Appendix C SQL Statement Syntax

SQL Statements

This excerpt from the Oracle Database SQL Quick Reference guide presents the syntax for Oracle SQL statements. SQL statements are the means by which programs and users access data in an Oracle database.

Table 1 shows each SQL statement and its related syntax. Table 2 shows the syntax of the subclauses found in the table 1.

See Also: Oracle Database SQL Reference for detailed information about Oracle SQL

Table 1: Syntax for SQL Statements

SQL Statement	Syntax
ALTER CLUSTER	ALTER CLUSTER [schema.]cluster { physical_attributes_clause
ALTER DATABASE	ALTER DATABASE [database] { startup_clauses recovery_clauses database_file_clauses logfile_clauses controlfile_clauses standby_database_clauses default_settings_clauses redo_thread_clauses security_clause } ;
ALTER DIMENSION	ALTER DIMENSION [schema.] dimension { ADD

```
SQL Statement
                            Syntax
                                    level clause
                                    hierarchy clause
                                    attribute clause
                                    extended attribute clause
                                ] . . .
                               DROP
                                { LEVEL level
                                     [ RESTRICT | CASCADE ]
                                  HIERARCHY hierarchy
                                 | ATTRIBUTE attribute
                                     [ LEVEL level [ COLUMN column
                                                     [, COLUMN column ]...]
                                 [ DROP
                                   { LEVEL level
                                       [ RESTRICT | CASCADE ]
                                   | HIERARCHY hierarchy
                                   | ATTRIBUTE attribute
                                       [ LEVEL level [ COLUMN column
                                                      [, COLUMN column ]...]
                                ] . . .
                                COMPILE
                            ALTER DISKGROUP
ALTER DISKGROUP
                              { disk clauses | diskgroup clauses }
                                 [ { disk clauses | diskgroup clauses } ]...;
                            ALTER FUNCTION [ schema. ] function
ALTER FUNCTION
                              COMPILE [ DEBUG ]
                               [ compiler parameters clause
                                 [ compiler parameters clause ] ... ]
                               [ REUSE SETTINGS ] ;
                            ALTER INDEX [ schema. ] index
ALTER INDEX
                               { { deallocate unused clause
                                   allocate_extent_clause
                                   shrink clause
                                  parallel clause
                                  physical attributes clause
                                  logging clause
                                   [ deallocate unused clause
                                    allocate extent clause
                                    shrink clause
                                    parallel clause
                                    physical attributes clause
                                    logging clause
                                rebuild clause
                                PARAMETERS ('ODCI_parameters')
```

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```
SQL Statement
                            Syntax
                                { ENABLE | DISABLE }
                                UNUSABLE
                                RENAME TO new name
                                COALESCE
                                { MONITORING | NOMONITORING } USAGE
                                UPDATE BLOCK REFERENCES
                                alter index partitioning
                            ALTER INDEXTYPE [ schema. ] indextype
ALTER INDEXTYPE
                              { ADD | DROP }
                                [ schema. ] operator (parameter types)
                                  [, { ADD | DROP }
                                       [ schema. ] operator (parameter types)
                                [ using type clause ]
                               COMPILE
                              } ;
ALTER JAVA
                            ALTER JAVA
                              { SOURCE | CLASS } [ schema. ] object name
                                   ( ( match_string [, ] { schema_name | - } )
                                     [ ( match_string [, ] { schema_name | - } )
                                    ] . . .
                              { { COMPILE | RESOLVE }
                              | invoker_rights clause
                            ALTER MATERIALIZED VIEW
ALTER MATERIALIZED VIEW
                              [ schema. ] (materialized view)
                              [ physical attributes clause
                               | table compression
                              | LOB storage clause
                                [, LOB storage clause ]...
                              modify LOB storage clause
                                [, modify_LOB_storage_clause]...
                                alter_table_partitioning
                                parallel clause
                                logging clause
                                allocate extent clause
                                shrink clause
                               { CACHE | NOCACHE }
                              [ alter iot clauses ]
                              [ USING INDEX physical attributes clause ]
                              [ MODIFY scoped table ref constraint
                              alter mv refresh
                              [ { ENABLE | DISABLE } QUERY REWRITE
                                COMPILE
```

```
SQL Statement
                            Syntax
                               | CONSIDER FRESH
                              ] ;
ALTER MATERIALIZED VIEW
                            ALTER MATERIALIZED VIEW LOG [ FORCE ]
LOG
                              ON [ schema. ]table
                               [ physical_attributes_clause
                                alter_table_partitioning
                                parallel clause
                                logging clause
                                allocate extent clause
                                shrink clause
                                { CACHE | NOCACHE }
                              [ ADD
                                  { OBJECT ID
                                      PRIMARY KEY
                                      ROWID
                                     SEQUENCE
                                     [ (column [, column ]...) ]
                                    (column [, column ]...)
                                     [, { { OBJECT ID
                                           PRIMARY KEY
                                           ROWID
                                           SEQUENCE
                                          [ (column [, column ]...) ]
                                         (column [, column ]...)
                                    ] . . .
                                   [ new values clause ]
                              ] ;
                            ALTER OPERATOR [ schema. ] operator
ALTER OPERATOR
                                add binding clause
                                drop binding clause
                                COMPILE
                               } ;
ALTER OUTLINE
                            ALTER OUTLINE
                               [ PUBLIC | PRIVATE ] outline
                               { REBUILD
                               RENAME TO new outline name
                                CHANGE CATEGORY TO new_category_name
                                { ENABLE | DISABLE }
                                [ REBUILD
                                 RENAME TO new_outline_name
                                 | CHANGE CATEGORY TO new_category_name
                                | { ENABLE | DISABLE }
                                ] . . . ;
```

```
SQL Statement
                            Syntax
ALTER PACKAGE
                            ALTER PACKAGE [ schema. ] package
                              COMPILE [ DEBUG ]
                              [ PACKAGE | SPECIFICATION | BODY ]
                              [ compiler parameters clause
                                [ compiler_parameters_clause ] ... ]
                              [ REUSE SETTINGS ] ;
                            ALTER PROCEDURE [ schema. ] procedure
ALTER PROCEDURE
                              COMPILE [ DEBUG ]
                              [ compiler parameters clause
                                [ compiler parameters clause ] ... ]
                              [ REUSE SETTINGS ] ;
ALTER PROFILE
                            ALTER PROFILE profile LIMIT
                              { resource parameters | password parameters }
                                [ resource parameters | password parameters
                                ] . . . ;
ALTER RESOURCE COST
                            ALTER RESOURCE COST
                               { CPU PER SESSION
                                CONNECT TIME
                                LOGICAL READS PER SESSION
                                PRIVATE SGA
                              integer
                                [ { CPU PER SESSION
                                    CONNECT TIME
                                    LOGICAL READS_PER_SESSION
                                    PRIVATE SGA
                                  integer
                                ] ...;
ALTER ROLE
                            ALTER ROLE role
                               { NOT IDENTIFIED
                                IDENTIFIED
                                  { BY password
                                    USING [ schema. ] package
                                    EXTERNALLY
                                   GLOBALLY
                              } ;
                            ALTER ROLLBACK SEGMENT rollback segment
ALTER ROLEBACK SEGMENT
                              { ONLINE
                                OFFLINE
                                storage clause
                                SHRINK [ TO integer [ K | M ] ]
```

```
SQL Statement
                            Syntax
ALTER SEQUENCE
                            ALTER SEQUENCE [ schema. ] sequence
                              { INCREMENT BY integer
                                { MAXVALUE integer | NOMAXVALUE }
                                { MINVALUE integer | NOMINVALUE }
                                { CYCLE | NOCYCLE }
                                { CACHE integer | NOCACHE }
                                { ORDER | NOORDER }
                                [ INCREMENT BY integer
                                 { MAXVALUE integer | NOMAXVALUE }
                                  { MINVALUE integer | NOMINVALUE }
                                  { CYCLE | NOCYCLE }
                                  { CACHE integer | NOCACHE }
                                  { ORDER | NOORDER }
                                ] . . . ;
                            ALTER SESSION
ALTER SESSION
                               { ADVISE { COMMIT | ROLLBACK | NOTHING }
                                CLOSE DATABASE LINK dblink
                                { ENABLE | DISABLE } COMMIT IN PROCEDURE
                                { ENABLE | DISABLE } GUARD
                                { ENABLE | DISABLE | FORCE } PARALLEL
                                { DML | DDL | QUERY } [ PARALLEL integer ]
                              | { ENABLE RESUMABLE
                                  [ TIMEOUT integer ] [ NAME string ]
                                 DISABLE RESUMABLE
                                alter session set clause
ALTER SYSTEM
                            ALTER SYSTEM
                                archive log clause
                                checkpoint clause
                                check datafiles clause
                                DUMP ACTIVE SESSION HISTORY [ MINUTES integer ]
                                distributed recov clauses
                                restricted session clauses
                                FLUSH { SHARED_POOL | BUFFER_CACHE }
                                end session clauses
                                SWITCH LOGFILE
                                { SUSPEND | RESUME }
                                quiesce clauses
                                shutdown dispatcher_clause
                                REGISTER
                                SET alter system set clause
                                    [ alter system set clause ]...
                                RESET alter system reset clause
                                      [ alter system reset clause ]...
                              } ;
ALTER TABLE
                            ALTER TABLE [ schema. ]table
                              [ alter table properties
                               | column clauses
```

```
SQL Statement
                            Syntax
                                constraint clauses
                                alter table partitioning
                                alter external table clauses
                                move table clause
                              [ enable disable clause
                               { ENABLE | DISABLE }
                                { TABLE LOCK | ALL TRIGGERS }
                                [ enable disable clause
                                | { ENABLE | DISABLE }
                                  { TABLE LOCK | ALL TRIGGERS }
                              ] ;
ALTER TABLESPACE
                            ALTER TABLESPACE tablespace
                              { DEFAULT
                                  [ table compression ] storage clause
                                MINIMUM EXTENT integer [ K | M ]
                                RESIZE size clause
                                COALESCE
                                RENAME TO new tablespace name
                                { BEGIN | END } BACKUP
                                datafile tempfile clauses
                                tablespace logging clauses
                                tablespace group clause
                                tablespace state clauses
                                autoextend clause
                                flashback mode clause
                                tablespace retention clause
ALTER TRIGGER
                            ALTER TRIGGER [ schema. ] trigger
                               ENABLE
                                DISABLE
                                RENAME TO new name
                                COMPILE [ DEBUG ]
                                  [ compiler parameters clause
                                     [ compiler parameters clause ] ... ]
                                  [ REUSE SETTINGS ]
                              } ;
                            ALTER TYPE [ schema. ] type
ALTER TYPE
                              { compile_type_clause
                                replace type clause
                               { alter method spec
                                  alter attribute definition
                                  alter collection clauses
                                  [ NOT ] { INSTANTIABLE | FINAL }
                                [ dependent handling clause ]
                              } ;
```

```
SQL Statement
                            Syntax
ALTER USER
                            ALTER USER
                              { user
                                { IDENTIFIED
                                  { BY password [ REPLACE old password ]
                                    EXTERNALLY
                                    GLOBALLY AS 'external name'
                                  DEFAULT TABLESPACE tablespace
                                  TEMPORARY TABLESPACE
                                     { tablespace | tablespace group name }
                                | QUOTA { integer [ K | M ]
                                         UNLIMITED
                                        } ON tablespace
                                  [ QUOTA { integer [ K | M ]
                                           UNLIMITED
                                          } ON tablespace
                                  1...
                                  PROFILE profile
                                  DEFAULT ROLE { role [, role ]...
                                                 ALL [ EXCEPT
                                                        role [, role ]... ]
                                                 NONE
                                  PASSWORD EXPIRE
                                  ACCOUNT { LOCK | UNLOCK }
                                  [ { IDENTIFIED
                                        { BY password [ REPLACE old_password ]
                                         EXTERNALLY
                                         GLOBALLY AS 'external name'
                                      DEFAULT TABLESPACE tablespace
                                       TEMPORARY TABLESPACE
                                          { tablespace | tablespace group name }
                                     | QUOTA { integer [ K | M ]
                                              UNLIMITED
                                             } ON tablespace
                                       [ QUOTA { integer [ K | M ]
                                                UNLIMITED
                                               } ON tablespace
                                       ] . . .
                                       PROFILE profile
                                      DEFAULT ROLE { role [, role ]...
                                                     ALL [ EXCEPT
                                                              role [, role ]... ]
                                                      NONE
                                       PASSWORD EXPIRE
                                       ACCOUNT { LOCK | UNLOCK }
                              user [, user ]... proxy clause ;
```

```
SQL Statement
                            Syntax
ALTER VIEW
                            ALTER VIEW [ schema. ] view
                              { ADD out of line constraint
                               | MODIFY CONSTRAINT constraint
                                  { RELY | NORELY }
                              DROP { CONSTRAINT constraint
                                       PRIMARY KEY
                                       UNIQUE (column [, column ]...)
                                COMPILE
                            ANALYZE
ANALYZE
                              { TABLE [ schema. ]table
                                  [ PARTITION (partition)
                                  | SUBPARTITION (subpartition)
                               | INDEX [ schema. ]index
                                  [ PARTITION (partition)
                                  | SUBPARTITION (subpartition)
                                CLUSTER [ schema. ] cluster
                                validation clauses
                                LIST CHAINED ROWS [ into_clause ]
                                DELETE [ SYSTEM ] STATISTICS
                                compute statistics clause
                                estimate statistics clause
                            ASSOCIATE STATISTICS WITH
ASSOCIATE STATISTICS
                              { column association | function association } ;
                            AUDIT
AUDIT
                              { sql_statement_clause | schema_object_clause }
                              [ BY { SESSION | ACCESS } ]
                              [ WHENEVER [ NOT ] SUCCESSFUL ] ;
CALL
                            CALL
                              { routine clause
                                object_access_expression
                              [ INTO :host variable
                                [ [ INDICATOR ] :indicator variable ] ] ;
COMMENT
                            COMMENT ON
                              { TABLE [ schema. ]
                                { table | view }
                               COLUMN [ schema. ]
                                { table. | view. | materialized_view. } column
                                OPERATOR [ schema. ] operator
                                INDEXTYPE [ schema. ] indextype
```

