

# La jointure dans le langage SQL

## RESSOURCE 1 COMBINÉE

### Titre :

Unit 10 : The Join Statement

### Auteurs et licences :

- Adrienne Watt & Nelson Eng : Licence CC BY 4.0
- James F. Courtney & David B. Paradise : Licence CC BY 3.0

### Date de publication :

Mercredi 20 Juillet 2016, 11:59

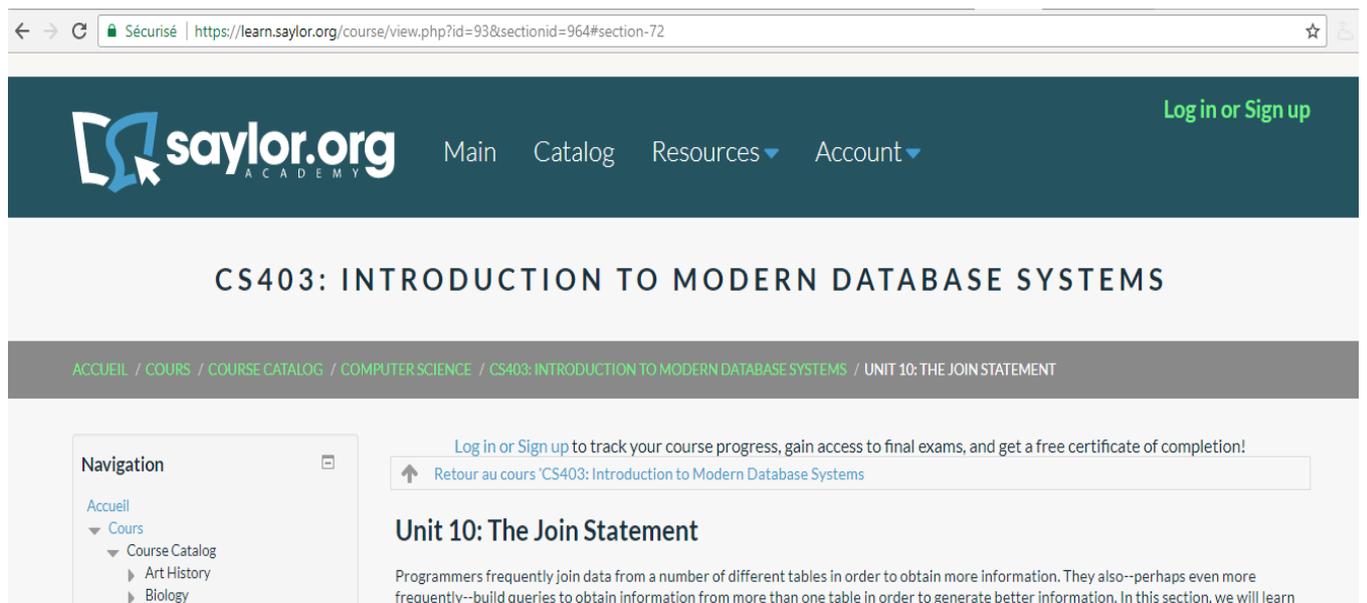
### Date de consultation :

