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CSD 310

Module8.1

INNER JOIN

The INNER JOIN keyword is utilized in MySQL to select records with the same value from different database tables. The syntax when using the INNER JOIN keyword may look like the following:

SELECT *column\_name(s)*  
FROM *table1*  
INNER JOIN *table2*ON *table1.column\_name*=*table2.column\_name*;

Below is an example using tables based on college students’ information as well as the courses they are enrolled in for the semester to demonstrate how the INNER JOIN keyword is put into practice:

**Table 1: students**

|  |  |  |  |
| --- | --- | --- | --- |
| **student\_id** | **fname** | **lname** | **age** |
| 01 | Jenny | Long | 19 |
| 02 | Dani | Pierce | 18 |
| 03 | Ben | Johnson | 19 |

**Table 2: enrollment**

|  |  |  |
| --- | --- | --- |
| **course\_id** | **course\_name** | **student\_id** |
| 101 | Calculus | 01 |
| 201 | Biology | 03 |
| 103 | Statistics | 03 |

Based on the tables, the use of the INNER JOIN keyword would look as follows:

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Resulting in a new table that would look like:

|  |  |  |
| --- | --- | --- |
| **student\_id** | **lname** | **course\_name** |
| 01 | Long | Calculus |
| 03 | Johnson | Biology |
| 03 | Johnson | Statistics |

Another example using the INNER JOIN keyword could be to identify a relationship between courses and the professor that teach the courses which would look as follows:

**Table 1: courses**

|  |  |
| --- | --- |
| **course\_id** | **course\_name** |
| 101 | Calculus |
| 201 | Biology |
| 103 | Statistics |

**Table 2: professors**

|  |  |  |
| --- | --- | --- |
| **professor\_id** | **professor\_lname** | **course\_id** |
| 001 | Lee | 101 |
| 002 | Albert | 201 |
| 003 | Orlando | 103 |

Based on the tables, the use of the INNER JOIN keyword would look as follows:

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Resulting in a new table that would look like:

|  |  |  |
| --- | --- | --- |
| **course\_id** | **course\_name** | **professor\_lname** |
| 101 | Calculus | Lee |
| 201 | Biology | Albert |
| 103 | Statistics | Orlando |

In MySQL, the JOIN and INNER JOIN keywords will yield the same result because INNER is the automatic default when only using the JOIN keyword. This would mean that the above examples could be written with JOIN rather than INNER JOIN and still result in the same tables. The syntax would look as follows:

**Joining students and enrollment:**

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**Joining professors and courses:**

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Resources:

<https://www.w3schools.com/sql/sql_join_inner.asp#:~:text=JOIN%20and%20INNER%20JOIN%20will,parser%20actually%20writes%20INNER%20JOIN%20>.

<https://www.w3schools.com/mysql/mysql_join.asp>