```
SQL Statement
                            Syntax
                                MATERIALIZED VIEW materialized view
                              IS 'text';
                            COMMIT [ WORK ]
COMMIT
                              [ COMMENT 'text'
                              | FORCE 'text' [, integer ]
                              ];
                            CREATE CLUSTER [ schema. ] cluster
CREATE CLUSTER
                              (column datatype [ SORT ]
                                [, column datatype [ SORT ] ]...
                              [ { physical attributes clause
                                 SIZE size clause
                                 TABLESPACE tablespace
                                 | { INDEX
                                   [ SINGLE TABLE ]
                                    HASHKEYS integer [ HASH IS expr ]
                                   [ physical attributes clause
                                   SIZE size clause
                                   TABLESPACE tablespace
                                   | { INDEX
                                    | [ SINGLE TABLE ]
                                      HASHKEYS integer [ HASH IS expr ]
                                  ] . . .
                              [ parallel clause ]
                              [ NOROWDEPENDENCIES | ROWDEPENDENCIES ]
                              [ CACHE | NOCACHE ] ;
                            CREATE [ OR REPLACE ] CONTEXT namespace
CREATE CONTEXT
                              USING [ schema. ] package
                              [ INITIALIZED { EXTERNALLY | GLOBALLY }
                              ACCESSED GLOBALLY
                              ] ;
                            CREATE CONTROLFILE
CREATE CONTROLFILE
                              [ REUSE ]
                              [ SET ]
                              DATABASE database
                              [ logfile clause ]
                              { RESETLOGS | NORESETLOGS }
                              [ DATAFILE file specification
                                         [, file specification ]... ]
                              [ { MAXLOGFILES integer
                                  MAXLOGMEMBERS integer
                                  MAXLOGHISTORY integer
```

```
SQL Statement
                            Syntax
                                  MAXDATAFILES integer
                                  MAXINSTANCES integer
                                  { ARCHIVELOG | NOARCHIVELOG }
                                  FORCE LOGGING
                                  [ MAXLOGFILES integer
                                    MAXLOGMEMBERS integer
                                    MAXLOGHISTORY integer
                                   MAXDATAFILES integer
                                   MAXINSTANCES integer
                                   { ARCHIVELOG | NOARCHIVELOG }
                                   FORCE LOGGING
                              [ character set clause ] ;
CREATE DATABASE
                            CREATE DATABASE [ database ]
                              { USER SYS IDENTIFIED BY password
                                USER SYSTEM IDENTIFIED BY password
                                CONTROLFILE REUSE
                                MAXDATAFILES integer
                                MAXINSTANCES integer
                               CHARACTER SET charset
                                NATIONAL CHARACTER SET charset
                                SET DEFAULT
                                 { BIGFILE | SMALLFILE } TABLESPACE
                                database logging clauses
                                tablespace clauses
                                set time zone clause
                            CREATE [ SHARED ] [ PUBLIC ] DATABASE LINK dblink
CREATE DATABASE LINK
                              [ CONNECT TO
                                { CURRENT USER
                                user IDENTIFIED BY password
                                  [ dblink authentication ]
                              | dblink_authentication
                              [ USING 'connect string' ] ;
CREATE DIMENSION
                            CREATE DIMENSION [ schema. ] dimension
                              level clause
                              [ level clause ]...
                              { hierarchy clause
                                attribute clause
                                extended attribute clause
                                [ hierarchy_clause
                                attribute_clause
                                extended attribute clause
                                ] . . . ;
```

```
SQL Statement
                            Syntax
CREATE DIRECTORY
                            CREATE [ OR REPLACE ] DIRECTORY directory
                              AS 'path name';
CREATE DISKGROUP
                            CREATE DISKGROUP diskgroup name
                               [ { HIGH | NORMAL | EXTERNAL } REDUNDANCY ]
                               [ FAILGROUP failgroup name ]
                              DISK qualified disk clause
                                    [, qualified disk clause ]...
                                 [ [ FAILGROUP failgroup name ]
                                  DISK qualified disk clause
                                        [, qualified disk clause ]...
                                ] . . . ;
CREATE FUNCTION
                            CREATE [ OR REPLACE ] FUNCTION [ schema. ] function
                               [ (argument [ IN | OUT | IN OUT ]
                                  [ NOCOPY ] datatype
                                    [, argument [ IN | OUT | IN OUT ]
                                       [ NOCOPY ] datatype
                                    ] . . .
                                )
                              RETURN datatype
                               [ { invoker rights clause
                                  DETERMINISTIC
                                  parallel enable clause
                                   [ invoker rights clause
                                   DETERMINISTIC
                                   | parallel enable clause
                               { { AGGREGATE | PIPELINED }
                                USING [ schema. ]implementation type
                               | [ PIPELINED ]
                                 { IS | AS }
                                 { pl/sql function body | call spec }
                            CREATE [ UNIQUE | BITMAP ] INDEX [ schema. ]index
CREATE INDEX
                              ON { cluster_index clause
                                   table index clause
                                   bitmap join index clause
CREATE INDEXTYPE
                            CREATE [ OR REPLACE ] INDEXTYPE
                               [ schema. ]indextype FOR
                               [ schema. ]operator (paramater_type
                                                    [, paramater type ]...)
                                 [, [ schema. ]operator (paramater_type
                                                         [, paramater type ]...)
                                ] . . .
                              using type clause ;
```

```
SQL Statement
                            Syntax
CREATE JAVA
                            CREATE [ OR REPLACE ]
                              [ AND { RESOLVE | COMPILE } ]
                              [ NOFORCE ]
                              JAVA { { SOURCE | RESOURCE }
                                     NAMED [ schema. ] primary name
                                    CLASS [ SCHEMA schema ]
                               [ invoker rights clause ]
                               [ RESOLVER
                                 ((match string [,] { schema name | - })
                                   [ (match_string [,] { schema_name | - }) ]...
                              { USING { BFILE (directory object name ,
                                                server file name)
                                       | { CLOB | BLOB | BFILE }
                                         subquery
                                        'key for BLOB'
                                AS source text
                            CREATE [ OR REPLACE ] LIBRARY [ schema. ]libname
CREATE LIBRARY
                              { IS | AS } 'filename' [ AGENT 'agent dblink' ] ;
CREATE MATERIALIZED VIEW
                            CREATE MATERIALIZED VIEW
                              [ schema. ] materialized view
                               [ OF [ schema. ]object type ]
                              [ (scoped table ref constraint) ]
                              { ON PREBUILT TABLE
                                 [ { WITH | WITHOUT } REDUCED PRECISION ]
                                physical properties materialized view props
                               [ USING INDEX
                                [ physical attributes clause
                                 | TABLESPACE tablespace
                                   [ physical attributes clause
                                   | TABLESPACE tablespace
                                  ] . . .
                              USING NO INDEX
                              [ create mv refresh ]
                              [ FOR UPDATE ]
                              [ { DISABLE | ENABLE }
                                QUERY REWRITE
                              AS subquery ;
CREATE MATERIALIZED VIEW
                            CREATE MATERIALIZED VIEW LOG
                              ON [ schema. ] table
                               [ physical attributes clause
                                TABLESPACE tablespace
```

```
SQL Statement
                            Syntax
                                logging clause
                               | { CACHE | NOCACHE }
                                 [ physical attributes clause
                                 | TABLESPACE tablespace
                                 logging clause
                                 { CACHE | NOCACHE }
                                ] . . .
                              1
                               [ parallel clause ]
                               [ table partitioning clauses ]
                               [ WITH { OBJECT ID
                                       PRIMARY KEY
                                        ROWID
                                        SEQUENCE
                                       (column [, column ]...)
                                        [, { OBJECT ID
                                            PRIMARY KEY
                                           ROWID
                                            SEQUENCE
                                            (column [, column ]...)
                                        ] . . .
                                [ new values clause ]
                              ] ;
CREATE OPERATOR
                            CREATE [ OR REPLACE ] OPERATOR
                                [ schema. ] operator binding clause ;
CREATE OUTLINE
                            CREATE [ OR REPLACE ]
                               [ PUBLIC | PRIVATE ] OUTLINE [ outline ]
                               [ FROM [ PUBLIC | PRIVATE ] source outline ]
                               [ FOR CATEGORY category ]
                                [ ON statement ] ;
CREATE PACKAGE
                            CREATE [ OR REPLACE ] PACKAGE [ schema. ] package
                                [ invoker rights clause ]
                                { IS | AS } pl/sql package spec ;
CREATE PACKAGE BODY
                            CREATE [ OR REPLACE ] PACKAGE BODY
                                [ schema. ] package
                                { IS | AS } pl/sql package body ;
CREATE PFILE
                            CREATE PFILE [= 'pfile name' ]
                               FROM SPFILE [= 'spfile name'] ;
CREATE PROCEDURE
                            CREATE [ OR REPLACE ] PROCEDURE [ schema. ] procedure
                                [ (argument [ IN | OUT | IN OUT ]
                                            [ NOCOPY ]
                                            datatype
                                    [, argument [ IN \mid OUT \mid IN OUT ]
                                                [ NOCOPY ]
```

```
SQL Statement
                            Syntax
                                                datatype
                                   ] . . .
                               1
                               [ invoker rights clause ]
                                { IS | AS }
                                { pl/sql subprogram body | call spec } ;
                            CREATE PROFILE profile
CREATE PROFILE
                               LIMIT { resource parameters
                                       password parameters
                                        [ resource parameters
                                        | password parameters
CREATE ROLE
                            CREATE ROLE role
                                [ NOT IDENTIFIED
                                | IDENTIFIED { BY password
                                              USING [ schema. ] package
                                              EXTERNALLY
                                               GLOBALLY
                               ] ;
                            CREATE [ PUBLIC ] ROLLBACK SEGMENT rollback_segment
CREATE ROLEBACK SEGMENT
                               [ { TABLESPACE tablespace | storage clause }
                                   [ TABLESPACE tablespace | storage clause ]...
                              ];
CREATE SCHEMA
                            CREATE SCHEMA AUTHORIZATION schema
                                { create table statement
                                create_view_statement
                                 grant_statement
                                  [ create table statement
                                  create view statement
                                  | grant statement
                                 1...;
                            CREATE SEQUENCE [ schema. ] sequence
CREATE SEQUENCE
                                [ { INCREMENT BY | START WITH } integer
                                   MAXVALUE integer | NOMAXVALUE }
                                  \{ MINVALUE integer | NOMINVALUE \}
                                  { CYCLE | NOCYCLE }
                                  { CACHE integer | NOCACHE }
                                  { ORDER | NOORDER }
                                  [ { INCREMENT BY | START WITH } integer
                                    { MAXVALUE integer | NOMAXVALUE }
                                    { MINVALUE integer | NOMINVALUE }
                                   { CYCLE | NOCYCLE }
```

```
SQL Statement
                            Syntax
                                  { CACHE integer | NOCACHE }
                                  | { ORDER | NOORDER }
                                 ] . . . ;
                            CREATE SPFILE [= 'spfile name' ]
CREATE SPFILE
                              FROM PFILE [= 'pfile name' ] ;
CREATE SYNONYM
                            CREATE [ OR REPLACE ] [ PUBLIC ] SYNONYM
                               [ schema. ]synonym
                               FOR [ schema. ] object [ @ dblink ] ;
CREATE TABLE
                            { relational table | object table | XMLType table }
CREATE TABLESPACE
                            CREATE
                               [ BIGFILE | SMALLFILE ]
                               { permanent tablespace clause
                                | temporary tablespace clause
                                undo tablespace clause
                            CREATE [ OR REPLACE ] TRIGGER [ schema. ]trigger
CREATE TRIGGER
                               { BEFORE | AFTER | INSTEAD OF }
                                { dml event clause
                               | { ddl event [ OR ddl event ]...
                                  database event [ OR database event ]...
                                 ON { [ schema. ] SCHEMA
                                     DATABASE
                               [ WHEN (condition) ]
                               { pl/sql_block | call_procedure_statement } ;
                            { create incomplete type
CREATE TYPE
                             create object type
                             create varray type
                            create nested table type
CREATE TYPE BODY
                            CREATE [ OR REPLACE ] TYPE BODY [ schema. ] type name
                               { IS | AS }
                               { subprogram declaration
                                map order func declaration
                                 [; { subprogram_declaration
                                     map order func declaration
                                 ] . . .
                               END ;
```

```
SQL Statement
                             Syntax
CREATE USER
                             CREATE USER user
                                IDENTIFIED { BY password
                                             EXTERNALLY
                                             GLOBALLY AS 'external name'
                                [ DEFAULT TABLESPACE tablespace
                                 TEMPORARY TABLESPACE
                                     { tablespace | tablespace_group_name }
                                | QUOTA { integer [ K | M ]
                                         UNLIMITED
                                        ON tablespace
                                  [ QUOTA { integer [ K | M ]
                                            UNLIMITED
                                          ON tablespace
                                  1...
                                 PROFILE profile
                                 PASSWORD EXPIRE
                                 ACCOUNT { LOCK | UNLOCK }
                                  [ DEFAULT TABLESPACE tablespace
                                  | TEMPORARY TABLESPACE
                                       { tablespace | tablespace group name }
                                  | QUOTA { integer [ K | M ]
                                            UNLIMITED
                                          ON tablespace
                                    [ QUOTA { integer [ K | M ]
                                              UNLIMITED
                                            ON tablespace
                                    ] . . .
                                   PROFILE profile
                                   PASSWORD EXPIRE
                                  | ACCOUNT { LOCK | UNLOCK }
                                  ] . . .
                               ] ;
CREATE VIEW
                             CREATE [ OR REPLACE ] [ [ NO ] FORCE ] VIEW
                                [ schema. ] view
                                [ (alias [ inline constraint
                                           [ inline constraint ]... ]
                                  | out of line_constraint
                                    [, alias [ inline constraint
                                                [ inline constraint ]... ]
                                    | out of line constraint
                                    ] . . .
                                  )
                                | object view clause
                                | XMLType view clause
                                AS subquery [ subquery restriction clause ] ;
```

