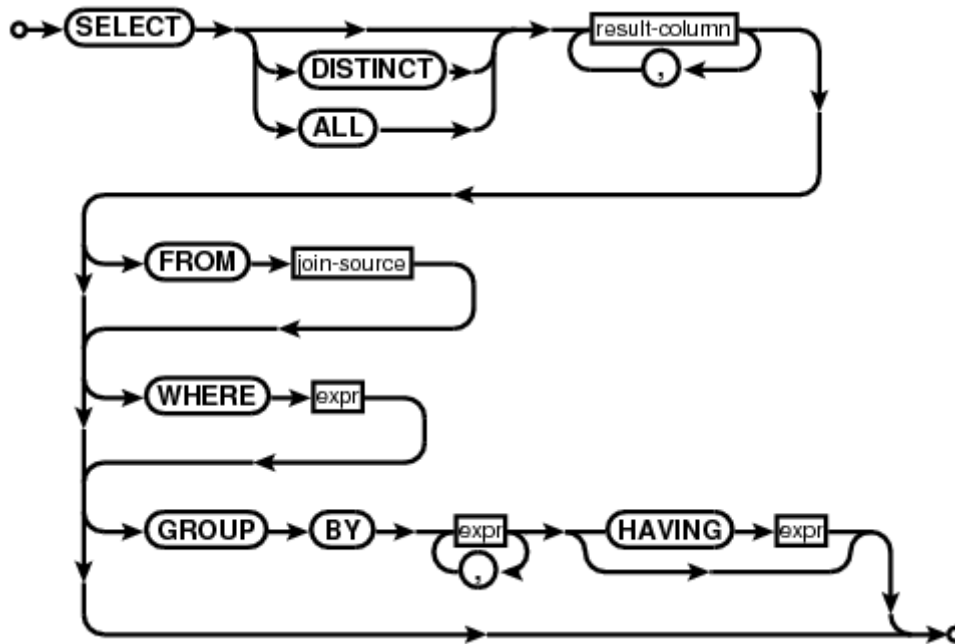


Beim Bilder-Google nach „sqlite query language select“ kann man folgendes Schema entdecken:



Mögliche Grammatik für dieses Diagramm:

$S \rightarrow \text{„SELECT“ } A \mid \text{„SELECT“ } B \mid \text{„SELECT“ } C$

$A \rightarrow \text{„DISTINCT“ } C$

$B \rightarrow \text{„ALL“ } C$

$C \rightarrow \text{„result-column“ } D \mid \text{result-column“ } E$

$D \rightarrow \text{„“ } C$

$E \rightarrow \text{„FROM“ } F \mid G$

$F \rightarrow \text{„join-source“ } G$

$G \rightarrow \text{„WHERE“ } H \mid I$

$H \rightarrow \text{„expr“ } I$

$I \rightarrow \text{„GROUP“ } J \mid \text{„“}$

$J \rightarrow \text{„BY“ } K$

$K \rightarrow \text{„expr“ } L \mid \text{„expr“ } M$

$L \rightarrow \text{„“ } K$

$M \rightarrow \text{„HAVING“ } N \mid \text{„“}$

$N \rightarrow \text{„expr“ } O$

$O \rightarrow \text{„“}$

Es sieht also so aus, als ob select-Anweisungen regulär sind. Aber:

<https://stackoverflow.com/questions/26595394/what-kind-of-language-is-sql>

SQL is not a regular language. The short explanation is that each select query looks like

SELECT x FROM y WHERE z

and y can be another select query itself, so it cannot be simulated with finite-state machine. As

mentioned before, there are some CFGs for SQL standarts in [Backus–Naur Form](#), thereby SQL is **nonregular context free** language.