



Follett

Educational Conference

SQL Queries

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Agenda

- Relational database overview
- SQL tools
- Basic SQL structure
- Basic SQL key words
- Creating your first SQL query
- Limiting results
- Joining tables
- Putting it all together
- Additional sample queries

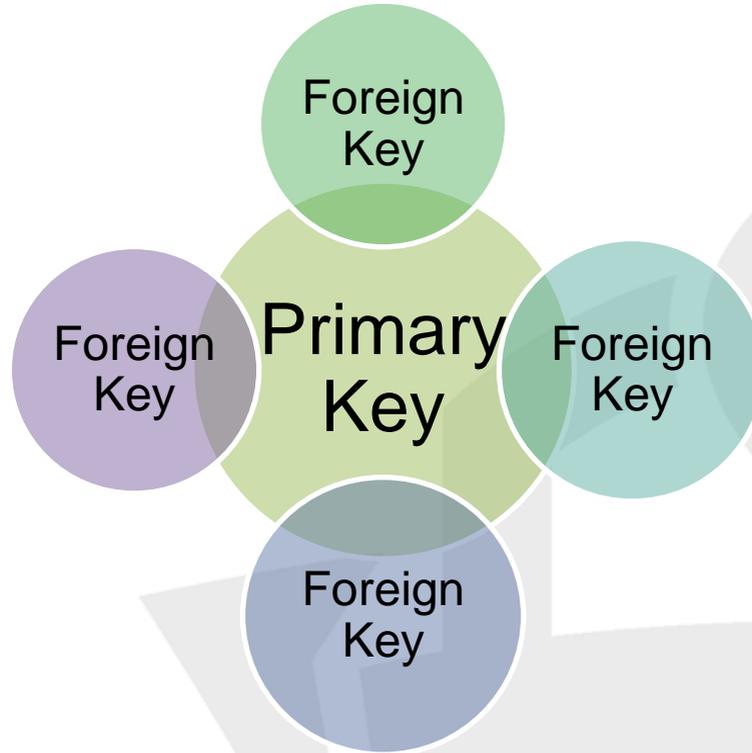


Relational databases 1.1

- Who knows what a relational database is?
 - A database structured to recognize relations among stored items of information
- Tables/Rows/Columns (Excel)
- Primary Keys and Foreign Keys
- Relationships - 1:1, 1:M, M:1, M:M