```
SQL Statement
                            Syntax
                            DELETE [ hint ]
DELETE
                               [ FROM ]
                               { dml table expression clause
                                ONLY (dml table expression clause)
                               [talias]
                               [ where clause ]
                               [ returning clause ] ;
                            DISASSOCIATE STATISTICS FROM
DISASSOCIATE STATISTICS
                               { COLUMNS [ schema. ]table.column
                                           [, [schema.]table.column]...
                               | FUNCTIONS [ schema. ] function
                                             [, [ schema. ] function ]...
                               | PACKAGES [ schema. ]package
                                            [, [schema.]package]...
                               | TYPES [ schema. ]type
                                         [, [ schema. ]type ]...
                               | INDEXES [ schema. ]index
                                           [, [ schema. ]index ]...
                                 INDEXTYPES [ schema. ]indextype
                                              [, [ schema. ]indextype ]...
                               [ FORCE ] ;
DROP CLUSTER
                            DROP CLUSTER [ schema. ] cluster
                               [ INCLUDING TABLES [ CASCADE CONSTRAINTS ] ] ;
DROP CONTEXT
                            DROP CONTEXT namespace ;
DROP DATABASE
                            DROP DATABASE ;
DROP DATABASE LINK
                            DROP [ PUBLIC ] DATABASE LINK dblink ;
DROP DIMENSION
                            DROP DIMENSION [ schema. ] dimension ;
DROP DIRECTORY
                            DROP DIRECTORY directory name ;
DROP DISKGROUP
                            DROP DISKGROUP diskgroup name
                               [ { INCLUDING | EXCLUDING }
                                 CONTENTS
                               1 ;
DROP FUNCTION
                            DROP FUNCTION [ schema. ] function name ;
DROP INDEX
                            DROP INDEX [ schema. ] index [ FORCE ] ;
```

SQL Statement	Syntax
DROP INDEXTYPE	DROP INDEXTYPE [schema.]indextype [FORCE] ;
DROP JAVA	DROP JAVA { SOURCE CLASS RESOURCE } [schema.] object_name ;
DROP LIBRARY	DROP LIBRARY library_name ;
DROP MATERIALIZED VIEW	DROP MATERIALIZED VIEW [schema.]materialized_view [PRESERVE TABLE] ;
DROP MATERIALIZED VIEW LOG	DROP MATERIALIZED VIEW LOG ON [schema.]table ;
DROP OPERATOR	DROP OPERATOR [schema.]operator [FORCE] ;
DROP OUTLINE	DROP OUTLINE outline ;
DROP PACKAGE	DROP PACKAGE [BODY] [schema.]package ;
DROP PROCEDURE	DROP PROCEDURE [schema.]procedure ;
DROP PROFILE	DROP PROFILE profile [CASCADE] ;
DROP ROLE	DROP ROLE role ;
DROP ROLLBACK SEGMENT	DROP ROLLBACK SEGMENT rollback_segment ;
DROP SEQUENCE	DROP SEQUENCE [schema.] sequence_name ;
DROP SYNONYM	DROP [PUBLIC] SYNONYM [schema.]synonym [FORCE] ;
DROP TABLE	DROP TABLE [schema.]table [CASCADE CONSTRAINTS] [PURGE] ;
DROP TABLESPACE	DROP TABLESPACE tablespace [INCLUDING CONTENTS [AND DATAFILES]
DROP TRIGGER	DROP TRIGGER [schema.]trigger ;

```
SQL Statement
                            Syntax
                            DROP TYPE [ schema. ]type_name
DROP TYPE
                               [ FORCE | VALIDATE ] ;
DROP TYPE BODY
                            DROP TYPE BODY [ schema. ]type_name ;
DROP USER
                            DROP USER user [ CASCADE ] ;
DROP VIEW
                            DROP VIEW [ schema. ] view
                               [ CASCADE CONSTRAINTS ] ;
                            EXPLAIN PLAN
EXPLAIN PLAN
                               [ SET STATEMENT ID = 'text' ]
                               [ INTO [ schema. ]table [ @ dblink ] ]
                               FOR statement ;
                            FLASHBACK [ STANDBY ] DATABASE [ database ]
FLASHBACK DATABASE
                               { TO { SCN | TIMESTAMP } expr
                                | TO BEFORE { SCN | TIMESTAMP } expr
FLASHBACK TABLE
                            FLASHBACK TABLE
                               [ schema. ]table
                                 [, [ schema. ]table ]...
                               TO { { SCN | TIMESTAMP } expr
                                    [ { ENABLE | DISABLE } TRIGGERS ]
                                   | BEFORE DROP [ RENAME TO table ]
                                  } ;
                            GRANT { grant system privileges
GRANT
                                   grant_object_privileges
INSERT
                            INSERT [ hint ]
                               { single table insert | multi table insert } ;
LOCK TABLE
                            LOCK TABLE
                               [ schema. ] { table | view }
                               [ { PARTITION (partition)
                                  | SUBPARTITION (subpartition)
                                 @ dblink
                                  [, [ schema. ] { table | view }
                                    [ { PARTITION (partition)
                                       | SUBPARTITION (subpartition)
                                      @ dblink
```

```
SQL Statement
                            Syntax
                                 1...
                               IN lockmode MODE
                               [ NOWAIT ] ;
MERGE
                            MERGE [ hint ]
                               INTO [ schema. ]table [ t alias ]
                               USING [ schema. ] { table | view | subquery }
                                 [talias]
                               ON (condition)
                               [ merge_update_clause ]
                               [ merge_insert_clause ] ;
NOAUDIT
                            NOAUDIT
                               { sql statement clause
                                 [, sql statement clause ]...
                               | schema object clause
                                 [, schema object clause]...
                               [ WHENEVER [ NOT ] SUCCESSFUL ] ;
                            PURGE
PURGE
                               { TABLE table
                                   INDEX index
                               | { RECYCLEBIN | DBA RECYCLEBIN }
                                TABLESPACE tablespace
                                 [ USER user ]
                            RENAME old name
RENAME
                               TO new name ;
REVOKE
                            REVOKE { revoke system privileges
                                    | revoke object privileges
ROLLBACK
                            ROLLBACK [ WORK ]
                               [ TO [ SAVEPOINT ] savepoint
                               | FORCE 'text'
                               ] ;
SAVEPOINT
                            SAVEPOINT savepoint ;
                            subquery [ for update clause ] ;
SELECT
SET CONSTRAINT[S]
                            SET { CONSTRAINT | CONSTRAINTS }
                                  constraint [, constraint ]...
                                  IMMEDIATE | DEFERRED } ;
```

```
SQL Statement
                            Syntax
SET ROLE
                            SET ROLE
                               { role [ IDENTIFIED BY password ]
                                 [, role [ IDENTIFIED BY password ] ]...
                                ALL [ EXCEPT role [, role ]... ]
                                NONE
                            SET TRANSACTION
SET TRANSACTION
                               { { READ { ONLY | WRITE }
                                 ISOLATION LEVEL
                                  { SERIALIZABLE | READ COMMITTED }
                                 | USE ROLLBACK SEGMENT rollback segment
                                 [ NAME 'text' ]
                               NAME 'text'
TRUNCATE
                            TRUNCATE
                               { TABLE [ schema. ]table
                                 [ { PRESERVE | PURGE } MATERIALIZED VIEW LOG ]
                               | CLUSTER [ schema. ]cluster
                               [ { DROP | REUSE } STORAGE ] ;
                            UPDATE [ hint ]
UPDATE
                               { dml_table_expression_clause
                                 ONLY (dml table expression clause)
                               [talias]
                               update set clause
                               [ where clause ]
                               [ returning clause ] ;
```

Table 2: Syntax for Subclauses

Subclause	Syntax
activate_standby_db_clause	ACTIVATE [PHYSICAL LOGICAL] STANDBY DATABASE [SKIP [STANDBY LOGFILE]]
add_binding_clause	ADD BINDING (parameter_type [, parameter_type]) RETURN (return_type) [implementation_clause] using_function_clause

```
Subclause
                              Syntax
add column clause
                              ADD
                                 ( column datatype
                                   [ DEFAULT expr ]
                                    [ { inline constraint
                                        [ inline constraint ]...
                                       inline ref constraint
                                   1
                                   [, column datatype
                                       [ DEFAULT expr ]
                                       [ { inline_constraint
                                           [ inline constraint ]...
                                          inline ref constraint
                                      ]
                                   ] . . .
                                 [ column properties ]
add disk clause
                              ADD
                              [ FAILGROUP failgroup name ]
                              DISK qualified disk clause
                                   [, qualified disk clause ]...
                                [ [ FAILGROUP failgroup name ]
                                  DISK qualified disk clause
                                        [, qualified disk clause ]...
                                ] . . .
                              ADD PARTITION
add_hash_index_partition
                                 [ partition name ]
                                 [ TABLESPACE tablespace name ]
                                 [ parallel clause ]
add hash partition clause
                              ADD PARTITION [ partition ]
                                 partitioning_storage_clause
                                 [ update index clauses ]
                                 [ parallel clause ]
add hash subpartition
                              ADD subpartition spec
                                 [ update index clauses ]
                                 [ parallel_clause ]
add list partition clause
                              ADD PARTITION [ partition ]
                                 list values clause
                                 [ table partition description ]
                                 [ update index clauses ]
add list subpartition
                              ADD subpartition spec
                                 [ update index clauses ]
```

```
Subclause
                              Syntax
add logfile clauses
                             ADD [ STANDBY ] LOGFILE
                                { [ INSTANCE 'instance name' | THREAD integer
                                   [ GROUP integer ] redo log file spec
                                     [, [ GROUP integer ] redo_log_file_spec
                                | MEMBER 'filename' [ REUSE ]
                                          [, 'filename' [ REUSE ] ]...
                                      TO logfile descriptor
                                         [, logfile descriptor]...
                                }
add overflow clause
                             ADD OVERFLOW [ segment attributes clause ]
                              [ (PARTITION [ segment attributes clause ]
                                [, PARTITION [ segment attributes clause ]
                               )
                             ]
                             ADD PARTITION [ partition ]
add range partition clause
                                range values clause
                                 [ table partition description ]
                                 [ update index clauses ]
                              { add range partition clause
add table partition
                               add hash partition clause
                               add list partition clause
                              +diskgroup name [ (template name) ] /alias name
alias file name
allocate extent clause
                             ALLOCATE EXTENT
                                [ ( \{ SIZE size clause
                                     DATAFILE 'filename'
                                     INSTANCE integer
                                      [ SIZE size clause
                                      | DATAFILE 'filename'
                                      | INSTANCE integer
                                      ] . . .
                                 )
                               1
                              { { ADD | MODIFY } ATTRIBUTE
alter attribute definition
                                    { attribute [ datatype ]
                                    | ( attribute datatype
                                        [, attribute datatype]...
                              DROP ATTRIBUTE
```

```
Subclause
                             Syntax
                                   { attribute
                                     ( attribute [, attribute ]... )
                             MODIFY { LIMIT integer
alter_collection_clauses
                                      ELEMENT TYPE datatype
alter datafile clause
                             DATAFILE
                                { 'filename' | filenumber }
                                   [, 'filename' | filenumber ]...
                                 { ONLINE
                                  OFFLINE [ FOR DROP ]
                                  RESIZE size clause
                                  autoextend_clause
                                  END BACKUP
alter_external_table_clauses | { add_column clause
                               modify_column_clauses
                               drop column clause
                               parallel clause
                               external data properties
                               REJECT LIMIT { integer | UNLIMITED }
                               PROJECT COLUMN { ALL | REFERENCED }
                                [ add column clause
                                modify_column_clauses
                                 drop column clause
                                 parallel clause
                                 external data properties
                                 REJECT LIMIT { integer | UNLIMITED }
                                 PROJECT COLUMN { ALL | REFERENCED }
                               ] . . .
alter_index_partitioning
                              { modify index default attrs
                               add hash index partition
                               modify_index_partition
                               rename index partition
                               drop index partition
                               split index partition
                               coalesce index partition
                               modify index_subpartition
alter iot clauses
                              { index org table clause
                               alter_overflow clause
                               alter mapping table clauses
                               COALESCE
```

```
Subclause
                             Syntax
alter mapping table clauses
                             MAPPING TABLE
                                 { UPDATE BLOCK REFERENCES
                                  allocate extent clause
                                 deallocate unused clause
                              { ADD | DROP }
alter method spec
                               map order function spec
                               subprogram spec
                                [ { ADD | DROP }
                                  { map order function spec
                                  subprogram spec
                               ] . . .
alter mv refresh
                             REFRESH
                                 { { FAST | COMPLETE | FORCE }
                                  ON { DEMAND | COMMIT }
                                 { START WITH | NEXT } date
                                  WITH PRIMARY KEY
                                 USING
                                      { DEFAULT MASTER ROLLBACK SEGMENT
                                      | MASTER ROLLBACK SEGMENT
                             rollback_segment
                                  USING { ENFORCED | TRUSTED } CONSTRAINTS
alter overflow clause
                              { OVERFLOW
                                   { allocate extent clause
                                   deallocate unused clause
                                     [ allocate extent clause
                                     deallocate unused clause
                                    ] . . .
                               add overflow clause
alter_session_set_clause
                             SET parameter_name = parameter_value
                                  [ parameter name = parameter value ]...
alter system reset clause
                             parameter name
                                [ SCOPE = { MEMORY | SPFILE | BOTH } ]
                                SID = 'sid'
alter system set clause
                             parameter name =
                                parameter value [, parameter value ]...
                                 [ COMMENT 'text' ]
                                 [ DEFERRED ]
```

```
Subclause
                             Syntax
                                [ SCOPE = { MEMORY | SPFILE | BOTH } ]
                                [ SID = { 'sid' | * } ]
                               modify table default attrs
alter table partitioning
                               set subpartition template
                               modify table partition
                               modify table subpartition
                               move table partition
                               move table subpartition
                               add table partition
                               coalesce table partition
                               drop table partition
                               drop table subpartition
                               rename partition subpart
                               truncate_partition subpart
                               split_table_partition
                               split_table_subpartition
                               merge_table_partitions
                               merge table subpartitions
                               exchange partition subpart
alter table properties
                             { { physical_attributes_clause
                                 logging clause
                                table compression
                                 supplemental table logging
                                 allocate_extent_clause
                                 deallocate_unused_clause
                                 shrink clause
                                 { CACHE | NOCACHE }
                                 upgrade table clause
                                 records per block clause
                                 parallel clause
                                 row movement clause
                                 [ physical attributes clause
                                  logging clause
                                  table compression
                                   supplemental table logging
                                   allocate extent clause
                                   deallocate unused clause
                                   shrink clause
                                   { CACHE | NOCACHE }
                                  upgrade_table_clause
                                  records per block clause
                                   parallel clause
                                  | row_movement clause
                              RENAME TO new table name
                             [ alter iot clauses ]
```

```
Subclause
                             Syntax
alter_tempfile_clause
                             TEMPFILE
                                 { 'filename' [, 'filename']...
                                  filenumber [, filenumber ]...
                                 { RESIZE size clause
                                  autoextend clause
                                  DROP [ INCLUDING DATAFILES ]
                                  ONLINE
                                  OFFLINE
alter_varray_col_properties
                             MODIFY VARRAY varray item
                                 ( modify_LOB_parameters )
analytic clause
                              [ query partition clause ]
                              [ order by clause [ windowing clause ] ]
archive log clause
                             ARCHIVE LOG
                                 [ INSTANCE 'instance_name' | THREAD integer
                                 { { SEQUENCE integer
                                    CHANGE integer
                                    CURRENT [ NOSWITCH ]
                                   GROUP integer
                                   | LOGFILE 'filename'
                                        [ USING BACKUP CONTROLFILE ]
                                    NEXT
                                    ALL
                                   START
                                   [ TO 'location' ]
                                  STOP
array DML clause
                              [ WITH | WITHOUT ]
                             ARRAY DML
                              [ ([ schema. ]type
                                 [, [ schema. ]varray type ])
                                 [, ([ schema. ]type
                                      [, [ schema. ]varray type ])...
                             ATTRIBUTE level DETERMINES
attribute clause
                                 { dependent column
                                 | ( dependent column
                                     [, dependent column ]...)
auditing by clause
                             BY { proxy [, proxy ]...
                                  user [, user]...
```

