# ADF FUNCTIONS CHEATSHEET

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## **Date Functions**

Function: addDays

**Description:** Adds days to a timestamp.

**Example:** @addDays('2023-03-20T00:00:00Z', 2) → "2023-03-22T00:00:00Z"

Function: addHours

**Description:** Adds hours to a timestamp.

**Example:** @addHours('2023-03-20T00:00:00Z', 3) → "2023-03-20T03:00:00Z"

Function: addMinutes

**Description:** Adds minutes to a timestamp.

Example: @addMinutes('2023-03-20T00:00:00Z', 30) → "2023-03-20T00:30:00Z"

Function: addSeconds

**Description:** Adds seconds to a timestamp.

**Example:** @addSeconds('2023-03-20T00:00:00Z', 45) → "2023-03-20T00:00:45Z"

Function: addToTime

**Description:** Adds a specified time unit (day, hour, etc.) to a timestamp.

Example: @addToTime('2023-03-20T00:00:00Z', 1, 'day') → "2023-03-21T00:00:00Z"

Function: convertFromUtc

**Description:** Converts UTC timestamp to a specified time zone.

Example: @convertFromUtc('2023-03-20T12:00:00Z', 'Pacific Standard Time') → "2023-

03-20T05:00:00"

Function: convertTimeZone

**Description:** Converts timestamp from one time zone to another.

Example: @convertTimeZone('2023-03-20T12:00:00', 'UTC', 'Pacific Standard Time') →

"2023-03-20T04:00:00"

Function: convertToUtc

**Description:** Converts a timestamp from a given time zone to UTC.

Example: @convertToUtc('2023-03-20T12:00:00', 'Pacific Standard Time') → "2023-03-

20T19:00:00Z"

Function: dayOfMonth

**Description:** Returns the day of the month from a timestamp.

**Example:** @dayOfMonth('2023-03-20T00:00:00Z') → 20

Function: dayOfWeek

**Description:** Returns the day of the week (0 = Sunday, 1 = Monday, etc.).

**Example:** @dayOfWeek('2023-03-20T00:00:00Z') → 1

Function: dayOfYear

**Description:** Returns the day number within the year from a timestamp.

**Example:** @dayOfYear('2023-03-20T00:00:00Z') → 79

Function: formatDateTime

**Description:** Formats a timestamp using a custom format string.

**Example:** @formatDateTime('2023-03-20T12:00:00Z', 'yyyy-MM-dd') → "2023-03-20"

Function: getFutureTime

**Description:** Gets future time by adding units to current UTC time.

**Example:** @getFutureTime(5, 'Day') → "2023-03-29T12:00:00Z" (if today is 2023-03-24)

Function: getPastTime

**Description:** Gets past time by subtracting units from current UTC time.

**Example:** @getPastTime(5, 'Day') → "2023-03-19T12:00:00Z"

**Function:** startOfDay

**Description:** Gets the timestamp for the start of the day.

**Example:** @startOfDay('2023-03-20T12:00:00Z') → "2023-03-20T00:00:00Z"

Function: startOfHour

**Description:** Gets the timestamp for the start of the hour.

Example: @startOfHour('2023-03-20T12:34:56Z') → "2023-03-20T12:00:00Z"

Function: startOfMonth

**Description:** Gets the timestamp for the start of the month.

Example: @startOfMonth('2023-03-20T00:00:00Z') → "2023-03-01T00:00:00Z"

Function: subtractFromTime

**Description:** Subtracts time units from a timestamp.

Example: @subtractFromTime('2023-03-20T00:00:00Z', 1, 'day') → "2023-03-

19T00:00:00Z"

Function: ticks

**Description:** Returns ticks (100-nanosecond intervals) since 0001-01-01T00:00:00.

**Example:** @ticks('2023-03-20T00:00:00Z') → 637841088000000000

Function: utcNow

**Description:** Returns the current UTC timestamp. **Example:** @utcNow() → "2023-03-24T12:34:56.789Z"

# **String Functions**

Function: concat

**Description:** Combines two or more strings into one. **Example:** @concat('Hello', ' ', 'World') → "Hello World"

Function: endsWith

**Description:** Checks if a string ends with a specific substring.

Example: @endsWith('Hello World', 'World') → true

Function: guid

**Description:** Generates a globally unique identifier (GUID).

**Example:** @guid() → "c5f5b5a5-5f5e-4f5d-5a5f-5b5c5d5e5f5g" (example output)

Function: indexOf

**Description:** Returns the index of the first occurrence of a substring.

Example: @indexOf('Hello World', 'World') → 6

Function: lastIndexOf

**Description:** Returns the index of the last occurrence of a substring.

Example: @lastIndexOf('Hello World World', 'World') → 12

Function: replace

**Description:** Replaces a substring with another string.

Example: @replace('Hello World', 'World', 'ADF') → "Hello ADF"