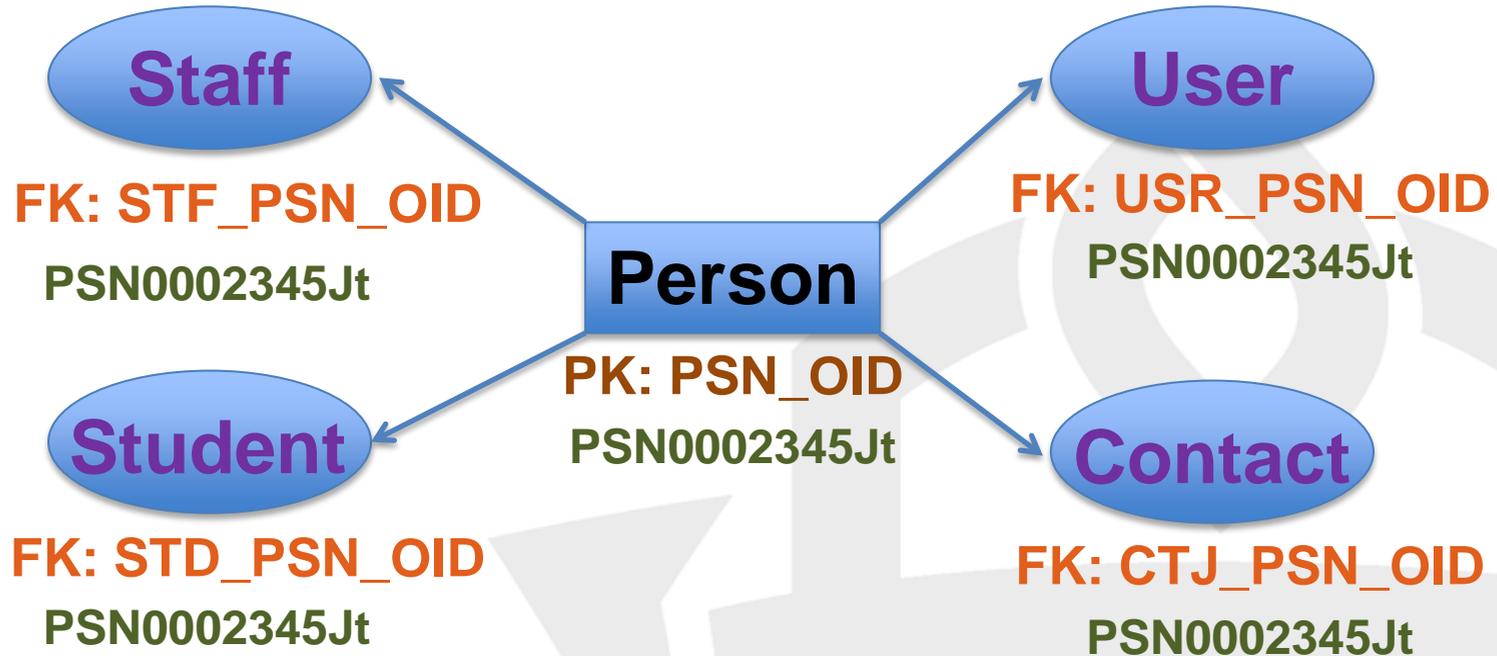


Relational databases 1.2





Relational databases 1.3





SQL tools

- Notepad++

```
1 SELECT STD_YOG as yog, UPPER(PSN_GENDER_CODE) as gender, COUNT(STD_OID) as subtotal
2 FROM STUDENT, PERSON
3 WHERE STD_PSN_OID = PSN_OID
4 AND STD_ENROLLMENT_STATUS = 'Active'
5 AND STD_SKL_OID = 'skl0000001001'
6 GROUP BY STD_YOG, PSN_GENDER_CODE
7 ORDER BY STD_YOG, PSN_GENDER_CODE
```

- Aspen!



Basic SQL structure

SELECT * FROM STUDENT
WHERE STD_OID = 'STD0011223tj0'

Table

Field

Operator

Value

1. Select
statement

2. From
statement

3. Where
clause



Basic SQL key words

Commands

- WHERE
- AND
- OR
- GROUP BY
- ORDER BY

Operators

- IN
- NOT IN
- Math Operators
 - =, <, >, <>



Creating your first query

```
SELECT * FROM STUDENT
```

```
WHERE STD_YOG = '2017'
```



Limiting results

```
SELECT * FROM STUDENT
```

```
WHERE STD_YOG = '2017'
```

```
AND ( STD_ENROLLMENT_STATUS = 'Active'
```

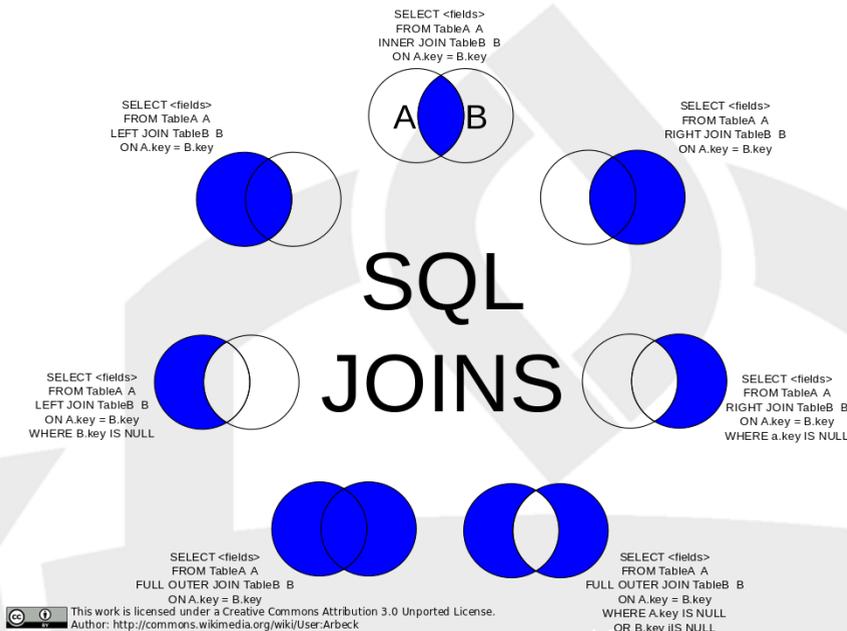
```
OR   STD_ENROLLMENT_STATUS = 'PreReg' )
```