```
Syntax
Subclause
auditing_on clause
                             ON { [ schema. ] object
                                  DIRECTORY directory name
                                 DEFAULT
autoextend clause
                             AUTOEXTEND
                                { OFF
                                ON [ NEXT size clause ]
                                   [ maxsize clause ]
binding clause
                             BINDING
                                (parameter type [, parameter type ]...)
                                RETURN return type
                                [ implementation clause ]
                                using function clause
                                 [, (parameter_type [, parameter_type ]...)
                                    RETURN return type
                                    [ implementation clause ]
                                    using function clause
                                 ] . . .
bitmap join index clause
                             [ schema.]table
                                ([[schema.]table. | t alias.]column
                                   [ ASC | DESC ]
                                    [, [ [ schema. ]table. | t alias. ]column
                                       [ ASC | DESC ]
                                FROM [ schema. ]table [ t alias ]
                                       [, [ schema. ]table [ t alias ]
                                WHERE condition
                                   [ local_partitioned_index ]
                             index attributes
                             BUILD { IMMEDIATE | DEFERRED }
build clause
C declaration
                             C [ NAME name ]
                                LIBRARY lib name
                                [ AGENT IN (argument[, argument]...)]
                                [ WITH CONTEXT ]
                                [ PARAMETERS (parameter[, parameter]...) ]
                             LANGUAGE { Java declaration | C declaration }
call spec
cancel clause
                             CANCEL [ IMMEDIATE ] [ WAIT | NOWAIT ]
```

```
Syntax
Subclause
cell assignment
                             measure column [ { { condition
                                                   expr
                                                   single column for loop
                                                   [, { condition
                                                        expr
                                                        single_column_for_loop
                                               | multi column for loop
                                             ]
                             Note: The outer square brackets are part of the
                             syntax.
                                   In this case, they do not indicate
                             optionality.
cell reference options
                              [ { IGNORE | KEEP } NAV ]
                              [ UNIQUE { DIMENSION | SINGLE REFERENCE } ]
character_set_clause
                             CHARACTER SET character_set
check datafiles clause
                             CHECK DATAFILES [ GLOBAL | LOCAL ]
check_diskgroup_clauses
                             CHECK
                             { ALL
                              DISK
                                 disk name
                                 [, disk name]...
                              DISKS IN FAILGROUP
                                 failgroup name
                                 [, failgroup_name]...
                             FILE
                                 filename
                                 [, filename]...
                             [ CHECK
                                { ALL
                                DISK
                                   disk name
                                   [, disk name]...
                                | DISKS IN FAILGROUP
                                   failgroup name
                                   [, failgroup_name]...
                                FILE
                                   filename
                                   [, filename]...
                             ] . . .
                             [ REPAIR | NOREPAIR ]
```

Subclause	Syntax
checkpoint_clause	CHECKPOINT [GLOBAL LOCAL]
cluster_index_clause	CLUSTER [schema.] cluster index_attributes
coalesce_index_partition	COALESCE PARTITION [parallel_clause]
coalesce_table_partition	COALESCE PARTITION [update_index_clauses] [parallel_clause]
column_association	COLUMNS [schema.]table.column [, [schema.]table.column] using_statistics_type
column_clauses	<pre>{</pre>
column_properties	<pre>{ object_type_col_properties nested_table_col_properties LOB_storage_clause } { varray_col_properties LOB_storage_clause } [(LOB_partition_storage </pre>

```
Subclause
                              Syntax
commit switchover clause
                              { PREPARE | COMMIT } TO SWITCHOVER
                              [ TO { { PHYSICAL | LOGICAL } PRIMARY
                                    PHYSICAL STANDBY
                                     [ { WITH | WITHOUT } SESSION SHUTDOWN
                                        { TIAWON | TIAW }
                                     LOGICAL STANDBY
                                CANCEL
                              1
compile_type_clause
                              COMPILE
                                 [ DEBUG ]
                                 [ SPECIFICATION | BODY ]
                                 [ compiler parameters clause
                                   [ compiler parameters clause ] ... ]
                                 [ REUSE SETTINGS ]
compiler parameters clause
                              parameter name = parameter value
composite partitioning
                              PARTITION BY RANGE ( column list )
                                [ subpartition by list | subpartition by hash
                                ( PARTITION [ partition ]
                                     range values clause
                                     table partition description
                                  [, PARTITION [ partition ]
                                        range values clause
                                        table partition description ] ...
                                )
                              COMPUTE [ SYSTEM ] STATISTICS [ for clause ]
compute statistics clause
conditional insert clause
                              [ ALL | FIRST ]
                              WHEN condition
                              THEN insert into clause
                                   [ values clause ]
                                   [ error logging clause ]
                                   [ insert into clause
                                     [ values clause ]
                                     [ error logging clause ]
                                   ] . . .
                              [ WHEN condition
                                THEN insert into clause
                                     [ values clause ]
                                     [ error logging clause ]
                                     [ insert into clause
                                       [ values clause ]
                                       [ error logging clause ]
                                     ] . . .
                              [ ELSE insert_into_clause
```

```
Subclause
                             Syntax
                                     [ values clause ]
                                     [ error logging clause ]
                                     [ insert into clause
                                       [ values clause ]
                                       [ error logging clause ]
                             1
                              { inline constraint
constraint
                               out_of_line_constraint
                               inline ref constraint
                               out of line ref constraint
constraint clauses
                              { ADD { out of line constraint
                                      [ out of line constraint ] ...
                                    out_of_line_REF_constraint
                              | MODIFY { CONSTRAINT constraint
                                         PRIMARY KEY
                                        UNIQUE (column [, column ]...)
                                       constraint state
                              RENAME CONSTRAINT old name TO new name
                              drop constraint clause
                              [ [ NOT ] DEFERRABLE ]
constraint state
                                [ INITIALLY { IMMEDIATE | DEFERRED } ]
                              | [ INITIALLY { IMMEDIATE | DEFERRED } ]
                               [ [ NOT ] DEFERRABLE ]
                              [ RELY | NORELY ]
                              [ using_index_clause ]
                              [ ENABLE | DISABLE ]
                              [ VALIDATE | NOVALIDATE ]
                              [ exceptions clause ]
                              [ FINAL ]
constructor declaration
                              [ INSTANTIABLE ]
                              CONSTRUCTOR FUNCTION datatype
                              [ [ SELF IN OUT datatype, ]
                               parameter datatype
                               [, parameter datatype]...
                             RETURN SELF AS RESULT
                              { IS | AS } { pl/sql block | call spec }
                              [ FINAL ]
constructor spec
                              [ INSTANTIABLE ]
                             CONSTRUCTOR FUNCTION datatype
                              [ ([ SELF IN OUT datatype, ]
```

```
Subclause
                             Syntax
                                parameter datatype
                                [, parameter datatype]...
                             RETURN SELF AS RESULT
                              [ { IS | AS } call spec ]
context clause
                              [ WITH INDEX CONTEXT,
                               SCAN CONTEXT implementation type
                                [ COMPUTE ANCILLARY DATA ]
                              [ WITH COLUMN CONTEXT ]
                              { CREATE [ LOGICAL | PHYSICAL ]
controlfile clauses
                                  STANDBY CONTROLFILE AS
                                  'filename' [ REUSE ]
                              BACKUP CONTROLFILE TO
                                   { 'filename' [ REUSE ]
                                   trace_file_clause
                             CREATE DATAFILE
create datafile clause
                                { 'filename' | filenumber }
                                  [, 'filename' | filenumber ]...
                                 [ AS { file specification
                                        [, file specification ]...
                                       NEW
                                1
create incomplete type
                             CREATE [ OR REPLACE ]
                                TYPE [ schema. ]type_name ;
create mv refresh
                              { REFRESH
                                { { FAST | COMPLETE | FORCE }
                                 ON { DEMAND | COMMIT }
                                 { START WITH | NEXT } date
                                 WITH { PRIMARY KEY | ROWID }
                                 USING
                                    { DEFAULT [ MASTER | LOCAL ]
                                         ROLLBACK SEGMENT
                                     | [ MASTER | LOCAL ]
                                         ROLLBACK SEGMENT rollback segment
                                       [ DEFAULT [ MASTER | LOCAL ]
                                           ROLLBACK SEGMENT
                                       [ MASTER | LOCAL ]
                                           ROLLBACK SEGMENT rollback segment
                                      ] . . .
```

```
Subclause
                             Syntax
                                USING
                                     { ENFORCED | TRUSTED }
                                    CONSTRAINTS
                                  [ { FAST | COMPLETE | FORCE }
                                  ON { DEMAND | COMMIT }
                                   { START WITH | NEXT } date
                                   WITH { PRIMARY KEY | ROWID }
                                  USING
                                       { DEFAULT [ MASTER | LOCAL ]
                                           ROLLBACK SEGMENT
                                       | [ MASTER | LOCAL ]
                                            ROLLBACK SEGMENT rollback segment
                                         [ DEFAULT [ MASTER | LOCAL ]
                                             ROLLBACK SEGMENT
                                         | [ MASTER | LOCAL ]
                                              ROLLBACK SEGMENT
                             rollback segment
                                        ] . . .
                                  USING
                                       { ENFORCED | TRUSTED }
                                       CONSTRAINTS
                              NEVER REFRESH
create nested table type
                             CREATE [ OR REPLACE ]
                                TYPE [ schema. ] type name
                                 [ OID 'object_identifier' ]
                                 { IS | AS } TABLE OF datatype ;
create object type
                             CREATE [ OR REPLACE ]
                                TYPE [ schema. ]type_name
                                [ OID 'object identifier' ]
                                [ invoker rights clause ]
                                 { { IS | AS } OBJECT
                                 UNDER [schema.] supertype
                                 [ sqlj_object_type ]
                                 [ ( attribute datatype
                                     [ sqlj object type attr ]
                                     [, attribute datatype
                                        [ sqlj_object_type_attr ]...
                                     [, element spec
                                        [, element spec ]...
                                1
                                 [ NOT ] FINAL ]
                                 [ [ NOT ] INSTANTIABLE ] ;
```

```
Syntax
Subclause
create varray type
                             CREATE [ OR REPLACE ]
                                TYPE [ schema. ] type name
                                [ OID 'object identifier' ]
                                 { IS | AS } { VARRAY | VARYING ARRAY }
                                (limit) OF datatype;
database file clauses
                              { RENAME FILE
                                  'filename' [, 'filename']...
                                  TO 'filename'
                              create datafile clause
                               alter datafile clause
                               alter tempfile clause
database logging clauses
                              { LOGFILE
                                  [ GROUP integer ] file specification
                                    [, [ GROUP integer ] file specification
                              MAXLOGFILES integer
                              | MAXLOGMEMBERS integer
                              | MAXLOGHISTORY integer
                              | { ARCHIVELOG | NOARCHIVELOG }
                              | FORCE LOGGING
                              { ADD { DATAFILE | TEMPFILE }
datafile tempfile clauses
                                [ file specification
                                   [, file specification ]...
                              | RENAME DATAFILE 'filename' [, 'filename' ]...
                                   'filename' [, 'filename']...
                              | { DATAFILE | TEMPFILE } { ONLINE | OFFLINE }
datafile tempfile spec
                              ['filename']
                              [ SIZE size clause ]
                              [ REUSE ]
                              [ autoextend_clause ]
dblink
                              database[.domain [.domain ]...]
                              [ @ connect descriptor ]
dblink authentication
                             AUTHENTICATED BY user
                             IDENTIFIED BY password
deallocate unused clause
                             DEALLOCATE UNUSED
                              [ KEEP size clause ]
```

Subclause	Syntax
default_cost_clause	DEFAULT COST (cpu_cost, io_cost, network_cost)
default_selectivity_clause	DEFAULT SELECTIVITY default_selectivity
default_tablespace	DEFAULT TABLESPACE tablespace [DATAFILE datafile_tempfile_spec] extent_management_clause
default_settings_clauses	{ SET DEFAULT
default_temp_tablespace	[BIGFILE SMALLFILE] DEFAULT TEMPORARY TABLESPACE tablespace [TEMPFILE file_specification
dependent_handling_clause	{ INVALIDATE CASCADE [{ [NOT] INCLUDING TABLE DATA CONVERT TO SUBSTITUTABLE }] [[FORCE] exceptions_clause] }
dimension_join_clause	<pre>JOIN KEY { child_key_column</pre>

```
Subclause
                             Syntax
disk clauses
                             { diskgroup name
                                  { add disk clause
                                   drop disk clauses
                                   resize_disk_clauses
                             | { diskgroup name | ALL }
                                   undrop disk clause
                             { ADD ALIAS
diskgroup alias clauses
                                 alias name FOR filename
                                  [, alias name FOR filename]...
                              DROP ALIAS
                                 alias name
                                 [, alias name]...
                              RENAME ALIAS
                                 old alias name TO new alias name
                                  [, old alias name TO new alias name ]...
diskgroup availability
                             { MOUNT
                               DISMOUNT [ FORCE | NOFORCE ]
diskgroup clauses
                             { diskgroup name
                                  { rebalance diskgroup clause
                                   check diskgroup clauses
                                   diskgroup template clauses
                                   diskgroup_directory_clauses
                                   diskgroup_alias_clauses
                                   drop diskgroup file clause
                             | { diskgroup_name | ALL }
                               diskgroup availability
diskgroup directory clauses
                             { ADD DIRECTORY
                                 filename
                                 [, filename ]...
                              DROP DIRECTORY
                                 filename [ FORCE | NOFORCE ]
                                  [, filename [ FORCE | NOFORCE ] ]...
                              | RENAME DIRECTORY
                                 old dir name TO new dir name
                                  [, old dir name TO new dir name ]...
diskgroup_file_spec
                              [ ' { fully_qualified_file_name
                                   numeric file name
                                   incorporate_file_name
                                   alias_file_name
```

```
Subclause
                             Syntax
                              [ SIZE size clause ]
                              [ REUSE ]
                              [ autoextend clause ]
                              { ADD | ALTER } TEMPLATE
diskgroup template clauses
                                   qualified_template_clause
                                    [, qualified template clause ]...
                              DROP TEMPLATE
                                    template name
                                     [, template name]...
distributed recov clauses
                              { ENABLE | DISABLE } DISTRIBUTED RECOVERY
                              { DELETE | INSERT | UPDATE
dml event clause
                                  [ OF column [, column ]... ]
                                [ OR { DELETE | INSERT | UPDATE
                                     [ OF column [, column]...]
                               ] . . .
                             ON { [ schema. ]table
                                [ NESTED TABLE nested table column OF ]
                                        [ schema. ] view
                              [ referencing clause ]
                              [ FOR EACH ROW ]
                              { [ schema. ]
dml table expression clause
                                { table
                                  [ { PARTITION (partition)
                                    | SUBPARTITION (subpartition)
                                  @ dblink
                                  { view | materialized view } [ @ dblink ]
                               ( subquery [ subquery restriction clause ] )
                               table collection expression
domain index clause
                             INDEXTYPE IS indextype
                                 [ parallel clause ]
                                 [ PARAMETERS ('ODCI parameters') ]
drop binding clause
                             DROP BINDING
                              (parameter type
                              [, parameter type ]...)
                              [ FORCE ]
```