Vendredi 27 octobre 2017

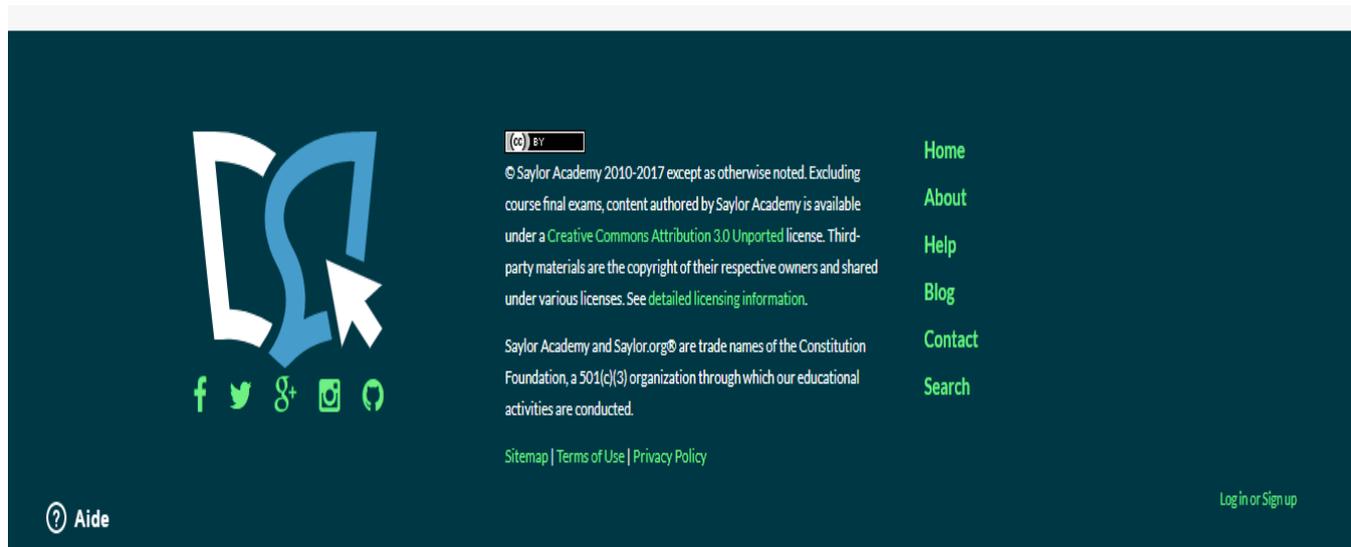
### URL :

<https://learn.saylor.org/course/view.php?id=93&sectionid=964#section-72>

### Captures d'écran :



The screenshot shows a web browser window displaying the Saylor Academy website. The address bar shows the URL: <https://learn.saylor.org/course/view.php?id=93&sectionid=964#section-72>. The website header includes the Saylor Academy logo and navigation links: Main, Catalog, Resources, and Account. A "Log in or Sign up" link is visible in the top right corner. The main content area features the course title "CS403: INTRODUCTION TO MODERN DATABASE SYSTEMS" and a breadcrumb trail: ACCUEIL / COURS / COURSE CATALOG / COMPUTER SCIENCE / CS403: INTRODUCTION TO MODERN DATABASE SYSTEMS / UNIT 10: THE JOIN STATEMENT. A navigation sidebar on the left lists "Accueil" and "Cours" with sub-items "Course Catalog", "Art History", and "Biology". The main content area includes a "Log in or Sign up" prompt, a "Retour au cours 'CS403: Introduction to Modern Database Systems'" link, and the section title "Unit 10: The Join Statement". Below the title, a paragraph states: "Programmers frequently join data from a number of different tables in order to obtain more information. They also--perhaps even more frequently--build queries to obtain information from more than one table in order to generate better information. In this section, we will learn



## RESSOURCE 2 COMBINÉE

### Titre :

Interrogation de bases de données SQL

### Auteur et licence :

STÉPHANE CROZAT

Paternité - Partage des Conditions Initiales à l'Identique : <http://creativecommons.org/licenses/by-sa/2.0/fr/>

