Functions

Aggregate Functions

- `COUNT(array)` - Returns the number of elements in `array`
- `MIN(array)` - Returns the lowest value in `array`
- `MAX(array)` - Returns the highest value in `array`
- `FIRST(array)` - Returns the first element in `array`
- `LAST(array)` - Returns the last element in `array`
- `AVG(array)` - Returns the average value of the numerical values in `array` (ignores non-numerical values)
- `SUM(array)` - Returns the sum of the numerical values in `array` (ignores non-numerical values)
- `ANY(array)` - Returns `true` if `array` has any elements

DataType Functions

- `MINVALUE()` - Returns the singleton instance of `MinValue`
- `MAXVALUE()` - Returns the singleton instance of `MaxValue`
- `OBJECTID()` - Returns a new instance of `ObjectId`
- `GUID()` - Returns a new instance of `Guid`

- `NOW()` - Returns the current timestamp in local time
- `NOW_UTC()` - Returns the current timestamp in UTC
- `TODAY()` - Returns the current date at 00h00min00s
- `INT32(value)` - Returns `value` converted to `Int32` , or `null` if not possible
- `INT64(value)` - Returns `value` converted to `Int64` , or `null` if not possible
- `DOUBLE(value, culture)` - Returns `value` converted to `Double` according to the specified culture, or `null` if not possible
- `DECIMAL(value, culture)` - Returns `value` converted to `Decimal` according to the specified culture, or `null` if not possible
- `STRING(value)` - Returns the string representation of `value`
- `BINARY(value)` - Returns `value` converted to `BsonBinary` , or `null` if not possible
- `OBJECTID(value)` - Returns `value` converted to `ObjectId` , or `null` if not possible
- `GUID(value)` - Returns `value` converted to `Guid` , or `null` if not possible
- `BOOLEAN(value)` - Returns `value` converted to `Boolean` , or `null` if not possible
- `DATETIME(value, culture)` - Returns `value` converted to `DateTime` in local time according to the specified culture, or `null` if not possible
- `DATETIME_UTC(value, culture)` - Returns `value` converted to `DateTime` in UTC according to the specified culture, or `null` if not possible
- `DATETIME(year, month, day)` - Returns a new `DateTime` at 00h00min00s in local time based on the provided `year` , `month` and `day`
- `DATETIME_UTC(year, month, day)` - Returns a new `DateTime` at 00h00min00s in UTC based on the provided `year` , `month` and `day`
- `IS_MINVALUE(value)` - Returns `true` if `value` is `MinValue` , `false` otherwise
- `IS_MAXVALUE(value)` - Returns `true` if `value` is `MaxValue` , `false` otherwise
- `IS_NULL(value)` - Returns `true` if `value` is `null` , `false` otherwise
- `IS_INT32(value)` - Returns `true` if `value` is `Int32` , `false` otherwise
- `IS_INT64(value)` - Returns `true` if `value` is `Int64` , `false` otherwise
- `IS_DOUBLE(value)` - Returns `true` if `value` is `Double` , `false` otherwise

- `IS_DECIMAL(value)` - Returns `true` if `value` is `Decimal`, `false` otherwise
- `IS_NUMBER(value)` - Returns `true` if `value` is of a numerical type, `false` otherwise
- `IS_STRING(value)` - Returns `true` if `value` is `String`, `false` otherwise
- `IS_DOCUMENT(value)` - Returns `true` if `value` is `BsonDocument`, `false` otherwise
- `IS_arrayAY(value)` - Returns `true` if `value` is `Bsonarrayay`, `false` otherwise
- `IS_BINARY(value)` - Returns `true` if `value` is `BsonBinary`, `false` otherwise
- `IS_OBJECTID(value)` - Returns `true` if `value` is `ObjectId`, `false` otherwise
- `IS_GUID(value)` - Returns `true` if `value` is `Guid`, `false` otherwise
- `IS_BOOLEAN(value)` - Returns `true` if `value` is `Boolean`, `false` otherwise
- `IS_DATETIME(value)` - Returns `true` if `value` is `DateTime`, `false` otherwise

