

HIVE - BUILT-IN FUNCTIONS

http://www.tutorialspoint.com/hive/hive_built_in_functions.htm

Copyright © tutorialspoint.com

This chapter explains the built-in functions available in Hive. The functions look quite similar to SQL functions, except for their usage.

Built-In Functions

Hive supports the following built-in functions:

Return Type	Signature	Description
BIGINT	<i>rounddoublea</i>	It returns the rounded BIGINT value of the double.
BIGINT	<i>floordoublea</i>	It returns the maximum BIGINT value that is equal or less than the double.
BIGINT	<i>ceildoublea</i>	It returns the minimum BIGINT value that is equal or greater than the double.
double	<i>rand, randintseed</i>	It returns a random number that changes from row to row.
string	<i>concat</i> <i>stringA, stringB, . . .</i>	It returns the string resulting from concatenating B after A.
string	<i>substrstringA, intstart</i>	It returns the substring of A starting from start position till the end of string A.
string	<i>substr</i> <i>stringA, intstart, intlength</i>	It returns the substring of A starting from start position with the given length.
string	<i>upperstringA</i>	It returns the string resulting from converting all characters of A to upper case.
string	<i>ucasestringA</i>	Same as above.
string	<i>lowerstringA</i>	It returns the string resulting from converting all characters of B to lower case.
string	<i>lcasestringA</i>	Same as above.
string	<i>trimstringA</i>	It returns the string resulting from trimming spaces from both ends of A.
string	<i>ltrimstringA</i>	It returns the string resulting from trimming spaces from the beginning <i>lefthandside</i> of A.
string	<i>rtrimstringA</i>	<i>rtrimstringA</i> It returns the string resulting from trimming spaces from the end <i>righthandside</i> of A.
string	<i>regexp_replace</i> <i>stringA, stringB, stringC</i>	It returns the string resulting from replacing all substrings in B that match the Java regular expression syntax with C.
int	<i>sizeMap < K. V ></i>	It returns the number of elements in the map type.
int	<i>sizeArray < T ></i>	It returns the number of elements in the array type.
value of <type>	<i>cast</i> <i>< expr > as < type ></i>	It converts the results of the expression <i>expr</i> to <type> e.g. <i>cast '1' asBIGINT</i> converts the string '1' to its integral representation. A NULL is returned if the conversion does not succeed.

string	<code>from_unixtime intunixtime</code>	convert the number of seconds from Unix epoch 1970-01-01 00:00:00 UTC to a string representing the timestamp of that moment in the current system time zone in the format of "1970-01-01 00:00:00"
string	<code>to_datestringtimestamp</code>	It returns the date part of a timestamp string: <code>to_date " 1970-01-01 00:00:00 " = "1970-01-01"</code>
int	<code>yearstringdate</code>	It returns the year part of a date or a timestamp string: <code>year " 1970-01-01 00:00:00 " = 1970</code> , <code>year " 1970-01-01 " = 1970</code>
int	<code>monthstringdate</code>	It returns the month part of a date or a timestamp string: <code>month " 1970-11-01 00:00:00 " = 11</code> , <code>month " 1970-11-01 " = 11</code>
int	<code>daystringdate</code>	It returns the day part of a date or a timestamp string: <code>day " 1970-11-01 00:00:00 " = 1</code> , <code>day " 1970-11-01 " = 1</code>
string	<code>get_json_object stringjson_string, stringpath</code>	It extracts json object from a json string based on json path specified, and returns json string of the extracted json object. It returns NULL if the input json string is invalid.

Example

The following queries demonstrate some built-in functions:

round function

```
hive> SELECT round(2.6) from temp;
```

On successful execution of query, you get to see the following response:

```
2.0
```

floor function

```
hive> SELECT floor(2.6) from temp;
```

On successful execution of the query, you get to see the following response:

```
2.0
```

ceil function

```
hive> SELECT ceil(2.6) from temp;
```

On successful execution of the query, you get to see the following response:

```
3.0
```

Aggregate Functions

Hive supports the following built-in **aggregate functions**. The usage of these functions is as same as the SQL aggregate functions.

Return Type	Signature	Description
-------------	-----------	-------------

BIGINT	count * , countexpr,	count * - Returns the total number of retrieved rows.
DOUBLE	sumcol, sum DISTINCTcol	It returns the sum of the elements in the group or the sum of the distinct values of the column in the group.
DOUBLE	avgcol, avg DISTINCTcol	It returns the average of the elements in the group or the average of the distinct values of the column in the group.
DOUBLE	mincol	It returns the minimum value of the column in the group.
DOUBLE	maxcol	It returns the maximum value of the column in the group.

Processing math: 100%