

# Sample HW description

📅 Date	@August 31, 2021
🏷️ Tags	

**Currently Q1-Q3 works to translate from relational algebra to sql**

## Relation Algebra:

```
Q1:
$\project_{\{BranName\}}(\_s_{\{State='Indiana' \}} (LibraryBranch) )$

Q2:
$ LibrBran \leftarrow \_s_{\{State='Indiana' \}} (LibraryBranch) $
$ LibrBookCopi \leftarrow LibrBran \theta\_join_{\{LibrBran.BranId =BookCopies.BranId \}} BookCopies $
$ LibrBook \leftarrow LibrBookCopi \theta\_join_{\{LibrBookCopi.BookId =Book.BookId \}} Book $
$ Result \leftarrow \project_{\{Title\}} (LibrBook)$

Q3:
$ WithLoans \leftarrow \project_{\{MembId\}} (BookLoans)$
$ AllMemb \leftarrow \project_{\{MembId\}} (Member) $
$ NoLoans \leftarrow AllMemb - WithLoans $
$ Result \leftarrow \project_{\{MembName\}} (NoLoans \Join Member) $
```

By uncomment in [RToSql.py](#) and run it, you can change from Relational algebra to sql

Folder in Github also includes HwQ1-Q3.tex, which includes the Question 1 to Question 3 and Hw-Full.tex, which includes all questions.

Github link:<https://github.com/CalendulaED/RaptGuideLine/tree/main/RToSqlExample>