```
Subclause
                             Syntax
drop_column clause
                             { SET UNUSED {
                                            COLUMN column
                                            (column [, column ]...)
                               [ { CASCADE CONSTRAINTS | INVALIDATE }
                                    [ CASCADE CONSTRAINTS | INVALIDATE ]...
                             DROP { COLUMN column
                                      (column [, column ]...)
                               [ { CASCADE CONSTRAINTS | INVALIDATE }
                                    [ CASCADE CONSTRAINTS | INVALIDATE ]...
                               [ CHECKPOINT integer ]
                              DROP { UNUSED COLUMNS
                                      COLUMNS CONTINUE
                               [ CHECKPOINT integer ]
drop constraint clause
                             DROP
                                { PRIMARY KEY
                                    UNIQUE (column [, column ]...)
                                  [ CASCADE ]
                                  [ { KEEP | DROP } INDEX ]
                                | CONSTRAINT constraint
                                   [ CASCADE ]
                             DROP
drop_disk_clauses
                             { DISK
                                 disk name [ FORCE | NOFORCE ]
                                 [, disk name [ FORCE | NOFORCE ] ]...
                             DISKS IN FAILGROUP
                                 failgroup name [ FORCE | NOFORCE ]
                                 [, failgroup name [ FORCE | NOFORCE ] ]...
                             DROP FILE
drop diskgroup file clause
                               filename
                               [, filename]...
                             DROP PARTITION partition name
drop index partition
                             DROP [ STANDBY ] LOGFILE
drop logfile clauses
                                { logfile descriptor
                                  [, logfile descriptor]...
                                | MEMBER 'filename'
                                          [, 'filename']...
```

```
Subclause
                              Syntax
drop table partition
                              DROP PARTITION partition
                                 [ update index clauses [ parallel clause ] ]
drop table subpartition
                             DROP SUBPARTITION subpartition
                                 [ update index clauses [ parallel clause ] ]
element spec
                              [ inheritance clauses ]
                              { subprogram spec
                               constructor spec
                               map order function spec
                                [ subprogram clause
                                constructor spec
                                | map order function spec
                              [, pragma_clause ]
else clause
                             ELSE else expr
enable disable clause
                              { ENABLE | DISABLE }
                              [ VALIDATE | NOVALIDATE ]
                              { UNIQUE (column [, column ]...)
                              PRIMARY KEY
                              | CONSTRAINT constraint
                              [ using index clause ]
                              [ exceptions clause ]
                              [ CASCADE ]
                              [ { KEEP | DROP } INDEX ]
end session clauses
                              { DISCONNECT SESSION 'integer1, integer2'
                                   [ POST TRANSACTION ]
                               KILL SESSION 'integer1, integer2'
                              [ IMMEDIATE ]
                              ESTIMATE [ SYSTEM ] STATISTICS [ for clause ]
estimate statistics clause
                              [ SAMPLE integer { ROWS | PERCENT } ]
exceptions clause
                              EXCEPTIONS INTO [ schema. ]table
exchange partition subpart
                              EXCHANGE { PARTITION partition
                                         SUBPARTITION subpartition
                                WITH TABLE table
                                 [ { INCLUDING | EXCLUDING } INDEXES ]
                                 [ { WITH | WITHOUT } VALIDATION ]
                                 [ exceptions clause ]
                                 [ update index clauses [ parallel clause ] ]
```

```
Syntax
Subclause
expr
                              { simple expression
                               compound_expression
                               case expression
                              cursor expression
                              datetime_expression
                               function expression
                               interval expression
                               object access expression
                               scalar subquery expression
                              | model expression
                              type_constructor_expression
                               variable_expression
expression list
                              { expr [, expr ]...
                               (expr [, expr ]...)
extended attribute clause
                             ATTRIBUTE attribute
                             LEVEL level
                             DETERMINES { dependent_column
                                         (dependent column
                                             [, dependent column ]...
                              [ LEVEL level
                               DETERMINES { dependent column
                                            (dependent column
                                               [, dependent column ]...
                             ] . . .
                             EXTENT MANAGEMENT
extent management clause
                                 { DICTIONARY
                                 LOCAL
                                   [ AUTOALLOCATE
                                  UNIFORM
                                     [ SIZE size clause ]
                                  ]
                                 }
                             DEFAULT DIRECTORY directory
external_data_properties
                              [ ACCESS PARAMETERS
                                { (opaque format spec)
                                USING CLOB subquery
                             LOCATION
                                 ([ directory: ] 'location specifier'
                                    [, [ directory: ] 'location specifier'
                             ] . . .
                                )
```

```
Subclause
                               Syntax
external table clause
                               ([ TYPE access_driver_type ]
                               external data properties
                               [ REJECT LIMIT { integer | UNLIMITED } ]
file specification
                               { datafile tempfile spec
                                diskgroup file spec
                                redo log file spec
finish clause
                               [ DISCONNECT [ FROM SESSION ] ]
                               [ parallel clause ]
                               FINISH
                               [ SKIP [ STANDBY LOGFILE ] ]
                               [ TIAWON | TIAW ]
                               FLASHBACK { ON | OFF }
flashback mode clause
                               [ VERSIONS BETWEEN
flashback query clause
                                 { SCN | TIMESTAMP }
                                 { expr | MINVALUE } AND { expr | MAXVALUE }
                              AS OF { SCN | TIMESTAMP } expr
for clause
                              FOR
                                  { TABLE
                                   ALL [ INDEXED ] COLUMNS [ SIZE integer ]
                                  | COLUMNS [ SIZE integer ]
                                    { column | attribute } [ SIZE integer ]
                                      [ { column | attribute }
                                        [ SIZE integer ]
                                      ] . . .
                                  | ALL [ LOCAL ] INDEXES
                                  [ FOR
                                   { TABLE
                                   | ALL [ INDEXED ] COLUMNS
                                        [ SIZE integer ]
                                   | COLUMNS [ SIZE integer ]
                                     { column | attribute } [ SIZE integer ]
                                       [ { column | attribute }
                                         [ SIZE integer ]
                                       ] . . .
                                    ALL [ LOCAL ] INDEXES
                                 ] . . .
for update clause
                               FOR UPDATE
                               [ OF [ schema. ]
                                      { table | view } . ]column
                                      [, [ [schema.]
```

```
Subclause
                              Syntax
                                          { table | view } . ]column
                                     ] . . .
                              [ NOWAIT | WAIT integer ]
                              [ STANDBY ] DATABASE
full database recovery
                              [ { UNTIL { CANCEL
                                          TIME date
                                          CHANGE integer
                                 USING BACKUP CONTROLFILE
                                  [ UNTIL { CANCEL
                                            TIME date
                                            CHANGE integer
                                  USING BACKUP CONTROLFILE
                                  ] . . .
                             ]
                              +diskgroup name/db name/file type/
fully_qualified_file_name
                                 file_type_tag.filenumber.incarnation_number
function association
                              { FUNCTIONS
                                   [ schema. ]function [, [ schema. ]function
                              PACKAGES
                                   [ schema. ] package [, [ schema. ] package
                              TYPES
                                   [ schema. ]type [, [ schema. ]type ]...
                              INDEXES
                                   [ schema. ]index [, [ schema. ]index ]...
                              INDEXTYPES
                                   [ schema. ]indextype [, [ schema.
                              ]indextype ]...
                              { using statistics type
                              | { default_cost_clause
                                  [, default selectivity clause ]
                                | default selectivity clause
                                  [, default cost clause ]
                              }
function declaration
                              FUNCTION name
                                 (parameter datatype[, parameter datatype
                              ] . . . )
                                RETURN datatype
                                 { IS | AS } { pl/sql_block | call_spec }
```

```
Subclause
                              Syntax
function spec
                              FUNCTION name
                                 (parameter datatype [, parameter datatype
                              ] . . . )
                                 return_clause
general recovery
                              RECOVER
                              [ AUTOMATIC ]
                              [ FROM 'location' ]
                              { full_database_recovery
                                 partial_database_recovery
                                 LOGFILE 'filename'
                                [ { TEST
                                   ALLOW integer CORRUPTION
                                   parallel clause
                                    [ TEST
                                    | ALLOW integer CORRUPTION
                                    | parallel clause
                                    ] . . .
                                1
                               CONTINUE [ DEFAULT ]
                                CANCEL
global partitioned index
                              GLOBAL PARTITION BY
                                 { RANGE
                                      (column list)
                                      (index partitioning clause)
                                 HASH
                                      (column list)
                                      { individual hash partitions
                                        hash partitions by quantity
                                 }
                              { object privilege | ALL [ PRIVILEGES ] }
grant object privileges
                              [ (column [, column ]...) ]
                                [, { object privilege | ALL [ PRIVILEGES ] }
                                   [ (column [, column ]...) ]
                                ] . . .
                              on object clause
                              TO grantee clause
                              [ WITH HIERARCHY OPTION ]
                              [ WITH GRANT OPTION ]
                              { system privilege
grant system privileges
                                role
                                ALL PRIVILEGES
                                [, { system privilege
```

```
Subclause
                              Syntax
                                     role
                                     ALL PRIVILEGES
                               1...
                             TO grantee clause
                              [ IDENTIFIED BY password ]
                              [ WITH ADMIN OPTION ]
                              { user | role | PUBLIC }
grantee clause
                                [, { user | role | PUBLIC } ]...
group_by_clause
                             GROUP BY
                                 { expr
                                   rollup cube clause
                                   grouping_sets clause
                                   [, { expr
                                       rollup cube clause
                                       grouping sets clause
                                 [ HAVING condition ]
                             expression list [, expression list ]...
grouping expression list
grouping sets clause
                              GROUPING SETS
                              ({ rollup cube clause | grouping expression list
                              })
hash partitioning
                              PARTITION BY HASH
                              (column [, column ] ...)
                              { individual hash partitions
                              | hash partitions by quantity
                             PARTITIONS hash partition quantity
hash partitions by quantity
                              [ STORE IN
                                   (tablespace [, tablespace ]...) ]
                              [ OVERFLOW STORE IN
                                   (tablespace [, tablespace ]...) ]
hierarchical query clause
                              [ START WITH condition ]
                              CONNECT BY [ NOCYCLE ] condition
hierarchy clause
                             HIERARCHY hierarchy
                              (child level CHILD OF parent level
                                           [ CHILD OF parent level ]...
                              [ dimension join clause ]
                              )
```

```
Syntax
Subclause
implementation clause
                              { ANCILLARY TO
                                  primary operator (parameter type
                                                     [, parameter type ]...)
                                   [, primary_operator ( parameter_type
                                                         [, parameter type
                             ]...)
                                  ] . . .
                               context_clause
incomplete file name
                             +diskgroup name [ (template name) ]
index attributes
                              [ { physical_attributes_clause
                                 logging clause
                                ONLINE
                                 COMPUTE STATISTICS
                                 TABLESPACE { tablespace | DEFAULT }
                                key compression
                                 { SORT | NOSORT }
                                REVERSE
                                parallel_clause
                                  [ physical attributes clause
                                  | logging clause
                                   ONLINE
                                  COMPUTE STATISTICS
                                  TABLESPACE { tablespace | DEFAULT }
                                  key compression
                                   { SORT | NOSORT }
                                  REVERSE
                                  parallel_clause
                                 ] . . .
                             ]
index_expr
                              { column | column expression }
index org overflow clause
                              [ INCLUDING column name ]
                             OVERFLOW
                              [ segment attributes clause ]
index org table clause
                              [ { mapping_table_clause
                                 PCTTHRESHOLD integer
                                 key compression
                                  [ mapping_table_clause
                                  PCTTHRESHOLD integer
                                  | key_compression
                                 ] . . .
                              [ index org overflow clause ]
```

```
Syntax
Subclause
index partition description
                              PARTITION
                              [ partition
                                 [ { segment attributes clause
                                    key_compression
                                   [ segment attributes clause
                                   | key_compression
                                   ] . . .
                                 ]
                              ]
                              PARTITION [ partition ]
index partitioning clause
                                 VALUES LESS THAN (value[, value...])
                                 [ segment attributes clause ]
index properties
                              [ { global partitioned index
                                    local partitioned index
                                 index attributes
                                    [ { global partitioned index
                                         local partitioned index
                                        index attributes
                                    ] . . .
                              | domain_index_clause
                              { STORE IN (tablespace[, tablespace]...)
index subpartition clause
                              | (SUBPARTITION
                                    [ subpartition [ TABLESPACE tablespace ] ]
                                 [, SUBPARTITION
                                       [ subpartition [ TABLESPACE tablespace
                              ] ]
                                 ] . . .
                                )
individual hash partitions
                              (PARTITION
                                 [ partition partitioning_storage_clause ]
                                [, PARTITION
                                      [ partition partitioning storage clause
                              ]
                                ] . . .
                              [ NOT ] { OVERRIDING | FINAL | INSTANTIABLE }
inheritance clauses
                                [ [ NOT ] { OVERRIDING | FINAL | INSTANTIABLE
                              } ]...
```

```
Subclause
                             Syntax
inline constraint
                              [ CONSTRAINT constraint name ]
                             { [ NOT ] NULL
                              UNIQUE
                              | PRIMARY KEY
                              references clause
                              CHECK (condition)
                             [ constraint state ]
inline ref constraint
                             { SCOPE IS [ schema. ] scope table
                              WITH ROWID
                             [ CONSTRAINT constraint name ]
                               references clause
                               [ constraint state ]
inner_cross_join_clause
                             table reference
                             { [ INNER ] JOIN table reference
                                  { ON condition
                                  USING (column [, column ]...)
                             | { CROSS
                                NATURAL [ INNER ]
                               JOIN table reference
                             INTO dml_table_expression_clause [ t_alias ]
insert_into_clause
                             [ (column [, column ]...) ]
                             [ + | - ] digit [ digit ]...
integer
interval day to second
                             INTERVAL
                               '{ integer | integer time_expr | time_expr }'
                             { { DAY | HOUR | MINUTE }
                                   [ (leading precision) ]
                             SECOND
                                  [ (leading precision
                                      [, fractional seconds precision ]
                             [ TO { DAY | HOUR | MINUTE | SECOND
                                    [ (fractional_seconds_precision) ]
                             1
                             INTERVAL 'integer [- integer ]'
interval year to month
                             { YEAR | MONTH } [ (precision) ]
                             [ TO { YEAR | MONTH } ]
```

Subclause	Syntax
into_clause	INTO [schema.] table
invoker_rights_clause	AUTHID { CURRENT_USER DEFINER }
Java_declaration	JAVA NAME 'string'
join_clause	{ inner_cross_join_clause outer_join_clause }
key_compression	{ COMPRESS [integer] NOCOMPRESS }
level_clause	<pre>LEVEL level IS { level_table.level_column</pre>
list_partitioning	PARTITION BY LIST (column) (PARTITION [partition] list_values_clause table_partition_description [, PARTITION [partition] list_values_clause table_partition_description])
list_values_clause	VALUES ({ value NULL) DEFAULT)
LOB_parameters	{ TABLESPACE tablespace { ENABLE DISABLE } STORAGE IN ROW storage_clause CHUNK integer PCTVERSION integer RETENTION FREEPOOLS integer { CACHE

