/\* CREATE TABLE \*/

CREATE TABLE

{ database\_name.schema\_name.table\_name | schema\_name.table\_name | table\_name }

[ AS FileTable ]

( { <column\_definition>

| <computed\_column\_definition>

| <column\_set\_definition>

| [ <table\_constraint> ] [ ,... n ]

| [ <table\_index> ] }

[ ,... n ]

[ PERIOD FOR SYSTEM\_TIME ( system\_start\_time\_column\_name

, system\_end\_time\_column\_name ) ]

)

[ ON { partition\_scheme\_name ( partition\_column\_name )

| filegroup

| "default" } ]

[ TEXTIMAGE\_ON { filegroup | "default" } ]

[ FILESTREAM\_ON { partition\_scheme\_name

| filegroup

| "default" } ]

[ WITH ( <table\_option> [ ,... n ] ) ]

[ ; ]

<column\_definition> ::=

column\_name <data\_type>

[ FILESTREAM ]

[ COLLATE collation\_name ]

[ SPARSE ]

[ MASKED WITH ( FUNCTION = 'mask\_function' ) ]

[ [ CONSTRAINT constraint\_name ] DEFAULT constant\_expression ]

[ IDENTITY [ ( seed , increment ) ]

[ NOT FOR REPLICATION ]

[ GENERATED ALWAYS AS { ROW | TRANSACTION\_ID | SEQUENCE\_NUMBER } { START | END } [ HIDDEN ] ]

[ [ CONSTRAINT constraint\_name ] {NULL | NOT NULL} ]

[ ROWGUIDCOL ]

[ ENCRYPTED WITH

( COLUMN\_ENCRYPTION\_KEY = key\_name ,

ENCRYPTION\_TYPE = { DETERMINISTIC | RANDOMIZED } ,

ALGORITHM = 'AEAD\_AES\_256\_CBC\_HMAC\_SHA\_256'

) ]

[ <column\_constraint> [ ,... n ] ]

[ <column\_index> ]

<data\_type> ::=

[ type\_schema\_name. ] type\_name

[ ( precision [ , scale ] | max |

[ { CONTENT | DOCUMENT } ] xml\_schema\_collection ) ]

<column\_constraint> ::=

[ CONSTRAINT constraint\_name ]

{

{ PRIMARY KEY | UNIQUE }

[ CLUSTERED | NONCLUSTERED ]

[ ( <column\_name> [ ,... n ] ) ]

[

WITH FILLFACTOR = fillfactor

| WITH ( <index\_option> [ ,... n ] )

]

[ ON { partition\_scheme\_name ( partition\_column\_name )

| filegroup | "default" } ]

| [ FOREIGN KEY ]

REFERENCES [ schema\_name. ] referenced\_table\_name [ ( ref\_column ) ]

[ ON DELETE { NO ACTION | CASCADE | SET NULL | SET DEFAULT } ]

[ ON UPDATE { NO ACTION | CASCADE | SET NULL | SET DEFAULT } ]

[ NOT FOR REPLICATION ]

| CHECK [ NOT FOR REPLICATION ] ( logical\_expression )

}

<column\_index> ::=

INDEX index\_name [ CLUSTERED | NONCLUSTERED ]

[ WITH ( <index\_option> [ ,... n ] ) ]

[ ON { partition\_scheme\_name ( column\_name )

| filegroup\_name

| default

}

]

[ FILESTREAM\_ON { filestream\_filegroup\_name | partition\_scheme\_name | "NULL" } ]

<computed\_column\_definition> ::=

column\_name AS computed\_column\_expression

[ PERSISTED [ NOT NULL ] ]

[

[ CONSTRAINT constraint\_name ]

{ PRIMARY KEY | UNIQUE }

[ CLUSTERED | NONCLUSTERED ]

[

WITH FILLFACTOR = fillfactor

| WITH ( <index\_option> [ ,... n ] )

]

[ ON { partition\_scheme\_name ( partition\_column\_name )

| filegroup | "default" } ]

| [ FOREIGN KEY ]

REFERENCES referenced\_table\_name [ ( ref\_column ) ]

[ ON DELETE { NO ACTION | CASCADE } ]

[ ON UPDATE { NO ACTION } ]

[ NOT FOR REPLICATION ]

| CHECK [ NOT FOR REPLICATION ] ( logical\_expression )

]

<column\_set\_definition> ::=

column\_set\_name XML COLUMN\_SET FOR ALL\_SPARSE\_COLUMNS

<table\_constraint> ::=

[ CONSTRAINT constraint\_name ]

{

{ PRIMARY KEY | UNIQUE }

[ CLUSTERED | NONCLUSTERED ]

( column\_name [ ASC | DESC ] [ ,... n ] )

[

WITH FILLFACTOR = fillfactor

| WITH ( <index\_option> [ ,... n ] )

]

[ ON { partition\_scheme\_name (partition\_column\_name)

| filegroup | "default" } ]

| FOREIGN KEY

( column\_name [ ,... n ] )

REFERENCES referenced\_table\_name [ ( ref\_column [ ,... n ] ) ]

[ ON DELETE { NO ACTION | CASCADE | SET NULL | SET DEFAULT } ]

[ ON UPDATE { NO ACTION | CASCADE | SET NULL | SET DEFAULT } ]

[ NOT FOR REPLICATION ]

| CHECK [ NOT FOR REPLICATION ] ( logical\_expression )

<table\_index> ::=

{

{

INDEX index\_name [ UNIQUE ] [ CLUSTERED | NONCLUSTERED ]