### Date de publication :

13 février 2017

### Date de consultation :

Vendredi 27 octobre 2017

### URL :

<https://stph.scenari-community.org/bdd/sql2.pdf>

### Captures d'écran :

# Interrogation de bases de données SQL



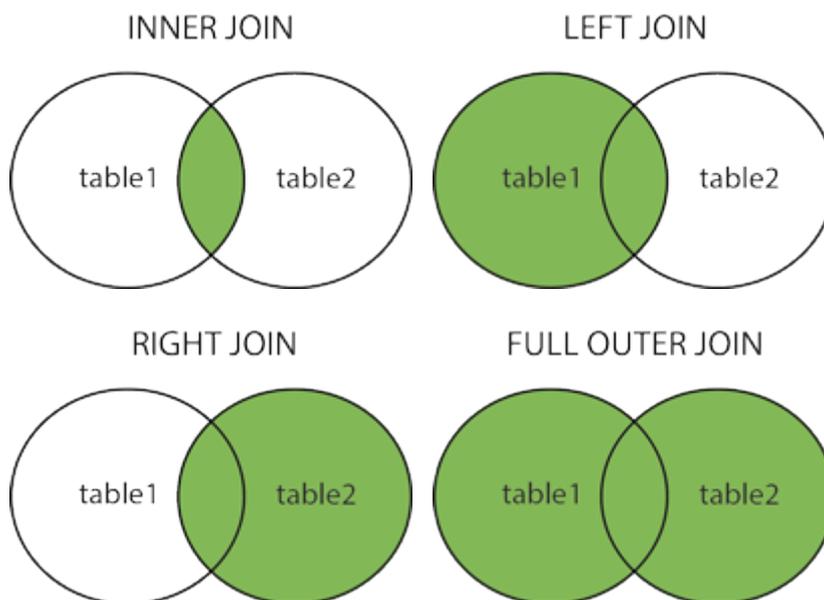
STÉPHANE CROZAT

## 1. Différents Types de jointures

Une clause JOIN est utilisée pour combiner des lignes de deux tables ou plus, en fonction d'une colonne connexe entre elles.

Il existe différents types de jointures en SQL:

- **(INNER) JOIN**
- **LEFT (OUTER) JOIN**
- **RIGHT (OUTER) JOIN**
- **SELF JOIN**



## 2. INNER JOIN

Renvoie les enregistrements qui ont des valeurs correspondantes dans les deux tables.

Le mot INNER peut être enlevé.

**Syntaxe :**

**SELECT \***

**FROM table1 INNER JOIN table2**

**ON <condition>**

Et pour plusieurs relations :

```
SELECT *  
FROM table1 INNER JOIN table2 ON <condition>  
INNER JOIN tablei ON <condition>
```

#### Exemple

```
SELECT Orders.OrderID, Customers.CustomerName, Orders.OrderDate  
FROM Orders JOIN Customers  
ON Orders.CustomerID = Customers.CustomerID
```

### **3. LEFT (OUTER) JOIN**

Le mot clé LEFT JOIN renvoie tous les enregistrements de la table de gauche (table1) et les enregistrements correspondants de la table de droite (table2). Le résultat est NULL du côté droit, s'il n'y a pas de correspondance.

Le mot OUTER peut être enlevé.

#### Syntaxe :

```
SELECT column_name(s)  
FROM table1 LEFT JOIN table2  
ON table1.column_name = table2.column_name;
```

#### Exemple

```
SELECT Num  
FROM Avion LEFT JOIN Vol  
ON Avion.Num=Vol.Num
```

Cette requête permet de sélectionner tous les avions, y compris ceux non affectés à un vol.

## 4. RIGHT (OUTER) JOIN

Le mot clé RIGHT JOIN renvoie tous les enregistrements de la table de droite (table2) et les enregistrements correspondants de la table de gauche (table1). Le résultat est NULL du côté gauche, lorsqu'il n'y a pas de correspondance.

Le mot INNER peut être enlevé.

### Syntaxe :

```
SELECT column_name(s)
FROM table1 RIGHT JOIN table2
    ON table1.column_name = table2.column_name ;
```

