**Tratamiento de Nulos:**

**Tratamiento de Nulos:** Crear Tabla: **Nulo** (A y B son numéricos y admitan nulos)

**A B**

15 10

35 35

140

100

7 110

33 60

Reglas:

* No pertenece a ningún dominio de datos
* Pero realmente sí que es un marcador que indica la ausencia de un valor.
* En MySQL, **0** o **NULL** se interpretan como falso, y cualquier otro valor, como verdadero.
* Si la cadena comienza por carácter o por el número 0, la cadena se evalúa como 0, por lo tanto, Falso.   
  Si el carácter es un número diferente de 0, la cadena se evalúa como 1, por lo que es Verdadero.
* Las funciones de columnas ignoran los Null.
* Resulta Null cuando en una expresión uno de los operando es Null.
* **Necesidad de una función** 
  + **IF**(expresión condicional,verdadero,falso)
  + **IFNULL**(expresión,verdadero)
  + **NULLIF**()
  + **isNULL**()

La función IF () devuelve un valor si una condición es VERDADERA, u otro valor si una condición es FALSA.

[SELECT](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fselect.html) [IF](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fcontrol-flow-functions.html#function_if)( a, "Verdadero", "False" ) FROM `nulo`

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) a, [IF](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/control-flow-functions.html#function_if)( a, a, [avg](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_avg)(a) ) FROM `nulo` funciona solo para el primero

[SELECT](http://localhost/phpmyadmin/url.php?url=http://dev.mysql.com/doc/refman/5.5/en/select.html) [if](http://localhost/phpmyadmin/url.php?url=http://dev.mysql.com/doc/refman/5.5/en/control-flow-functions.html" \l "function_if" \t "mysql_doc)(A,A,([Select](http://localhost/phpmyadmin/url.php?url=http://dev.mysql.com/doc/refman/5.5/en/select.html" \t "mysql_doc) [avg](http://localhost/phpmyadmin/url.php?url=http://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html" \l "function_avg" \t "mysql_doc)(A) from nulo)) FROM `nulo` WHERE 1

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [avg](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_avg)([if](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/control-flow-functions.html#function_if)(a,a,([select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [avg](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_avg)(a) from nulo))) from nulo

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [avg](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_avg)(a), ([avg](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_avg)(a) + 92)/3 FROM `nulo` WHERE 1

If será nulo si la condición es nula. Con cadenas es true si la cadena empieza por número excepto el cero.

[Select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [if](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/control-flow-functions.html" \l "function_if" \t "mysql_doc)("Hola","true","false") -------à false

[Select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [if](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/control-flow-functions.html" \l "function_if" \t "mysql_doc)("0Hola","true","false") -------à false

[Select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [if](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/control-flow-functions.html" \l "function_if" \t "mysql_doc)("$Hola","true","false") -------à false

[Select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [if](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/control-flow-functions.html" \l "function_if" \t "mysql_doc)("5$Hola","true","false") -------à true

[Select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [if](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/control-flow-functions.html" \l "function_if" \t "mysql_doc)(null,"true","false") ------à false

[Select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [if](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/control-flow-functions.html" \l "function_if" \t "mysql_doc)(0,"true","false") ------à false

[Select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [if](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/control-flow-functions.html" \l "function_if" \t "mysql_doc)(20,"true","false") ------à true

La función ISNULL () devuelve 1 o 0 dependiendo de si una expresión es NULL.

Si expresión es NULL, esta función devuelve verdadero. De lo contrario, devuelve la propia expresión.

[**SELECT**](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fselect.html&token=535bb7f7b487b1faac186f0b64b0a2ea) [IFNULL](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fcontrol-flow-functions.html%23function_ifnull&token=535bb7f7b487b1faac186f0b64b0a2ea)( A, 'nulo' )   
**FROM** `nulo`

IFNULL solo será nulo cuando el primer parámetro sea null, no contempla 0 como nulo

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) IFNULL(0,"nulo") ----à 0

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) IFNULL(null,"nulo") ----à nulo

[Select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) ifNull(a,([select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [avg](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_avg)(a) from nulo)) from nulo

La función NULLIF () compara dos expresiones y devuelve NULL si son iguales. De lo contrario, se devuelve la primera expresión.

[**SELECT**](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fselect.html&token=535bb7f7b487b1faac186f0b64b0a2ea) a, b, [NULLIF](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fcontrol-flow-functions.html%23function_nullif&token=535bb7f7b487b1faac186f0b64b0a2ea)( a, b )   
**FROM** `nulo`

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) a, IFNULL( a, ([select](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "mysql_doc) [avg](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html" \l "function_avg" \t "mysql_doc)(a) from nulo)) FROM `nulo` si

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html" \t "mysql_doc) a, IFNULL( a, [avg](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html" \l "function_avg" \t "mysql_doc)(a)) FROM `nulo` funciona solo para el primerop

[NULLIF](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fcontrol-flow-functions.html%23function_nullif&token=535bb7f7b487b1faac186f0b64b0a2ea): deVUELVE NULL SI SON IGUALES O SI EL PRIMER PARÁMETRO Es NULO

