Day - 5

08 August 2025 08:06

1. General function.
2. join function.
3. Time func.
4. Mathematical.
5. Network func.
6. DPL - Architecture.
7. Usage mechanism.
8. DPL Modifier.
9. DPL Grammer.
10. DPL Literals.

1. General function:-

1. exist.
2. in.
3. record.
4. entityName.

1. Entity Name:- Return the name of entity.

Synt - entityName (expression[, type])

2. in:- Test if value is a member of an array.

in(-, -, -)

↳ boolean → True/false.

3. exist:- Verify if a field exist.

↳ return the Boolean Value.

|— exists(f2)

2. Mathematical func:-

1. abs
2. ceil
3. floor.
4. Sin
6. round.

. expression.

4) bin
5) random

1. abs :- Return the absolute value of numeric expression.

Syn :- abs (expression)

Returns :- double, log or duration.

2. ceil :- Calculate the smallest value or equal to the numeric expression.

ceil (expression)

| ceil (x)

↓

whole no.

3. floor :- largest value.

| floor (x)

4. random :- Create a random value.

Syn :- random()

5. bin :- Rounds value down to a multiple of a given numeric bin size.

bin(expression, interval)

6. round() :- round upto a specific decimal.

round (exp) → whole no.

round (expression [, decimal]) → specific decimal

round (x, 5) → splunk

round (x, decimal: 5) → DQ

3. Network functions →

1. ip
2. ipMask.
3. isIPV4
4. IsIPV6
5. isIP
6. ipIN
7. ip Is public.
8. ip Is Private.

1. ip → Return value is ip.

ip(expression)

2. ipMask:→ Mask your ip address.

Syn:- ipMask (expression, maskBit, [, ipV6 MaskBits :-])

ipV4 → 32 bit → 2^{32} → 4.3 billion

ipV6 → 128 bit → 2^{128} → 340 undecillion - more secure

127.0.0.1 → 0-7, 8-15, 16-23, 24-31

0-255

10.0.0.0/8

8.8.8.8

3. Is IPV4 → Validate where it is IPV4 or not.

Syn:- isIPV4 (expression)

4. isIPV6 → Validate whether it is IPV6 or not.

syn:- isIPV6 (expression)

5. ipIspublic → Validate whether it is public IP address or not.

Syn:- IP ispublic (expression).

6. ipIs private:→ Validate whether it is private IP address or not.

Syn:- IP is private (expression).

ex. Broadcast address.

(6) ipIs private;→ Valida-

Syn:- IP is private (ip).

255.255.255.255 → Neither public nor private. Broadcast address.

↓

Limited / restricted.

10.0.0.0

0-255 0-255 0-255

127.0.0.0 — 127.255.255.255 → loopback address.

↓

Neither public nor private

refer to local machine.

(4.) Time Functions:-

(1) duration
(2) format Timestamp.
(3) now.
(4) Timestamp.
(5) getMinute.
(6) get hour.
(7) get start
(8) get year.
(9) getsecond.
(10) get week of year.
(11) timeframe.
(12) get End.

(1) duration- Calculate the no. of time unit (day, min, year) b/w two dates.

(2.) formatTimestamp:- format string.

Syntax:- formatTimestamp (timestamp [, interval] [, format] [, timezone] [, locale])

↓ required.

↓ format the timezone

↓ optional

format the time zone

All letters 'A' to 'Z' and 'a' to 'z' are reserved as pattern letters. The following pattern letters are defined:

Symbol	Meaning	Presentation	Examples
------	-------	------------	-------
G	era	text	AD; Anno Domini; A
u	year	year	2004; 04
y	year-of-era	year	2004; 04
D	day-of-year	number	189
M/L	month-of-year	number/text	7; 07; Jul; July; J
d	day-of-month	number	10
Q/q	quarter-of-year	number/text	3; 03; Q3; 3rd quarter
Y	week-based-year	year	1996; 96
w	week-of-week-based-year	number	27
W	week-of-month	number	4
E	day-of-week	text	Tue; Tuesday; T
e/c	localized day-of-week	number/text	2; 02; Tue; Tuesday; T
F	week-of-month	number	3
a	am-pm-of-day	text	PM
h	clock-hour-of-am-pm (1-12)	number	12
K	hour-of-am-pm (0-11)	number	0
k	clock-hour-of-am-pm (1-24)	number	0
H	hour-of-day (0-23)	number	0
m	minute-of-hour	number	30
s	second-of-minute	number	55
S	fraction-of-second	fraction	978
A	milli-of-day	number	1234
n	nano-of-second	number	987654321
N	nano-of-day	number	1234000000
V	time-zone ID	zone-id	America/Los_Angeles; Z; -08:30
z	time-zone name	zone-name	Pacific Standard Time; PST
O	localized zone-offset	offset-O	GMT+8; GMT+08:00; UTC-08:00;
X	zone-offset 'Z' for zero	offset-X	Z; -08; -0830; -08:30; -083015; -08:30:15;
x	zone-offset	offset-x	+0000; -08; -0830; -08:30; -083015; -08:30:15;
Z	zone-offset	offset-Z	+0000; -0800; -08:00;
p	pad next	pad modifier	1
'	escape for text	delimiter	
''	single quote	literal	'
[	optional section start		
]	optional section end		
#	reserved for future use		
{	reserved for future use		
}	reserved for future use		

From <https://docs.oracle.com/javase/8/docs/api/java/time/format/DateTimeFormatter.html>

(3) getDayofMonth.
(4) get Dayof Week
(5) get Day of year.
(6) get Hour.
(7) get Minute.
(8) get second.
→ (timestamp [, timezone])

|fieldAdd getHour (timestamp)

getstart → timeframe, it will give the start timestamp
getEnd → time frame, it will give the end timestamp

|fieldAdd getstart (___), getend(___)

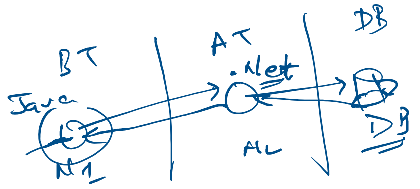
(5) join function:-

(1) lookup.

3 Tier.

BT AT .Net DB

① lookup.
② getNodeName →
③ getNodeField →



1. Lookup:- Return a record from a subquery product, a match b/w a filed in the source Table

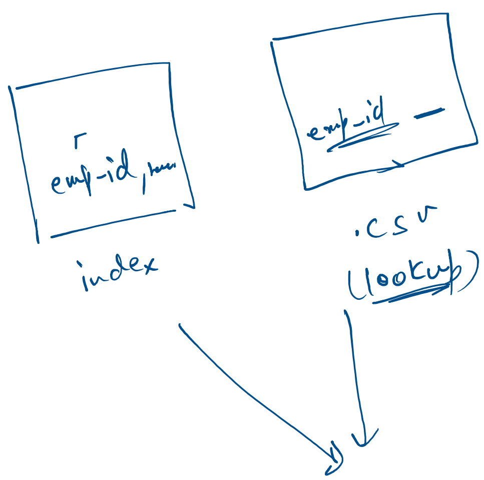
Syntax

lookup (lookupTable, lookupfield [, sourcefield], [, execution order])

- lookupTable (req.) → execution block
- lookupfield (req.) → expression field (left side)
- sourcefield → field in source data (right) → optional
- execution order → join - auto, left first, right first etc.

Return:- Record.

splunk lookup →



| lookup abc.csv emp_id OUTPUT designation

emp_id	name	designation

DSL:- field logi.