### Exemple

```
SELECT Num
FROM Vol RIGHT JOIN Avion
    ON Avion.Num=Vol.Num
```

## 5. SELF JOIN

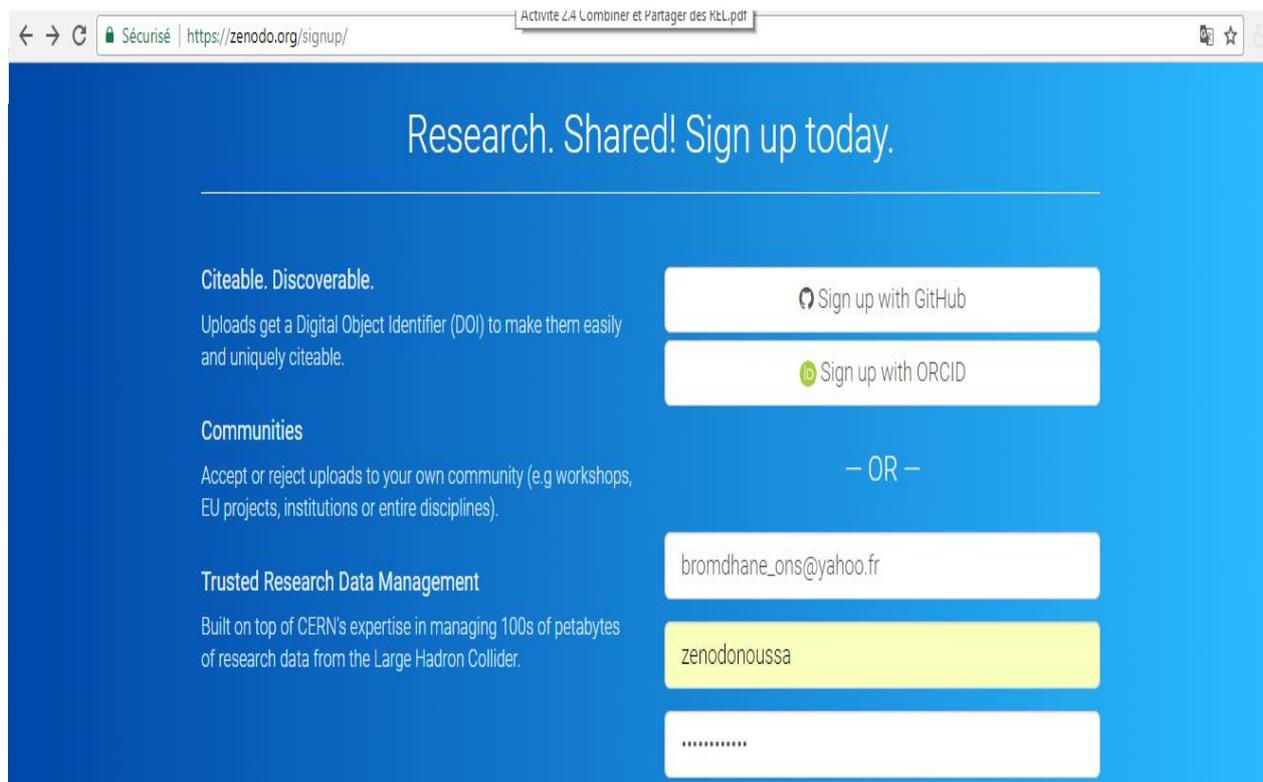
Pour réaliser une auto-jointure, c'est à dire la jointure d'une relation avec elle-même, on doit utiliser le renommage des relations. Pour renommer une relation, on note dans la clause FROM le nom de renommage après le nom de la relation : "FROM NOM\_ORIGINAL NOUVEAU\_NOM".