Date Functions

- `YEAR(value)` - Returns the year of `value`, or `null` if it is not a `DateTime`
- `MONTH(value)` - Returns the month of `value`, or `null` if it is not a `DateTime`
- `DAY(value)` - Returns the day of `value`, or `null` if it is not a `DateTime`
- `HOUR(value)` - Returns the hour of `value`, or `null` if it is not a `DateTime`
- `MINUTE(value)` - Returns the minutes of `value`, or `null` if it is not a `DateTime`
- `SECOND(value)` - Returns the seconds of `value`, or `null` if it is not a `DateTime`
- `DATEADD(dateInterval, amount, value)`
  - `dateInterval` is one of the following: `y|year`, `M|month`, `d|day`, `h|hour`, `m|minute`, `s|second`
  - `amount` is the amount of units defined by `dateInterval` to be added to `value`
- DATEDIFF(dateInterval, start, end)
  - `dateInterval` is one of the following: `y|year`, `M|month`, `d|day`, `h|hour`, `m|minute`, `s|second`
  - `start` and `end` are dates
  - The function returns the difference between the dates in units defines by `dateInterval`
- TO_LOCAL(date) - Returns `date` converted to local time, or `null` if is not a `DateTime`

- TO_UTC(date) - Returns `date` converted to UTC, or `null` if is not a `DateTime`

Math Functions

- `ABS(value)` - Returns the absolute value of `value` , or `null` if it is not a numerical value
- `ROUND(value, digits)` - Returns `value` rounded to `digits` of precision, or `null` if it is not a numerical value
- `POW(x, y)` - Returns `x` to the power of `y` (always as a `Double`), or `null` if either of them is not a numerical value

String Functions

- `LOWER(value)` - Returns `value` in lower case, or `null` if it is not a `String`
- `UPPER(value)` - Returns `value` in upper case, or `null` if it is not a `String`
- `LTRIM(value)` - Returns a new string with leading whitespaces removed, or `null` if it is not a `String`
- `RTRIM(value)` - Returns a new string with trailing whitespaces removed, or `null` if it is not a `String`
- `TRIM(value)` - Returns a new string with leading and trailing whitespaces removed, or `null` if it is not a `String`
- `INDEXOF(value, match)` - Returns the zero-based index of the first occurrence of `match` in `value`
- `INDEXOF(value, match, startIndex)` - Returns the zero-based index of the first occurrence of `match` in `value` . The search starts in `startIndex`
- `SUBSTRING(value, startIndex)` - Returns the substring of `value` from `startIndex` to the end
- `SUBSTRING(value, startIndex, length)` - Returns the substring of `value` starting from `startIndex` and with length specified by `length`
- `SUBSTRING(value, oldValue, newValue)` - Returns a new string with occurrences of `oldValue` replaced by `newValue`
- `LPAD(value, totalWidth, paddingChar)` - Returns a new string left-padded to `totalWidth` length with `paddingChar`
- `RPAD(value, totalWidth, paddingChar)` - Returns a new string right-padded to `totalWidth` length with `paddingChar`

- `SPLIT(value, separator)` - Returns an arrayay containing the substrings of `value` split by `separator`
- `FORMAT(value, format)` - Returns the string representation of `value` with the provided format
- `JOIN(array)` - Takes an array of string and returns those strings joined by `,`
- `JOIN(array, separator)` - Takes an array of string and returns those strings joined by `separator`

Misc Functions

- `JSON(value)` - Takes a string representation of a JSON and returns a parsed `BsonValue`
- `EXTEND(source, extend)` - Merges two documents into one, copying their attributes.
- `CONCAT(array1, array2)` - Returns a new array containt the concatenation of `array1` and `array2`
- `KEYS(document)` - Returns an array containing every key in `document`
- `OID_CREATIONTIME(objectId)` - Returns the creation time of `objectId`
- `IIF(predicate, ifTrue, ifFalse)` - Returns `ifTrue` if `predicate` evaluates to `true`, `false` otherwise
- `COALESCE(left, right)` - Returns `left` if it is not `null`, `right` otherwise
- `LENGTH(value)` - Returns the lenght of `value` (if value is `String`, `Binary`, `Array` or `Document`)
- `TOP(values, num)` - Returns the first `num` elements from `values`
- `UNION(array1, array2)` - Returns the set union between `array1` and `array2`
- `EXCEPT(array1, array2)` - Returns the set difference between `array1` and `array2`
- `DISTINCT(array)` - Returns the distinct elements from `array`
- `RANDOM()` - Returns a random `Int32`
- `RANDOM(min, max)` - Returns a random `Int32` between `min` and `max`