**SELECT NULLIF(null , "ola") -------à null**

**SELECT NULLIF("ola" , "ola") -------à null**

**SELECT NULLIF("Hola" , "ola") -------à Hola**

**SELECT NULLIF(1 , "ola") -------à 1**

**SELECT NULLIF(1 , "5ola") -------à 1**

**SELECT NULLIF(1 , 1) -------à null**

**SELECT NULLIF(0 , 0) -------à null**

**SELECT NULLIF(0 , 5-(3+2)) -------à null**

**SELECT NULLIF(0 , "ola") -------à null**

**SELECT NULLIF(0 , "5ola") -------à 0**

**SELECT NULLIF(0 , 1) -------à 0**

**SELECT NULLIF(“0” , 0) -------à null**

**SELECT NULLIF(“0” , “ola”) -------à 0**

**SELECT NULLIF(“o” , “ola”) -------à o**

La función IFNULL () devuelve un valor especificado si la expresión es NULL.

Si la expresión NO es NULL, esta función devuelve la expresión.

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) \* FROM `sistemas\_20\_21\_primera` WHERE isnull(`note`)

* **Funciones de Columnas** 
  + Casi todas las funciones de columnas realizan un paso de eliminación Null.
  + Los valores Null no están incluidos en el resultado final del cálculo
  + Ojo con Avg().

[**SELECT**](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fselect.html&token=535bb7f7b487b1faac186f0b64b0a2ea) [AVG](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fgroup-by-functions.html%23function_avg&token=535bb7f7b487b1faac186f0b64b0a2ea)( [IFNULL](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fcontrol-flow-functions.html%23function_ifnull&token=535bb7f7b487b1faac186f0b64b0a2ea)( a, 0 ) ) , [AVG](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fgroup-by-functions.html%23function_avg&token=535bb7f7b487b1faac186f0b64b0a2ea)( a ) , [SUM](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fgroup-by-functions.html%23function_sum&token=535bb7f7b487b1faac186f0b64b0a2ea)( a ) [/](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Farithmetic-functions.html%23operator_divide&token=535bb7f7b487b1faac186f0b64b0a2ea) [COUNT](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fgroup-by-functions.html%23function_count&token=535bb7f7b487b1faac186f0b64b0a2ea)( a ) , [SUM](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fgroup-by-functions.html%23function_sum&token=535bb7f7b487b1faac186f0b64b0a2ea)( a ) [/](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Farithmetic-functions.html%23operator_divide&token=535bb7f7b487b1faac186f0b64b0a2ea) [COUNT](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fgroup-by-functions.html%23function_count&token=535bb7f7b487b1faac186f0b64b0a2ea)( \* )   
**FROM** `nulos`

|  | | | |
| --- | --- | --- | --- |
| **AVG( IFNULL( a, 0 ) )** | **AVG( a )** | **SUM( a ) / COUNT( a )** | **SUM( a ) / COUNT( \* )** |
| 29.6250 | 39.5000 | 39.5000 | 29.6250 |

* El estándar SQL no define explícitamente por defecto la clase de orden para los Null. En MySQL null es el más pequeño. Por supuesto que los números.

[**SELECT**](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fselect.html&token=535bb7f7b487b1faac186f0b64b0a2ea) a  
**FROM** `nulos`   
**ORDER** **BY** 1

* DISTINCT funciona con nulos.

[**SELECT**](http://localhost/phpmyadmin/url.php?url=http%3A%2F%2Fdev.mysql.com%2Fdoc%2Frefman%2F5.5%2Fen%2Fselect.html&token=535bb7f7b487b1faac186f0b64b0a2ea) **DISTINCT** a  
**FROM** `nulos`

[IFNULL(***expr1***,***expr2***)](http://dev.mysql.com/doc/refman/5.7/en/control-flow-functions.html#function_ifnull)

If ***expr1*** is not NULL, [IFNULL()](http://dev.mysql.com/doc/refman/5.7/en/control-flow-functions.html#function_ifnull) returns ***expr1***; otherwise it returns ***expr2***. [IFNULL()](http://dev.mysql.com/doc/refman/5.7/en/control-flow-functions.html#function_ifnull) returns a numeric or string value, depending on the context in which it is used.

mysql> **SELECT IFNULL(1,0);**

-> 1

mysql> **SELECT IFNULL(NULL,10);**

-> 10

mysql> **SELECT IFNULL(1/0,10);**

-> 10

mysql> **SELECT IFNULL(1/0,'yes');**

-> 'yes'

[NULLIF(***expr1***,***expr2***)](http://dev.mysql.com/doc/refman/5.7/en/control-flow-functions.html#function_nullif)

Returns NULL if ***expr1*** = ***expr2*** is true, otherwise returns ***expr1***. This is the same as [CASE WHEN ***expr1*** = ***expr2*** THEN NULL ELSE***expr1*** END](http://dev.mysql.com/doc/refman/5.7/en/control-flow-functions.html#operator_case).

mysql> **SELECT NULLIF(1,1);**

-> NULL

mysql> **SELECT NULLIF(1,2);**

-> 1

Note that MySQL evaluates ***expr1*** twice if the arguments are not equal.