### Syntaxe :

```
SELECT column_name(s)
FROM table1 T1 JOIN table1 T2
    ON T1.column_name = T2.column_name ;
```

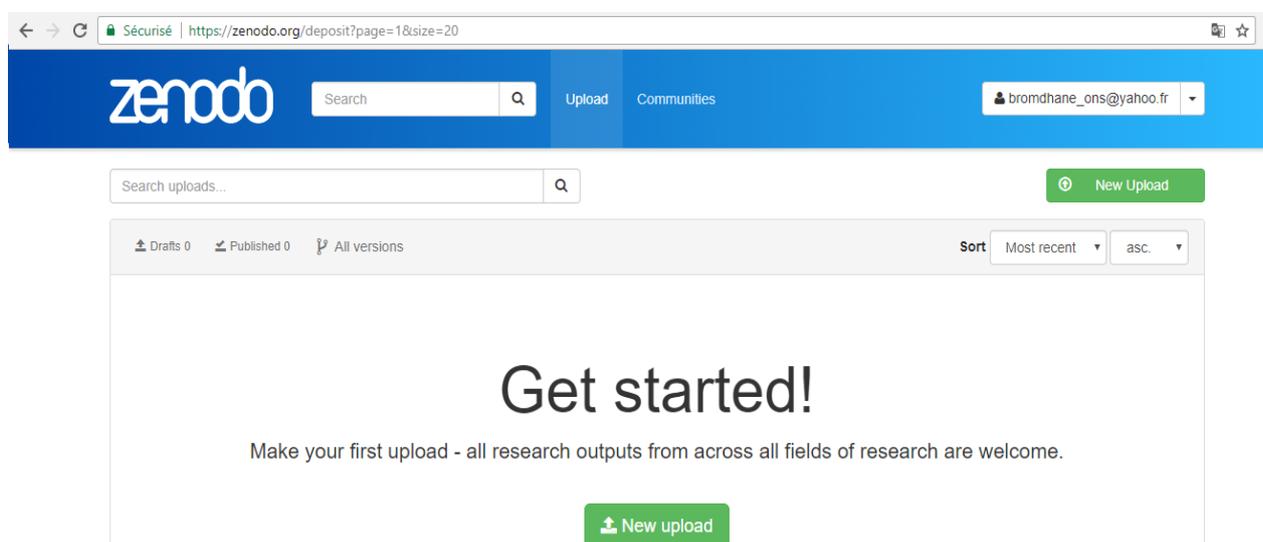
# Publication et partage de la Rel

## 1. Inscription au zenodo



The screenshot shows the Zenodo sign-up page in a browser. The URL is <https://zenodo.org/signup/>. The page has a blue header with the text "Research. Shared! Sign up today." Below this, there are three columns of text on the left: "Citeable. Discoverable." with a subtext "Uploads get a Digital Object Identifier (DOI) to make them easily and uniquely citeable.", "Communities" with a subtext "Accept or reject uploads to your own community (e.g workshops, EU projects, institutions or entire disciplines).", and "Trusted Research Data Management" with a subtext "Built on top of CERN's expertise in managing 100s of petabytes of research data from the Large Hadron Collider." On the right side, there are two buttons: "Sign up with GitHub" and "Sign up with ORCID". Below these is a separator "— OR —". There are three input fields: an email field containing "bromdhane\_ons@yahoo.fr", a username field containing "zenodonoussa", and a password field with masked characters "\*\*\*\*\*".

## 2. Cliquez sur « Upload » pour procéder au dépôt de votre REL



The screenshot shows the Zenodo upload page. The URL is <https://zenodo.org/deposit?page=1&size=20>. The page has a blue header with the Zenodo logo, a search bar, and navigation links for "Upload" and "Communities". The user's email "bromdhane\_ons@yahoo.fr" is displayed in the top right. Below the header, there is a search bar for uploads and a "New Upload" button. The main content area shows a "Get started!" message: "Make your first upload - all research outputs from across all fields of research are welcome." Below this message is another "New upload" button. The page also shows filters for "Drafts 0", "Published 0", and "All versions", and a "Sort" dropdown menu set to "Most recent" and "asc.".

## New upload

**Instructions:** (i) Upload minimum one file or fill-in required fields (marked with a red star). (ii) Press 'Save' to save your upload for editing later. (iii) When ready, press 'Publish' to finalize and make your upload public.

Files ▾

Drag and drop files here

— or —

Upload type required ▾

  
Publication

  
Poster

  
Presentation

  
Dataset

  
Image

  
Video/Audio

  
Software

  
Lesson

Basic information required ▾

**Digital Object Identifier**

Optional. Did your publisher already assign a DOI to your upload? If not, leave the field empty and we will register a new DOI for you. A DOI allows others to easily and unambiguously cite your upload. Please note that it is NOT possible to edit a Zenodo DOI once it has been registered by us, while it is always possible to edit a custom DOI.

**Publication date**

Required. Format: YYYY-MM-DD. In case your upload was already published elsewhere, please use the date of first publication.

**Title**  \*

Required.

**Authors**    \* ✕

Optional.

[+ Add another author](#)

**Description**  \*



C'est un chapitre du cours bases de données qui explique les différents types de la jointure dans le langage SQL.

**Language**  ✓

Optional. Primary language of the record. Start by typing the language's common name in English, or its ISO 639 code (two or three-letter code). See [ISO 639 language codes list](#) for more information.

**Keywords**  ✕

+ Add another keyword

**Additional notes**

Optional.

License required ▾

- Access right \***
- Open Access
  - Embargoed Access
  - Restricted Access
  - Closed Access

Required. Open access uploads have considerably higher visibility on Zenodo.

**License \***

Required. Selected license applies to all of your files displayed on the top of the form. If you want to upload some of your files under different licenses, please do so in separate uploads. If you cannot find the license you're looking for, include a relevant LICENSE file in your record and choose one of the 'Other' licenses available ('Other (Open)', 'Other (Attribution)', etc.). The supported open licenses in the list are harvested from [opendefinition.org](#). If you think that an open license is missing from the list, please [contact us](#).

Communities recommended ▾

Any user can create a community collection on Zenodo ([browse communities](#)). Specify communities which you wish your upload to appear in. The owner of the community will be notified, and can either accept or reject your request.

**Communities**  ✕