( column\_name [ ASC | DESC ] [ ,... n ] )

| INDEX index\_name CLUSTERED COLUMNSTORE

| INDEX index\_name [ NONCLUSTERED ] COLUMNSTORE ( column\_name [ ,... n ] )

}

[ WHERE <filter\_predicate> ]

[ WITH ( <index\_option> [ ,... n ] ) ]

[ ON { partition\_scheme\_name ( column\_name )

| filegroup\_name

| default

}

]

[ FILESTREAM\_ON { filestream\_filegroup\_name | partition\_scheme\_name | "NULL" } ]

}

<table\_option> ::=

{

[ DATA\_COMPRESSION = { NONE | ROW | PAGE }

[ ON PARTITIONS ( { <partition\_number\_expression> | <range> }

[ ,... n ] ) ] ]

[ XML\_COMPRESSION = { ON | OFF }

[ ON PARTITIONS ( { <partition\_number\_expression> | <range> }

[ ,... n ] ) ] ]

[ FILETABLE\_DIRECTORY = <directory\_name> ]

[ FILETABLE\_COLLATE\_FILENAME = { <collation\_name> | database\_default } ]

[ FILETABLE\_PRIMARY\_KEY\_CONSTRAINT\_NAME = <constraint\_name> ]

[ FILETABLE\_STREAMID\_UNIQUE\_CONSTRAINT\_NAME = <constraint\_name> ]

[ FILETABLE\_FULLPATH\_UNIQUE\_CONSTRAINT\_NAME = <constraint\_name> ]

[ SYSTEM\_VERSIONING = ON

[ ( HISTORY\_TABLE = schema\_name.history\_table\_name

[ , DATA\_CONSISTENCY\_CHECK = { ON | OFF } ]

) ]

]

[ REMOTE\_DATA\_ARCHIVE =

{

ON [ ( <table\_stretch\_options> [ ,... n] ) ]

| OFF ( MIGRATION\_STATE = PAUSED )

}

]

[ DATA\_DELETION = ON

{ (

FILTER\_COLUMN = column\_name,

RETENTION\_PERIOD = { INFINITE | number { DAY | DAYS | WEEK | WEEKS

| MONTH | MONTHS | YEAR | YEARS }

) }

]

[ LEDGER = ON [ ( <ledger\_option> [ ,... n ] ) ]

| OFF

]

}

<ledger\_option> ::=

{

[ LEDGER\_VIEW = schema\_name.ledger\_view\_name [ ( <ledger\_view\_option> [ ,... n ] ) ]

[ APPEND\_ONLY = ON | OFF ]

}

<ledger\_view\_option> ::=

{

[ TRANSACTION\_ID\_COLUMN\_NAME = transaction\_id\_column\_name ]

[ SEQUENCE\_NUMBER\_COLUMN\_NAME = sequence\_number\_column\_name ]

[ OPERATION\_TYPE\_COLUMN\_NAME = operation\_type\_id column\_name ]

[ OPERATION\_TYPE\_DESC\_COLUMN\_NAME = operation\_type\_desc\_column\_name ]

}

<table\_stretch\_options> ::=

{

[ FILTER\_PREDICATE = { NULL | table\_predicate\_function } , ]

MIGRATION\_STATE = { OUTBOUND | INBOUND | PAUSED }

}

<index\_option> ::=

{

PAD\_INDEX = { ON | OFF }

| FILLFACTOR = fillfactor

| IGNORE\_DUP\_KEY = { ON | OFF }

| STATISTICS\_NORECOMPUTE = { ON | OFF }

| STATISTICS\_INCREMENTAL = { ON | OFF }

| ALLOW\_ROW\_LOCKS = { ON | OFF }

| ALLOW\_PAGE\_LOCKS = { ON | OFF }

| OPTIMIZE\_FOR\_SEQUENTIAL\_KEY = { ON | OFF }

| COMPRESSION\_DELAY = { 0 | delay [ Minutes ] }

| DATA\_COMPRESSION = { NONE | ROW | PAGE | COLUMNSTORE | COLUMNSTORE\_ARCHIVE }

[ ON PARTITIONS ( { <partition\_number\_expression> | <range> }

[ ,... n ] ) ]

| XML\_COMPRESSION = { ON | OFF }

[ ON PARTITIONS ( { <partition\_number\_expression> | <range> }

[ ,... n ] ) ] ]

}

<range> ::=

<partition\_number\_expression> TO <partition\_number\_expression>

/\* INSERT INTO TABLE \*/

[ WITH <common\_table\_expression> [ ,...n ] ]

INSERT

{

[ TOP ( expression ) [ PERCENT ] ]

[ INTO ]

{ <object> | rowset\_function\_limited

[ WITH ( <Table\_Hint\_Limited> [ ...n ] ) ]

}

{

[ ( column\_list ) ]

[ <OUTPUT Clause> ]

{ VALUES ( { DEFAULT | NULL | expression } [ ,...n ] ) [ ,...n ]

| derived\_table

| execute\_statement

| <dml\_table\_source>

| DEFAULT VALUES

}

}

}

[;]

<object> ::=

{

[ server\_name . database\_name . schema\_name .

| database\_name .[ schema\_name ] .

| schema\_name .

]

table\_or\_view\_name

}

<dml\_table\_source> ::=

SELECT <select\_list>

FROM ( <dml\_statement\_with\_output\_clause> )

[AS] table\_alias [ ( column\_alias [ ,...n ] ) ]

[ WHERE <search\_condition> ]

[ OPTION ( <query\_hint> [ ,...n ] ) ]