Function: split

**Description:** Splits a string into an array using a delimiter. **Example:** @split('Hello,World', ',') → ["Hello", "World"]

Function: startsWith

**Description:** Checks if a string starts with a specific substring.

**Example:** @startsWith('Hello World', 'Hello') → true

Function: substring

**Description:** Extracts characters from a string using start index and length.

**Example:** @substring('Hello World', 0, 5) → "Hello"

Function: toLower

**Description:** Converts a string to lowercase.

**Example:** @toLower('Hello World') → "hello world"

Function: toUpper

**Description:** Converts a string to uppercase.

**Example:** @toUpper('Hello World') → "HELLO WORLD"

Function: trim

**Description:** Removes whitespace from the start and end of a string.

Example: @trim(' Hello World') → "Hello World"

#### **Collection Functions**

Function: contains

**Description:** Checks if a collection contains a specific item.

**Example:** @contains('Hello World', 'World') → true

Function: empty

**Description:** Checks if a collection or string is empty.

Example: @empty(") → true

Function: first

**Description:** Returns the first item from a collection.

Example: @first(['Hello', 'World']) → "Hello"

Function: intersection

**Description:** Returns the common items between two collections.

**Example:** @intersection(['A', 'B', 'C'], ['B', 'C', 'D']) → ["B", "C"]

Function: join

**Description:** Joins items in an array into a string, separated by a delimiter.

**Example:** @join(['Hello', 'World'], ', ') → "Hello, World"

Function: last

**Description:** Returns the last item in a collection.

Example: @last(['Hello', 'World']) → "World"

Function: length

**Description:** Returns the number of items in a string or array.

Example: @length('Hello World') → 11

Function: skip

**Description:** Skips a number of items from the front of a collection.

**Example:** @skip(['A', 'B', 'C', 'D'], 2) → ["C", "D"]

Function: take

**Description:** Takes a specified number of items from the front of a collection.

**Example:** @take(['A', 'B', 'C', 'D'], 2) → ["A", "B"]

Function: union

**Description:** Combines items from two collections, removing duplicates.

**Example:** @union(['A', 'B', 'C'], ['B', 'C', 'D']) → ["A", "B", "C", "D"]

## **Logical Functions**

Function: and

**Description:** Returns true if all expressions are true.

**Example:** @and(true, false) → false

Function: equals

**Description:** Checks if two values are equal.

**Example:** @equals $(5, 5) \rightarrow true$ 

Function: greater

**Description:** Checks if the first value is greater than the second.

**Example:** @greater(5, 3) → true

Function: greaterOrEquals

**Description:** Checks if the first value is greater than or equal to the second.

**Example:** @greaterOrEquals(5, 5) → true

Function: if

**Description:** Returns one value if the condition is true, another if false.

**Example:** @if(true, 'True', 'False') → "True"

Function: less

**Description:** Checks if the first value is less than the second.

**Example:**  $@less(3, 5) \rightarrow true$ 

Function: lessOrEquals

**Description:** Checks if the first value is less than or equal to the second.

**Example:** @lessOrEquals(5, 5) → true

Function: not

**Description:** Returns true if the expression is false.

**Example:** @not(true) → false

Function: or

**Description:** Returns true if at least one expression is true.

Example: @or(true, false) → true

# **Conversion Functions**

Function: array

**Description:** Converts a single input into an array.

**Example:** @array('["Hello", "World"]') → ["Hello", "World"]

Function: base64

**Description:** Returns the Base64-encoded version of a string. **Example:** @base64('Hello World') → "SGVsbG8gV29ybGQ="

Function: base64ToBinary

**Description:** Returns the binary value from a Base64-encoded string.

**Example:** @base64ToBinary('SGVsbG8gV29ybGQ=') → Binary representation of "Hello

World"

