



# Using SQL: The Basics for the Getty Vocabularies Relational Tables data model

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# Using SQL to access the Getty Vocabulary data in relational tables

- SQL stands for ‘Structured Query Language’
- SQL lets you access and manipulate databases
- For the Getty Vocabularies, SQL allows you to query Relational Tables database that contains the Vocabulary data in VCS
- SQL is a standard of the American National Standards Institute (ANSI) and of the International Organization for Standardization (ISO)
- Read about SQL here: [https://www.w3schools.com/sql/sql\\_intro.asp](https://www.w3schools.com/sql/sql_intro.asp)
- See also OpenRefine :  
<https://www.getty.edu/research/tools/vocabularies/obtain/openrefine.html>
- See also SPARQL end point :  
[https://vocab.getty.edu/queries#Finding\\_Subjects](https://vocab.getty.edu/queries#Finding_Subjects)

- Boolean operators **and, or, not**
- Plus the use of parentheses and other punctuation to place phrases in logical order

baumann and (lydia or anna or daniel)

bauman% and (lydia or ann% or daniel)

(bauman% and (lydia or ann% or daniel))  
or (bauer and (carl or karl or johan%))

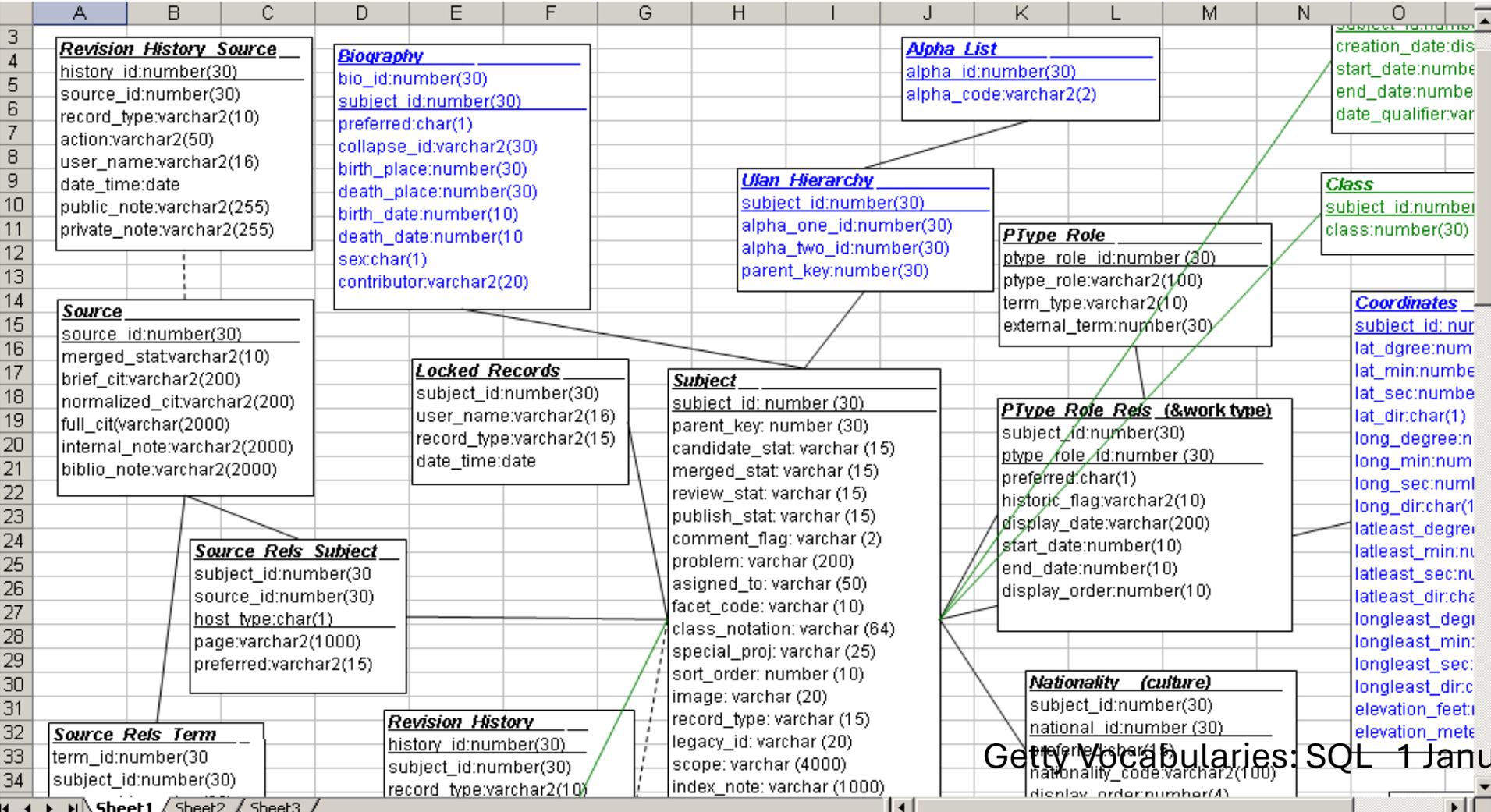
## Example in ULAN on Term table

Select \* from Term where Name like

(bowman or bauman%) and (lydia or anna)

-  [Bauman, Lydia](#)  
(British painter of Polish birth, born 1955) [500155374] (Persons, Artists)  
**Lydia Bauman**
-  [Baumann, Elisabeth](#)  
(Danish painter and writer, 1819-1881) [500009695] (Persons, Artists)  
**Anna Maria Elisabeth Jerichau Baumann**  
**Baumann, Anna Maria Elisabeth Jerichau**  
**Elisabeth Maria Anna Jerichau-Baumann**  
**Jerichau-Baumann, Anna Maria Elisabeth**  
**Jerichau-Baumann, Elisabeth Maria Anna**

- To create SQL queries, use Relational Tables diagram to understand what are relationships btwn tables
- Each field is a column in a table (here horizontal); (each instance is a row)
- The tables are linked (often using subject\_id)
- Easiest queries are done within a single table, but you may join tables for more complex queries



column

table

values in rows of columns equal

Select xxxx

From xxxx

Where xxxx

The screenshot shows a software interface for executing SQL queries. On the left, there are two buttons: "Get SQL" and "Save SQL". The main area contains a text box with the following SQL query:

```
Select distinct subject_id from revision_history  
where user_name like 'PHARPRING'  
and date_time > '8 Apr 2023'
```

Below the query box is an "Output Filename" field containing the path: C:\Program Files\VCS46\aat\temp.TXT. Underneath is a table titled "Output Data:" with a single column "Subject ID". The table contains the following values:

Subject ID
300003985
300008057
300009966
300012855
300022755
300037173
300037181

At the bottom right of the interface are two buttons: "Execute SQL" and "Cancel".

```
Select distinct subject_ID  
from language_rels  
where language_code like '70431'  
or language_code like '70432'
```

*What does this  
retrieve?*

```
Select distinct subject_ID  
from biography  
where preferred like 'P'  
and biography like '%&%'
```

*What does this  
retrieve?*

- If you need to search on two or more columns in different tables, you need a “join”

```
select count(distinct term.term_id)
from term,subject,language_rels
where language_rels.language_code not like '70051'
and subject.candidate_stat like 'N'
and term.subject_id=subject.subject_id
and term.subject_id=language_rels.subject_id
```

*need table and  
column name*

*join the three  
tables using  
subject\_id*

Execute SQL

Cancel