```
Subclause
                             Syntax
                                 CHUNK integer
                                 PCTVERSION integer
                                RETENTION
                                | FREEPOOLS integer
                                { CACHE
                                  | { NOCACHE | CACHE READS } [ logging clause
                             1
                               ] . . .
                             PARTITION partition
LOB partition storage
                             { LOB storage clause | varray col properties }
                                [ LOB storage clause | varray col properties
                             ] . . .
                              [ (SUBPARTITION subpartition
                                { LOB storage clause | varray col properties
                                   [ LOB storage clause
                                   | varray col properties
                                  ] . . .
                               )
                             ]
LOB storage clause
                             LOB
                              { (LOB item [, LOB item ]...)
                                   STORE AS (LOB parameters)
                               (LOB item)
                                  STORE AS
                                      { LOB segname (LOB parameters)
                                      LOB segname
                                        (LOB parameters)
local partitioned index
                             LOCAL
                             [ on range partitioned table
                              on list partitioned table
                              on hash partitioned table
                              on comp partitioned table
logfile clause
                             LOGFILE
                              [ GROUP integer ] file specification
                                [, [ GROUP integer ] file specification ]...
logfile clauses
                              { ARCHIVELOG [ MANUAL ]
                                NOARCHIVELOG
                               [ NO ] FORCE LOGGING
                              | RENAME FILE 'filename'
                                            [, 'filename']...
                                  TO 'filename'
```

```
Subclause
                             Syntax
                              CLEAR
                                   [ UNARCHIVED ]
                                       LOGFILE logfile descriptor
                                                [, logfile descriptor]...
                                   [ UNRECOVERABLE DATAFILE ]
                              add logfile clauses
                               drop_logfile_clauses
                               supplemental db logging
logfile descriptor
                              { GROUP integer
                               ('filename' [, 'filename']...)
                               'filename'
logging clause
                              { LOGGING | NOLOGGING }
main model
                              [ MAIN main model name ]
                             model column clauses
                              [ cell_reference_options ]
                             model rules clause
                             RECOVER MANAGED STANDBY DATABASE
managed standby recovery
                                [ recover clause | cancel clause |
                             finish clause ]
map order func declaration
                              { MAP | ORDER } MEMBER function declaration
                              { MAP | ORDER } MEMBER function spec
map order function spec
mapping table clauses
                              { MAPPING TABLE | NOMAPPING }
                              [ column properties ]
materialized view props
                              [ table partitioning clauses ]
                              [ CACHE | NOCACHE ]
                              [ parallel clause ]
                              [ build clause ]
maximize_standby db clause
                             SET STANDBY DATABASE TO MAXIMIZE
                              { PROTECTION | AVAILABILITY | PERFORMANCE }
maxsize clause
                             MAXSIZE { UNLIMITED | size clause }
merge insert clause
                             WHEN NOT MATCHED THEN
                             INSERT [ (column [, column ]...) ]
                             VALUES ({ expr [, expr ]... | DEFAULT })
                              [ where_clause ]
```

```
Subclause
                              Syntax
merge table partitions
                              MERGE PARTITIONS partition 1, partition 2
                                 [ INTO partition spec ]
                                 [ update index clauses ]
                                 [ parallel clause ]
merge table subpartitions
                              MERGE SUBPARTITIONS subpart 1, subpart 2
                                 [ INTO subpartition spec ]
                                 [ update index clauses ]
                                 [ parallel clause ]
merge update clause
                              WHEN MATCHED THEN
                              UPDATE SET column = { expr | DEFAULT }
                                         [, column = { expr | DEFAULT } ]...
                              [ where clause ]
                              [ DELETE where clause ]
model_clause
                              MODEL
                                 [ cell reference options ]
                                 [ return rows clause ]
                                 [ reference model ]
                                   [ reference_model ]...
                                 main model
model column
                              expr [ [ AS ] c alias ]
                              [ query_partition_clause [ c_alias ] ]
model column clauses
                              DIMENSION BY (model column
                                              [, model column ]...)
                              MEASURES (model column
                                         [, model column ]...)
model rules clause
                              RULES
                              [ UPSERT | UPDATE ]
                              [ { AUTOMATIC | SEQUENTIAL } ORDER ]
                              [ ITERATE (number) [ UNTIL (condition) ] ]
                              ([ UPDATE | UPSERT ]
                               cell_assignment [ order_by_clause ] = expr
                                 [ [ UPDATE | UPSERT ]
                                   cell assignment [ order by clause ] = expr
                                 ] . . .
                              )
modify col properties
                              ( column [ datatype ]
                                       [ DEFAULT expr ]
                                        [ inline constraint
                                         [ inline constraint ]... ]
                                        [ LOB_storage_clause ]
                                [, column [ datatype ]
                                           [ DEFAULT expr ]
                                           [ inline constraint
```

```
Subclause
                             Syntax
                                            [ inline constraint ]... ]
                                          [ LOB storage clause ]
                               ]
modify col substitutable
                             COLUMN column
                             [ NOT ] SUBSTITUTABLE AT ALL LEVELS
                             [ FORCE ]
modify collection retrieval
                             MODIFY NESTED TABLE collection item
                             RETURN AS { LOCATOR | VALUE }
modify_column_clauses
                             MODIFY { modify_col_properties
                                      modify col substitutable
modify hash partition
                             MODIFY PARTITION partition
                                { partition attributes
                                alter mapping table clause
                                 [ REBUILD ] UNUSABLE LOCAL INDEXES
modify hash subpartition
                             { { allocate extent clause
                                 deallocate unused clause
                                 shrink clause
                                 { LOB LOB item
                                   VARRAY varray
                                 modify_LOB_parameters
                                    [ { LOB LOB item
                                      VARRAY varray
                                     modify LOB parameters
                                [ REBUILD ] UNUSABLE LOCAL INDEXES
                             MODIFY DEFAULT ATTRIBUTES
modify index default attrs
                                 [ FOR PARTITION partition ]
                                 { physical_attributes_clause
                                  TABLESPACE { tablespace | DEFAULT }
                                  logging clause
                                  [ physical attributes clause
                                   | TABLESPACE { tablespace | DEFAULT }
                                   | logging clause
                                  1...
```

```
Subclause
                             Syntax
modify index partition
                             MODIFY PARTITION partition
                             { { deallocate unused clause
                                 allocate extent clause
                                 physical attributes clause
                                 logging clause
                                key compression
                                 [ deallocate unused clause
                                  allocate extent clause
                                  | physical attributes clause
                                 | logging_clause
                                  key_compression
                                 ] . . .
                               PARAMETERS ('ODCI parameters')
                               COALESCE
                               UPDATE BLOCK REFERENCES
                               UNUSABLE
modify_index_subpartition
                             MODIFY SUBPARTITION subpartition
                             { UNUSABLE
                               allocate extent clause
                               deallocate unused clause
modify_list_partition
                             MODIFY PARTITION partition
                               { partition_attributes
                                | {ADD | DROP} VALUES
                                 (partition_value[, partition_value ]...)
                                 [ REBUILD ] UNUSABLE LOCAL INDEXES
modify_list_subpartition
                             { allocate extent clause
                               deallocate unused clause
                               shrink clause
                             | { LOB LOB item | VARRAY varray }
                               modify LOB parameters
                                 [ { LOB LOB item | VARRAY varray }
                                   modify LOB parameters
                                 1 ...
                               [ REBUILD ] UNUSABLE LOCAL INDEXES
                               { ADD | DROP } VALUES (value[, value]...)
modify LOB parameters
                             { storage clause
                               PCTVERSION integer
                               RETENTION
                               FREEPOOLS integer
                              REBUILD FREEPOOLS
                               { CACHE
                                 { NOCACHE | CACHE READS } [ logging clause ]
```

```
Subclause
                              Syntax
                              allocate extent clause
                               deallocate unused clause
                              | shrink clause
                                [ storage_clause
                                | PCTVERSION integer
                                RETENTION
                                | FREEPOOLS integer
                                | REBUILD FREEPOOLS
                                | { CACHE
                                  | { NOCACHE | CACHE READS } [ logging clause
                                allocate extent clause
                                deallocate unused clause
                                | shrink clause
                                ] . . .
modify LOB storage clause
                              MODIFY LOB (LOB item)
                                 (modify LOB parameters)
modify range partition
                              MODIFY PARTITION partition
                                 { partition attributes
                                 | { add_hash_subpartition
                                     add list subpartition
                                 | COALESCE SUBPARTITION
                                      [ update_index_clauses ]
                                      [ parallel clause ]
                                   alter_mapping_table clause
                                   [ REBUILD ] UNUSABLE LOCAL INDEXES
modify table default attrs
                              MODIFY DEFAULT ATTRIBUTES
                                 [ FOR PARTITION partition ]
                                 [ segment attributes clause ]
                                 [ table compression ]
                                 [ PCTTHRESHOLD integer ]
                                 [ key compression ]
                                 [ alter_overflow_clause ]
                                 [ { LOB (LOB_item)
                                    VARRAY varray
                                   (LOB parameters)
                                   [ { LOB (LOB item)
                                       VARRAY varray
                                     (LOB_parameters)
                                   ] . . .
                                 ]
```

Subclause	Syntax
modify_table_partition	<pre>{ modify_range_partition modify_hash_partition modify_list_partition }</pre>
modify_table_subpartition	<pre>MODIFY SUBPARTITION subpartition { modify_hash_subpartition modify_list_subpartition }</pre>
move_table_clause	<pre>MOVE [ONLINE] [segment_attributes_clause] [table_compression] [index_org_table_clause] [{ LOB_storage_clause }</pre>
move_table_partition	MOVE PARTITION partition [MAPPING TABLE] [table_partition_description] [update_index_clauses] [parallel_clause]
move_table_subpartition	MOVE SUBPARTITION subpartition_spec [update_index_clauses] [parallel_clause]
multi_column_for_loop	<pre>FOR (dimension_column</pre>
multi_table_insert	{ ALL insert_into_clause

Subclause	Syntax
multiset_except	nested_table1 MULTISET EXCEPT [ALL DISTINCT] nested_table2
multiset_intersect	nested_table1 MULTISET INTERSECT [ALL DISTINCT] nested_table2
multiset_union	nested_table1 MULTISET UNION [ALL DISTINCT] nested_table2
nested_table_col_properties	<pre>NESTED TABLE { nested_item COLUMN_VALUE } [substitutable_column_clause] STORE AS storage_table [({ (object_properties)</pre>
new_values_clause	{ INCLUDING EXCLUDING } NEW VALUES
number	<pre>[+ -] { digit [digit] [.] [digit [digit]] . digit [digit] } [e [+ -] digit [digit]] [f d]</pre>
numeric_file_name	+diskgroup_name.filenumber.incarnation_number
object_properties	<pre>{</pre>

```
Subclause
                              Syntax
object table
                              CREATE [ GLOBAL TEMPORARY ] TABLE
                                 [ schema. ]table OF
                                 [ schema. ]object type
                                 [ object table substitution ]
                                 [ (object properties) ]
                                 [ ON COMMIT { DELETE | PRESERVE } ROWS ]
                                 [ OID clause ]
                                 [ OID index clause ]
                                 [ physical properties ]
                                 [ table properties ] ;
                              [ NOT ] SUBSTITUTABLE AT ALL LEVELS
object table substitution
object type col properties
                              COLUMN column substitutable column clause
object view clause
                              OF [ schema. ]type_name
                              { WITH OBJECT IDENTIFIER
                                { DEFAULT | ( attribute
                                              [, attribute]...)
                              | UNDER [ schema. ] superview
                              ({ out of line constraint
                               attribute inline constraint
                                           [ inline constraint ]...
                                 [, { out of line constraint
                                    attribute inline constraint
                                                [ inline constraint ]...
                                ] . . .
OID clause
                             OBJECT IDENTIFIER IS
                              { SYSTEM GENERATED | PRIMARY KEY }
                              OIDINDEX [ index ]
OID index clause
                              ({ physical attributes clause
                                TABLESPACE tablespace
                                 [ physical attributes clause
                                 | TABLESPACE tablespace
                                 ] . . .
                              [ STORE IN ( tablespace [, tablespace ]... ) ]
on comp partitioned table
                              ( PARTITION
                                  [ partition
                                    [ { segment attribute clause
                                      key compression
```

```
Subclause
                               Syntax
                                          [ segment attribute clause
                                          | key compression
                                         1...
                                     [ index subpartition clause ]
                                   1
                                     [, PARTITION
                                           [ partition
                                             [ { segment_attribute_clause
                                                 key_compression
                                                 [ segment attribute clause
                                                 | key compression
                                                 ] . . .
                                             [ index_subpartition clause ]
                                          ] . . .
                                     ]
on hash partitioned table
                               { STORE IN (tablespace[, tablespace]...)
                                 (PARTITION
                                     [ partition [ TABLESPACE tablespace ] ]
                                  [, PARTITION
                                        [ partition [ TABLESPACE tablespace ] ]
                                  ] . . .
                                 )
                               }
on list partitioned table
                               ( PARTITION
                                   [ partition
                                     [ { segment attributes clause
                                         key_compression
                                          [ segment attributes clause
                                          | key_compression
                                         ] . . .
                                     ]
                                   1
                                 [, PARTITION
                                      [ partition
                                         [ { segment attributes clause
                                            key_compression
                                             [ segment attributes clause
                                             | key compression
                                             ] . . .
                                        ]
                                      1
                                 ] . . .
```