Function: base64ToString

**Description:** Converts Base64-encoded string to normal string. **Example:** @base64ToString('SGVsbG8gV29ybGQ=') → "Hello World"

Function: binary

**Description:** Returns binary representation of an input value.

**Example:** @binary('Hello World') → Binary representation of "Hello World"

Function: bool

**Description:** Converts input value to Boolean.

Example: @bool('true') → true

Function: coalesce

**Description:** Returns the first non-null value from parameters.

**Example:** @coalesce(null, 'Hello', 'World') → "Hello"

**Function:** createArray

**Description:** Returns an array from multiple inputs.

**Example:** @createArray('Hello', 'World') → ["Hello", "World"]

Function: dataUri

**Description:** Returns a data URI string.

**Example:** @dataUri('text/plain', 'Hello World') → "data:text/plain;base64,SGVsbG8gV29ybGQ="

Function: dataUriToBinary

**Description:** Converts a data URI to binary.

**Example:** @dataUriToBinary('data:text/plain;base64,SGVsbG8gV29ybGQ=') → Binary of

"Hello World"

Function: dataUriToString

**Description:** Converts a data URI to string.

**Example:** @dataUriToString('data:text/plain;base64,SGVsbG8gV29ybGQ=') → "Hello

World"

Function: decodeBase64

**Description:** Decodes a Base64-encoded string.

**Example:** @decodeBase64('SGVsbG8gV29ybGQ=') → "Hello World"

Function: decodeDataUri

**Description:** Returns the binary value for a data URI.

**Example:** @decodeDataUri('data:text/plain;base64,SGVsbG8gV29ybGQ=') → Binary of

"Hello World"

Function: decodeUriComponent

**Description:** Replaces escape characters with decoded values.

**Example:** @decodeUriComponent('Hello%20World') → "Hello World"

Function: encodeUriComponent

**Description:** Replaces unsafe URL characters with escape characters. **Example:** @encodeUriComponent('Hello World') → "Hello%20World"

Function: float

**Description:** Converts input to floating point number.

**Example:** @float('3.14') → 3.14

Function: int

**Description:** Converts input to integer.

**Example:** @int('5') → 5

Function: json

**Description:** Converts string/XML to JSON object.

**Example:** @json('{"hello": "world"}') → {"hello": "world"}

Function: string

**Description:** Converts input to string.

**Example:** @string(42) → "42"

Function: uriComponent

**Description:** Returns URI-encoded string.

**Example:** @uriComponent('Hello World') → "Hello%20World"

Function: uriComponentToBinary

**Description:** Converts URI-encoded string to binary.

**Example:** @uriComponentToBinary('Hello%20World') → Binary of "Hello World"

Function: uriComponentToString

**Description:** Converts URI-encoded string to string.

**Example:** @uriComponentToString('Hello%20World') → "Hello World"

Function: xml

**Description:** Converts string to XML format.

Example: @xml('<hello>world</hello>') → XML of <hello>world</hello>

Function: xpath

**Description:** Extracts value from XML using XPath.

Example: @xpath('<hello>world</hello>', '/hello') → "world"

#### **Math Functions**

Function: add

**Description:** Adds two numbers.

**Example:** @add(3, 5)  $\rightarrow$ 8

Function: div

**Description:** Divides one number by another.

**Example:**  $@div(10, 2) \rightarrow 5$ 

Function: max

**Description:** Returns the maximum of the given numbers.

**Example:**  $@max(3, 5) \rightarrow 5$ 

Function: min

**Description:** Returns the minimum of the given numbers.

**Example:**  $@min(3, 5) \rightarrow 3$ 

Function: mod

**Description:** Returns the remainder of division.

**Example:** @mod(10, 3) → 1

Function: mul

**Description:** Multiplies two numbers.

**Example:** @mul(3, 5)  $\rightarrow$  15

Function: rand

**Description:** Returns a random integer between two values. **Example:** @rand(1, 10) 4 random number between 1 and 10

Function: range

**Description:** Generates an array of integers from a start value.

**Example:** @range $(1, 5) \rightarrow [1, 2, 3, 4, 5]$ 

Function: sub

**Description:** Subtracts one number from another.

**Example:** @sub(5, 3)  $\rightarrow$ 2