Joining tables 1.1

Types of Joins

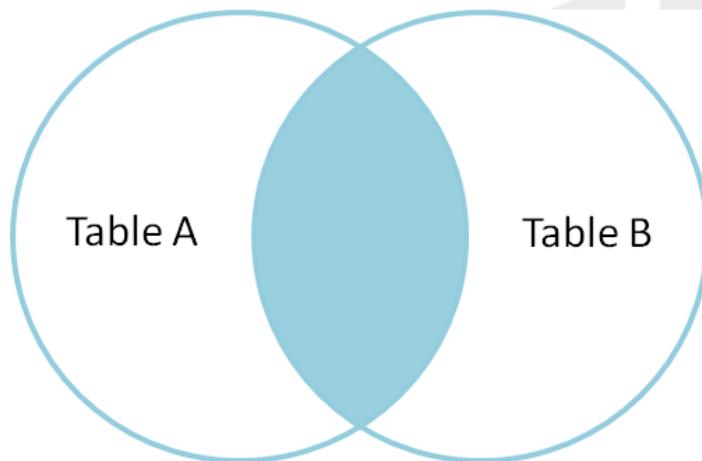
- LEFT JOIN
- RIGHT JOIN
- INNER JOIN
- OUTER JOIN
 - FULL
 - LEFT/RIGHT





Joining tables 1.2

INNER JOIN: A join type which returns results only where the values match between the tables being joined





Putting it all together

SELECT * FROM STUDENT

INNER JOIN PERSON

ON STD_PSN_OID = PSN_OID

WHERE STD_YOG = 2017 IN ('2017','2018')

AND(STD_ENROLLMENT_STATUS = 'Active'

OR STD_ENROLLMENT_STATUS = 'PreReg')

~~**AND PSN_GENDER = 'M'**~~

AND PSN_GENDER_CODE = 'M'



Putting it all together–Clean

SELECT * FROM STUDENT

**INNER JOIN PERSON
ON STD_PSN_OID = PSN_OID
WHERE STD_YOG IN ('2017','2018')
AND(STD_ENROLLMENT_STATUS = 'Active'
OR STD_ENROLLMENT_STATUS = 'PreReg')
AND PSN_GENDER_CODE = 'M'**



Additional sample queries 1.1

```
SELECT * FROM STUDENT_TRANSCRIPT
```

```
WHERE (TRN_FIELDA_001 <> '100'  
AND TRN_FIELDA_001 <= '69.5' )  
OR (TRN_FIELDA_002 <> '100'  
AND TRN_FIELDA_002 <= '69.5' )  
OR (TRN_FIELDA_003 <> '100'  
AND TRN_FIELDA_003 <= '69.5' )
```



Additional sample queries 1.2

SELECT * FROM STUDENT

WHERE STD_OID NOT IN

**(SELECT HSC_STD_OID FROM HEALTH_SCREENING
INNER JOIN DATA_DICTIONARY_EXTENDED**

ON (HSC_DDX_OID = DDX_OID)

WHERE DDX_NAME = 'Hearing')



Additional sample queries 1.3

```
SELECT * FROM STUDENT
```

```
WHERE STD_OID NOT IN  
(SELECT ATT_STD_OID  
FROM STUDENT_ATTENDANCE  
WHERE ATT_ABSENT_IND = '1'  
AND ATT_DATE = '{prompt:attDate:::Date}')
```



Additional sample queries 1.4

Available for download as part of the session materials

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<https://www.surveymonkey.com/r/FEC2017>



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Thank you!

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