```
Subclause
                              Syntax
on object clause
                              { schema.object
                              | { DIRECTORY directory name
                                 | JAVA { SOURCE | RESOURCE } [ schema. ]object
                              }
                              ( PARTITION
on range partitioned table
                                  [ partition
                                     [ { segment attributes clause
                                        key_compression
                                        [ segment attributes clause
                                         | key compression
                                        ] . . .
                                [, PARTITION
                                     [ partition
                                        [ { segment_attributes clause
                                           key_compression
                                            [ segment attributes clause
                                            | key_compression
                                           1...
                                       ]
                                     1
                                ] . . .
                              )
order_by_clause
                              ORDER [ SIBLINGS ] BY
                              { expr | position | c_alias }
                              [ ASC | DESC ]
                              [ NULLS FIRST | NULLS LAST ]
                                [, { expr | position | c_alias }
                                   [ ASC | DESC ]
                                   [ NULLS FIRST | NULLS LAST ]
                                ] . . .
out of line constraint
                              [ CONSTRAINT constraint name ]
                              { UNIQUE (column [, column ]...)
                                PRIMARY KEY (column [, column ]...)
                              FOREIGN KEY (column [, column ]...)
                                   references clause
                                CHECK (condition)
                              [ constraint state ]
out_of_line_ref_constraint
                              { SCOPE FOR
                                   ({ ref_col | ref_attr })
                                   IS [ schema. ]scope_table
                              REF
                                   ({ ref_col | ref_attr })
                                   WITH ROWID
```

```
Subclause
                             Syntax
                             [ CONSTRAINT constraint name ]
                               FOREIGN KEY
                                   ({ ref col | ref attr })
                               references clause
                                [ constraint state ]
outer join clause
                             table reference
                             [ query partition clause ]
                             { outer join type JOIN
                              | NATURAL [ outer join type ] JOIN
                             table reference [ query partition clause ]
                             [ ON condition
                             USING (column [, column ]...)
outer_join_type
                             { FULL | LEFT | RIGHT }
                             [ OUTER ]
parallel clause
                             { NOPARALLEL | PARALLEL [ integer ] }
parallel enable clause
                             PARALLEL ENABLE
                             [ (PARTITION argument BY
                                    { ANY
                                      { HASH | RANGE } (column [, column ]...)
                              [ streaming clause ]
                             { TABLESPACE tablespace [, tablespace ]...
partial database recovery
                              | DATAFILE { 'filename' | filenumber }
                                           [, 'filename' | filenumber ]...
                             STANDBY
                                { TABLESPACE tablespace [, tablespace ]...
                                | DATAFILE { 'filename' | filenumber }
                                             [, 'filename' | filenumber ]...
                               UNTIL [ CONSISTENT WITH ] CONTROLFILE
                              [ { physical_attributes clause
partition attributes
                                 logging_clause
                                 allocate extent clause
                                 deallocate unused clause
                                 shrink clause
```

```
Subclause
                             Syntax
                                  [ physical attributes clause
                                  logging clause
                                  allocate extent clause
                                  deallocate unused clause
                                   shrink clause
                              [ OVERFLOW
                                { physical attributes clause
                                logging clause
                                allocate extent clause
                                 deallocate unused clause
                                  [ physical attributes clause
                                  | logging clause
                                  allocate extent clause
                                  deallocate unused clause
                                 ] . . .
                              [ table compression ]
                              [ { LOB LOB_item | VARRAY varray }
                               {\tt modify\_LOB\_parameters}
                               [ { LOB LOB item | VARRAY varray }
                                 modify LOB parameters
                               ] . . .
                             1
                              [ schema.] { table | view }
partition extended name
                              [ PARTITION (partition)
                               SUBPARTITION (subpartition)
                             ]
partition level subpartition { SUBPARTITIONS hash subpartition quantity
                                [ STORE IN (tablespace[, tablespace]...) ]
                                (subpartition spec[, subpartition spec]...)
partition spec
                             PARTITION [ partition ]
                              [ table partition description ]
partitioning storage clause
                              [ { TABLESPACE tablespace
                                 OVERFLOW [ TABLESPACE tablespace ]
                                LOB (LOB item) STORE AS
                                  { LOB segname [ (TABLESPACE tablespace) ]
                                  (TABLESPACE tablespace)
                                 VARRAY varray_item STORE AS LOB LOB_segname
                                  [ { TABLESPACE tablespace
                                     OVERFLOW [ TABLESPACE tablespace ]
                                    LOB (LOB item) STORE AS
                                      { LOB segname [ (TABLESPACE tablespace)
```

```
Subclause
                             Syntax
                                        (TABLESPACE tablespace)
                                    | VARRAY varray item STORE AS LOB
                             LOB segname
                                 ] . . .
                             1
password parameters
                              { FAILED LOGIN ATTEMPTS
                                PASSWORD LIFE TIME
                                | PASSWORD REUSE TIME
                                PASSWORD REUSE MAX
                                PASSWORD LOCK TIME
                                 PASSWORD GRACE TIME
                                { expr | UNLIMITED | DEFAULT }
                              | PASSWORD VERIFY FUNCTION
                                   { function | NULL | DEFAULT }
                              { MINIMUM EXTENT integer [ K | M ]
permanent tablespace clause
                               BLOCKSIZE integer [ K ]
                               logging clause
                               FORCE LOGGING
                              DEFAULT [ table compression ]
                               storage clause
                              | { ONLINE | OFFLINE }
                               extent management clause
                               segment management clause
                              flashback_mode_clause
                                [ MINIMUM EXTENT integer [ K | M ]
                                BLOCKSIZE integer [ K ]
                                | logging clause
                                FORCE LOGGING
                                | DEFAULT [ table compression ]
                                 storage clause
                                | { ONLINE | OFFLINE }
                                extent management clause
                                segment management clause
                                | flashback mode clause
                               ] . . .
physical attributes clause
                              [ { PCTFREE integer
                                 PCTUSED integer
                                 INITRANS integer
                                 storage_clause
                                  [ PCTFREE integer
                                  PCTUSED integer
                                  | INITRANS integer
                                  | storage_clause
                                 ] . . .
                             ]
```

```
Subclause
                             Syntax
physical properties
                             { segment attributes clause
                                [ table_compression ]
                              ORGANIZATION
                                  { HEAP
                                        [ segment attributes clause ]
                                        [ table compression ]
                                   INDEX
                                        [ segment attributes clause ]
                                        index org table clause
                                   EXTERNAL
                                       external_table_clause
                               CLUSTER cluster (column [, column ]...)
                             PRAGMA RESTRICT REFERENCES
pragma clause
                             ({ method_name | DEFAULT } ,
                              { RNDS | WNDS | RNPS | WNPS | TRUST }
                                [, { RNDS | WNDS | RNPS | WNPS | TRUST } ]...
procedure declaration
                             PROCEDURE name (parameter datatype
                                              [, parameter datatype ]...)
                                 { IS | AS } { pl/sql_block | call_spec }
                             PROCEDURE name
procedure spec
                              (parameter datatype [, parameter datatype ]...)
                              [ { IS | AS } call spec ]
proxy authentication
                              { AUTHENTICATION REQUIRED
                               AUTHENTICATED USING
                                { PASSWORD
                                DISTINGUISHED NAME
                                | CERTIFICATE [ TYPE 'type' ]
                                  [ VERSION 'version' ]
                             { GRANT | REVOKE }
proxy_clause
                             CONNECT THROUGH proxy
                             [ WITH { ROLE { role_name
                                              [, role name]...
                                            | ALL EXCEPT role name
                                                         [, role name]...
                                      NO ROLES
                             [ proxy_authentication ]
```

```
Subclause
                              Syntax
qualified_disk_clause
                              search string
                              [ NAME disk name ]
                              [ SIZE size clause ]
                              [ FORCE | NOFORCE ]
qualified template clause
                              template name
                              ATTRIBUTES
                              ([ MIRROR | UNPROTECTED ]
                               [ FINE | COARSE ]
query_partition_clause
                              PARTITION BY
                                { value expr[, value expr ]...
                                ( value expr[, value expr ]... )
query_table_expression
                              { query_name
                              [ schema. ]
                                { table [ { PARTITION (partition)
                                            SUBPARTITION (subpartition)
                                          [ sample clause ]
                                         [ sample clause ]
                                          @ dblink
                                  { view | materialized view } [ @ dblink ]
                                (subquery [ subquery restriction clause ])
                                table collection expression
                              QUIESCE RESTRICTED | UNQUIESCE
quiesce clauses
range partitioning
                              PARTITION BY RANGE (column[, column]...)
                              (PARTITION [ partition ]
                              range values clause
                              table partition description
                                [, PARTITION [ partition ]
                                   range values clause
                                   table partition description
                                ] . . .
                              )
                              VALUES LESS THAN
range values clause
                                ({ value | MAXVALUE }
                                   [, { value | MAXVALUE } ]...
rebalance_diskgroup_clause
                              REBALANCE [ POWER integer ]
```

```
Subclause
                            Syntax
rebuild clause
                            REBUILD
                              [ { PARTITION partition
                                 SUBPARTITION subpartition
                              | { REVERSE | NOREVERSE }
                              ]
                              [ parallel clause
                               TABLESPACE tablespace
                               PARAMETERS ('ODCI parameters')
                              | COMPUTE STATISTICS
                               physical_attributes_clause
                              key compression
                              | logging clause
                                [ parallel clause
                                TABLESPACE tablespace
                                | PARAMETERS ('ODCI parameters')
                                 ONLINE
                                 COMPUTE STATISTICS
                                physical attributes clause
                                key_compression
                                logging clause
                                ] . . .
records per block clause
                            { MINIMIZE | NOMINIMIZE } RECORDS PER BLOCK
recover_clause
                            { TIMEOUT integer | NOTIMEOUT }
                              { NODELAY | DEFAULT DELAY | DELAY integer }
                             NEXT integer
                             { EXPIRE integer | NO EXPIRE }
                            | parallel clause
                            USING CURRENT LOGFILE
                            UNTIL CHANGE integer
                            | THROUGH { [ THREAD integer ] SEQUENCE integer
                                       ALL ARCHIVELOG
                                        { ALL | LAST | NEXT } SWITCHOVER
                              [ { DISCONNECT [ FROM SESSION ]
                                | { TIMEOUT integer | NOTIMEOUT }
                              | { NODELAY | DEFAULT DELAY | DELAY integer }
                              | NEXT integer
                               { EXPIRE integer | NO EXPIRE }
                               parallel clause
                               USING CURRENT LOGFILE
                               UNTIL CHANGE integer
                              THROUGH { [ THREAD integer ] SEQUENCE
                            integer
                                        ALL ARCHIVELOG
```

Subclause	Syntax
	{ ALL LAST NEXT } SWITCHOVER
recovery_clauses	{ general_recovery managed_standby_recovery BEGIN BACKUP END BACKUP }
redo_log_file_spec	<pre>['filename' ('filename' [, 'filename'])] [SIZE size_clause] [REUSE]</pre>
redo_thread_clauses	{ ENABLE DISABLE }
reference_model	REFERENCE reference_spreadsheet_name ON (subquery) spreadsheet_column_clauses [cell_reference_options]
references_clause	REFERENCES [schema.] { object_table view } [(column [, column])] [ON DELETE { CASCADE SET NULL }] [constraint_state]
referencing_clause	REFERENCING { OLD [AS] old NEW [AS] new PARENT [AS] parent } [OLD [AS] old NEW [AS] new PARENT [AS] parent]
register_logfile_clause	REGISTER [OR REPLACE] [PHYSICAL LOGICAL] LOGFILE [file_specification [, file_specification]] FOR logminer_session_name

```
Subclause
                              Syntax
relational properties
                              { column datatype [ SORT ]
                                  [ DEFAULT expr ]
                                  [ inline constraint
                                    [ inline constraint ]...
                                  | inline_ref_constraint
                              | { out_of_line_constraint
                                 out_of_line_ref_constraint
                                 supplemental logging props
                                [, { column datatype [ SORT ]
                                       [ DEFAULT expr ]
                                       [ inline constraint
                                         [ inline constraint ]...
                                       | inline ref constraint
                                   | { out of line constraint
                                      out of line ref constraint
                                      supplemental logging props
                               ] . . .
                              CREATE [ GLOBAL TEMPORARY ] TABLE [ schema.
relational table
                             ltable
                                 [ (relational properties) ]
                                 [ ON COMMIT { DELETE | PRESERVE } ROWS ]
                                 [ physical properties ]
                                 [ table properties ] ;
rename column clause
                             RENAME COLUMN old name TO new name
rename_index_partition
                             RENAME { PARTITION partition
                                     | SUBPARTITION subpartition }
                                TO new_name
rename partition subpart
                             RENAME { PARTITION | SUBPARTITION }
                               current_name TO new_name
replace_type_clause
                             REPLACE [ invoker rights clause ] AS OBJECT
                                 (attribute datatype [, attribute datatype
                                 [, element spec [, element spec ]...])
resize disk clauses
                             RESIZE
                              { ALL [ SIZE size clause ]
                              DISK
                                disk name [ SIZE size clause ]
                                 [, disk name [ SIZE size clause ] ]...
                              DISKS IN FAILGROUP
```

```
Subclause
                             Syntax
                                 failgroup name [ SIZE size clause ]
                                 [, failgroup name [ SIZE size clause ] ]...
                             }
                             { SESSIONS PER USER
resource parameters
                                 CPU PER SESSION
                                CPU PER CALL
                                CONNECT TIME
                                 IDLE TIME
                                 LOGICAL READS PER SESSION
                                 LOGICAL READS PER CALL
                                 COMPOSITE LIMIT
                                { integer | UNLIMITED | DEFAULT }
                              PRIVATE SGA
                                { integer [ K | M ] | UNLIMITED | DEFAULT }
restricted session clauses
                             { ENABLE | DISABLE } RESTRICTED SESSION
                             { RETURN datatype [ { IS | AS } call spec ]
return_clause
                               sqlj_object_type_sig
                             RETURN { UPDATED | ALL } ROWS
return rows clause
returning clause
                             RETURNING expr [, expr ]...
                             INTO data item [, data item ]...
revoke object privileges
                             { object privilege | ALL [ PRIVILEGES ] }
                                [, { object privilege | ALL [ PRIVILEGES ] }
                             ] . . .
                             on object clause
                             FROM grantee clause
                             [ CASCADE CONSTRAINTS | FORCE ]
revoke system privileges
                             { system privilege
                               role
                               ALL PRIVILEGES
                                [, { system privilege
                                   role
                                   | ALL PRIVILEGES
                               ] . . .
                             FROM grantee clause
                             { ROLLUP | CUBE } (grouping expression list)
rollup cube clause
```

