output resultset should match like below:

[illegible]

Task C: Practice exercises on SELECT statement

Finally, let us practice creating and running some SELECT queries.

1. Problem:

Retrieve the fun facts and filming locations of all films.

- ▼ [Click here for Hint](#)
Follow example 2 of SELECT where records have been retrieved containing details of some particular columns. Like,

```
1. 1
1. SELECT [column1],[column2] FROM table_name;
```

Copied!

- ▼ [Click here for Solution](#)

```
1. 1
2. SELECT Locations, FunFacts FROM FilmLocations;
```

[Copied!](#)

▼ [Click here for Output](#)

Practice SQL

Database: SanFranciscoFilmLocations

```
1 SELECT Locations, FunFacts FROM FilmLocations;
```

Tip: Autocomplete with Ctrl+Enter or Cmd+Enter

Submit query

Results

All commands ran successfully

Support

SELECT Locations, FunFacts FROM FilmLocations

Locations	FunFacts
Epic Roasthouse (399 Embarcadero)	
Mason & California Streets (Nob Hill)	
Justin Herman Plaza	
200 block Market Street	
City Hall	
Polk & Larkin Streets	
Randall Museum	
555 Market St.	
Embarcadero	Embarcadero Ferryway, which was featured in the film

2. Problem:

Retrieve the names of all films released in the 20th century and before (release years before 2000 including 2000) that, along with filming locations and release years.

▼ [Click here for Hint](#)

Follow example 3 of SELECT where we restricted the output resultset so that we can retrieve only the film records with certain release years. Use WHERE clause comparison operator <= which means "Less than or equal to".

```
1. 1
2. SELECT [column1],[column2],[column3] FROM table_name WHERE [specifiedcolumn] <=2000;
```

[Copied!](#)

▼ [Click here for Solution](#)

```
1. 1
2. SELECT Title, ReleaseYear, Locations FROM FilmLocations WHERE ReleaseYear<=2000;
```

[Copied!](#)

▼ [Click here for Output](#)

3. Problem:

Retrieve the names, production company names, filming locations, and release years of the films which are not written by James Cameron.

▼ [Click here for Hint](#)

Use WHERE clause comparison operator <> which means "Not equal to".

```
1. 1
2. SELECT [column1],[column2],[column3],[column4] FROM table_name WHERE [specifiedcolumnname] <>"James Cameron";
```

[Copied!](#)

▼ [Click here for Solution](#)

```
1. 1
2. SELECT Title, ProductionCompany, Locations, ReleaseYear FROM FilmLocations WHERE Writer<>"James Cameron";
```

[Copied!](#)

▼ [Click here for Output](#)

Practice SQL

Database: SanFranciscoFilmLocations

```
1 SELECT Title, ProductionCompany, Locations, ReleaseYear FROM FilmLocations WHERE Writer<>"James Cameron";
```

Tip: Autocomplete with Ctrl+Enter or Cmd+Enter

Submit query

Results

Support

All commands ran successfully

```
SELECT Title, ProductionCompany, Locations, ReleaseYear FROM FilmLocations WHERE Writer<>"James Cameron"
```

Title	ProductionCompany	Locations	ReleaseYear
180	SPI Cinemas	Epic Roasthouse (399 Embarcadero)	2011
180	SPI Cinemas	Mason & California Streets (Nob Hill)	2011
180	SPI Cinemas	Justin Herman Plaza	2011
180	SPI Cinemas	200 block Market Street	2011
180	SPI Cinemas	City Hall	2011
180	SPI Cinemas	Polk & Larkin Streets	2011
180	SPI Cinemas	Randall Museum	2011

Project Completion

Thank you for completing this lab where you learnt to query a database, and retrieve data records according to the criteria specified!

Author(s)

• [Sandip Saha Joy](#)

Changelog

Date	Version	Changed by	Change Description
2023-07-11	1.6	Lakshmi Holla	Updated labs
2023-06-02	1.5	Eric Hao	Fixed Page Styles
2023-05-10	1.4	Eric Hao & Vladislav Boyko	Updated Page Frames
2023-05-04	1.3	Benny Li	Republished
2022-07-27	1.2	Lakshmi Holla	Updated html tag
2020-11-23	1.1	Steve Ryan	ID Review
2020-11-20	1.0	Sandip Saha Joy	Initial version created

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