```
Subclause
                             Syntax
routine clause
                              [schema.] [type. | package.]
                              { function | procedure | method }
                              [ @dblink name ]
                              ([argument[, argument]...])
                              { ENABLE | DISABLE } ROW MOVEMENT
row movement clause
                             SAMPLE [ BLOCK ]
sample clause
                                     (sample percent)
                                     [ SEED (seed value) ]
                              { object option [, object option ]... | ALL }
schema object clause
                             auditing on clause
                              { SCOPE FOR
scoped table ref constraint
                                ({ ref column | ref attribute })
                               IS [ schema. ] { scope table name | c alias }
                                [, SCOPE FOR
                                   ({ ref_column | ref_attribute })
                                  IS [ schema. ] { scope table name | c alias
                               ] . . .
searched case expression
                             WHEN condition THEN return expr
                              [ WHEN condition THEN return expr ]...
                             GUARD { ALL | STANDBY | NONE }
security clause
segment attributes clause
                              { physical attributes clause
                               TABLESPACE tablespace
                               logging_clause
                                [ physical attributes clause
                                | TABLESPACE tablespace
                                | logging clause
                               ] . . .
                             SEGMENT SPACE MANAGEMENT { MANUAL | AUTO }
segment management clause
select list
                               { query name.*
                                 [ schema. ]
                                  { table | view | materialized view } .*
                                 expr [ [ AS ] c alias ]
                                  [, { query_name.*
                                      [ schema. ]
                                       { table | view | materialized view } .*
```

```
Subclause
                              Syntax
                                       expr [ [ AS ] c alias ]
                                 ] . . .
                              }
set_subpartition_template
                              SET SUBPARTITION TEMPLATE
                                { (SUBPARTITION subpartition
                                       [ list values clause ]
                                       [ partitioning storage clause ]
                                     [, SUBPARTITION subpartition
                                           [ list values clause ]
                                           [ partitioning storage clause ]...
                                 hash_subpartition_quantity
set time zone clause
                              SET TIME ZONE =
                                '{ { + | - } hh : mi | time zone region }'
                              SHRINK SPACE [ COMPACT ] [ CASCADE ]
shrink clause
                              SHUTDOWN [ IMMEDIATE ] dispatcher name
shutdown dispatcher clause
simple case expression
                              expr WHEN comparison expr
                                  THEN return expr
                                   [ WHEN comparison expr
                                     THEN return expr ]...
single_column_for_loop
                              FOR dimension_column
                                { IN ( { literal
                                         [, literal ]...
                                         subquery
                                | [ LIKE pattern ]
                                 FROM literal TO literal
                                    { INCREMENT | DECREMENT } literal
                              insert into clause
single table insert
                              { values clause [ returning clause ]
                               subquery
size clause
                              integer [ K | M | G | T ]
```

Subclause	Syntax
split_index_partition	SPLIT PARTITION partition_name_old AT (value [, value]) [INTO (index_partition_description,
split_table_partition	<pre>SPLIT PARTITION current_partition { AT VALUES } (value [, value]) [INTO (partition_spec, partition_spec)] [update_index_clauses] [parallel_clause]</pre>
split_table_subpartition	<pre>SPLIT SUBPARTITION subpartition VALUES ({ value NULL }</pre>
sql_statement_clause	<pre>{ { statement_option ALL } [, { statement_option ALL }] { system_privilege ALL PRIVILEGES } [, { system_privilege ALL PRIVILEGES }] } [auditing_by_clause]</pre>
sqlj_object_type	EXTERNAL NAME java_ext_name LANGUAGE JAVA USING (SQLData CustomDatum OraData)
sqlj_object_type_attr	EXTERNAL NAME 'field_name'
sqlj_object_type_sig	RETURN { datatype SELF AS RESULT } EXTERNAL { VARIABLE NAME 'java_static_field_name'
standby_database_clauses	<pre>(activate_standby_db_clause maximize_standby_db_clause register_logfile_clause commit_switchover_clause start_standby_clause stop_standby_clause) [parallel_clause]</pre>

```
Subclause
                             Syntax
start standby clause
                             START LOGICAL STANDBY APPLY
                             [ IMMEDIATE ]
                             [ NODELAY ]
                             [ NEW PRIMARY dblink
                             | INITIAL [ scn value ]
                             | { SKIP FAILED TRANSACTION | FINISH }
                             { MOUNT [ { STANDBY | CLONE } DATABASE ]
startup_clauses
                             OPEN { [ READ WRITE ]
                                       [ RESETLOGS | NORESETLOGS ]
                                      [ UPGRADE | DOWNGRADE ]
                                      READ ONLY
                             { STOP | ABORT }
stop standby clause
                             LOGICAL STANDBY APPLY
storage clause
                             STORAGE
                                ({ INITIAL integer [ K | M ]
                                  NEXT integer [ K | M ]
                                   MINEXTENTS integer
                                   MAXEXTENTS { integer | UNLIMITED }
                                   PCTINCREASE integer
                                  FREELISTS integer
                                  FREELIST GROUPS integer
                                  OPTIMAL [ integer [ K | M ]
                                            NULL
                                   BUFFER_POOL { KEEP | RECYCLE | DEFAULT }
                                    [ INITIAL integer [ K | M ]
                                    | NEXT integer [ K | M ]
                                    | MINEXTENTS integer
                                    | MAXEXTENTS { integer | UNLIMITED }
                                     PCTINCREASE integer
                                     FREELISTS integer
                                     FREELIST GROUPS integer
                                    OPTIMAL [ integer [ K | M ]
                                              NULL
                                   | BUFFER POOL { KEEP | RECYCLE | DEFAULT }
                                   ] . . .
                                )
                             { ORDER | CLUSTER } BY (column [, column ]...)
streaming clause
subpartition by hash
                             SUBPARTITION BY HASH (column [, column ]...)
                                [ SUBPARTITIONS quantity
                                      [ STORE IN (tablespace [, tablespace
                             ]...) ]
```

```
Subclause
                              Syntax
                                 | subpartition template
                                 ]
subpartition by list
                              SUBPARTITION BY LIST (column)
                                 [ subpartition template ]
                              SUBPARTITION [ subpartition ]
subpartition spec
                                 [ list values clause ]
                                 [ partitioning storage clause ]
subpartition_template
                              SUBPARTITION TEMPLATE
                                 (SUBPARTITION subpartition
                                     [ list values clause ]
                                     [ partitioning storage clause ]
                                   [, SUBPARTITION subpartition
                                         [ list values clause ]
                                         [ partitioning storage clause ]
                                   ]
                                 | hash subpartition quantity
                              { MEMBER | STATIC }
subprogram declaration
                                 { procedure declaration
                                  function declaration
                                   constructor declaration
subprogram spec
                              { MEMBER | STATIC }
                              { procedure spec | function spec }
subquery
                              [ subquery factoring clause ]
                              SELECT
                                 [ hint ]
                                 [ { { DISTINCT | UNIQUE }
                                     ALL
                                 ]
                                 select list
                                 FROM table reference
                                      [, table reference]...
                                 [ where clause ]
                                 [ hierarchical_query_clause ]
                                 [ group by clause ]
                                 [ HAVING condition ]
                                 [ model clause ]
                                 [ { UNION [ ALL ]
                                     INTERSECT
                                     MINUS
                                   (subquery)
```

Subclause	Syntax
] [order_by_clause]
subquery_factoring_clause	WITH query_name AS (subquery) [, query_name AS (subquery)]
subquery_restriction_clause	WITH { READ ONLY CHECK OPTION [CONSTRAINT constraint] }
substitutable_column_clause	[ELEMENT] IS OF [TYPE] ([ONLY] type) [NOT] SUBSTITUTABLE AT ALL LEVELS
supplemental_db_logging	{ ADD DROP } SUPPLEMENTAL LOG { DATA supplemental_id_key_clause }
supplemental_id_key_clause	DATA ({ ALL PRIMARY KEY UNIQUE FOREIGN KEY } [, { ALL PRIMARY KEY UNIQUE FOREIGN KEY J) COLUMNS
supplemental_log_grp_clause	GROUP log_group (column [NO LOG] [, column [NO LOG]]) [ALWAYS]
supplemental_logging_props	<pre>{ supplemental_log_grp_clause supplemental_id_key_clause }</pre>
supplemental_table_logging	{ ADD SUPPLEMENTAL LOG

```
Subclause
                              Syntax
                                    ] . . .
                              DROP SUPPLEMENTAL LOG
                                       { supplemental id key clause
                                         GROUP log_group
                                     [, SUPPLEMENTAL LOG
                                          { supplemental_id_key_clause
                                            GROUP log group
                                     ] . . .
table collection expression
                              TABLE (collection expression) [ (+) ]
                              { COMPRESS | NOCOMPRESS }
table compression
                              [ schema. ]table [ t alias ]
table index clause
                              (index expr [ ASC | DESC ]
                                [, index_expr [ ASC | DESC ] ]...)
                              [ index properties ]
table_partition_description
                              [ segment_attributes_clause ]
                              [ table_compression | key_compression ]
                              [ OVERFLOW [ segment attributes clause ] ]
                              [ { LOB_storage clause
                                 | varray_col_properties
                                  [ LOB storage clause
                                  | varray col properties
                                  ] . . .
                              [ partition level subpartition ]
table partitioning clauses
                              { range partitioning
                                hash partitioning
                                list_partitioning
                                composite_partitioning
table properties
                              [ column properties ]
                              [ table partitioning clauses ]
                              [ CACHE | NOCACHE ]
                              [ parallel clause ]
                              [ ROWDEPENDENCIES | NOROWDEPENDENCIES ]
                              [ enable disable clause ]
                                [ enable disable clause ]...
                              [ row movement clause ]
                              [ AS subquery ]
```

```
Subclause
                             Syntax
table reference
                             { ONLY
                                (query table expression)
                                [ flashback query clause ]
                                [talias]
                             | query table expression
                                [ flashback query clause ]
                                [talias]
                               (join clause)
                               join clause
                             { EXTENT MANAGEMENT LOCAL
tablespace clauses
                             DATAFILE file specification
                                         [, file specification ]...
                             | SYSAUX DATAFILE file specification
                                                [, file specification ]...
                             | default_tablespace
                              default_temp_tablespace
                               undo tablespace
tablespace group clause
                             TABLESPACE GROUP { tablespace group name | '' }
tablespace logging clauses
                             { logging clause
                               [ NO ] FORCE LOGGING
                             RETENTION { GUARANTEE | NOGUARANTEE }
tablespace retention clause
tablespace state clauses
                             { ONLINE
                               OFFLINE [ NORMAL | TEMPORARY | IMMEDIATE ]
                               READ { ONLY |
                                             WRITE }
                               { PERMANENT | TEMPORARY }
temporary tablespace clause
                             TEMPORARY TABLESPACE tablespace
                                [ TEMPFILE file specification
                                           [, file specification ]...
                                [ tablespace group clause ]
                                [ extent management clause ]
text
                              [ N | n ]
                              { 'c [ c ]...'
                               { Q | q }
                                'quote delimiter c [ c ]... quote delimiter'
```

Subclause	Syntax
trace_file_clause	TRACE [AS 'filename' [REUSE]] [RESETLOGS NORESETLOGS]
truncate_partition_subpart	TRUNCATE { PARTITION partition SUBPARTITION subpartition } [{ DROP REUSE } STORAGE] [update_index_clauses [parallel_clause]]
undo_tablespace	[BIGFILE SMALLFILE] UNDO TABLESPACE tablespace [TABLESPACE file_specification
undo_tablespace_clause	UNDO TABLESPACE tablespace [DATAFILE file_specification
undrop_disk_clause	UNDROP DISKS
update_all_indexes_clause	<pre>UPDATE INDEXES [(index ({ update_index_partition update_index_subpartition })</pre>
update_global_index_clause	{ UPDATE INVALIDATE } GLOBAL INDEXES
update_index_clauses	<pre>{ update_global_index_clause update_all_indexes_clause }</pre>
update_index_partition	PARTITION [partition] [index_partition_description [index_subpartition_clause]] [, PARTITION [partition] [index_partition_description

```
Subclause
                              Syntax
                                      [ index subpartition clause ]
                                    ]
                              ] . . .
update index subpartition
                              SUBPARTITION [ subpartition ]
                                 [ TABLESPACE tablespace ]
                              [, SUBPARTITION [ subpartition ]
                                    [ TABLESPACE tablespace ]
                              ] . . .
update set clause
                              SET
                              { (column [, column ]...) = (subquery)
                                column = { expr | (subquery) | DEFAULT }
                                   [, { (column [, column]...) = (subquery)
                                      column = { expr | (subquery) | DEFAULT
                              | VALUE (t_alias) = { expr | (subquery) }
upgrade table clause
                              UPGRADE [ [NOT ] INCLUDING DATA ]
                                 [ column properties ]
using function clause
                              USING [ schema. ] [ package. | type.
                             ]function name
using index clause
                              USING INDEX
                                { [ schema. ]index
                                 (create index statement)
                                | index properties
using statistics type
                              USING { [ schema. ] statistics type | NULL }
                              USING [ schema. ]implementation type
using type clause
                              [ array DML clause ]
validation clauses
                              { VALIDATE REF UPDATE
                                   [ SET DANGLING TO NULL ]
                              | VALIDATE STRUCTURE
                                  [ CASCADE ]
                                   [ into clause ]
                                   { OFFLINE | ONLINE }
                              }
```

```
Subclause
                              Syntax
                              VALUES ({ expr | DEFAULT }
values clause
                                        [, { expr | DEFAULT } ]...
varray_col_properties
                             VARRAY varray item
                                 { [ substitutable column clause ]
                                   STORE AS LOB
                                      { [ LOB_segname ] (LOB_parameters)
                                      LOB segname
                                 | substitutable_column_clause
where clause
                             WHERE condition
                              { ROWS | RANGE }
windowing clause
                              { BETWEEN
                                { UNBOUNDED PRECEDING
                                CURRENT ROW
                                | value expr { PRECEDING | FOLLOWING }
                               AND
                                { UNBOUNDED FOLLOWING
                                CURRENT ROW
                                | value expr { PRECEDING | FOLLOWING }
                               { UNBOUNDED PRECEDING
                                 CURRENT ROW
                                 value_expr PRECEDING
                              }
XML_attributes_clause
                             XMLATTRIBUTES
                                (value_expr [ AS c_alias ]
                                  [, value_expr [ AS c_alias ]...
                              [ XMLSCHEMA XMLSchema URL ]
XMLSchema spec
                              ELEMENT { element | XMLSchema URL # element }
                             XMLTYPE [ COLUMN ] column
XMLType column properties
                                 [ XMLType storage ]
                                 [ XMLSchema spec ]
                             STORE AS
XMLType storage
                                 { OBJECT RELATIONAL
                                 | CLOB [ { LOB segname [ (LOB parameters) ]
                                           LOB parameters
                                        ]
```

Subclause	Syntax
XMLType_table	<pre>CREATE TABLE [GLOBAL TEMPORARY] TABLE [schema.]table OF XMLTYPE [(oject_properties)] [XMLTYPE XMLType_storage] [XMLSchema_spec] [ON COMMIT { DELETE PRESERVE } ROWS] [OID_clause] [OID_index_clause] [physical_properties] [table_properties] ;</pre>
XMLType_view_clause	OF XMLTYPE [XMLSchema_spec] WITH OBJECT IDENTIFIER { DEFAULT (expr [, expr]) }