
**Information technology — Database
languages — SQL —**

**Part 2:
Foundation (SQL/Foundation)**

*Technologies de l'information — Langages de base de données —
SQL —*

Partie 2: Fondations (SQL/Fondations)

Sample Document

get full document from standards.iteh.ai

Sample Document

get full document from standards.iteh.ai



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents	Page
Foreword.....	xxi
Introduction.....	xxii
1 Scope.....	1
2 Normative references.....	3
2.1 ISO and IEC standards.....	3
2.2 Other international standards.....	4
3 Definitions, notations, and conventions.....	5
3.1 Definitions.....	5
3.1.1 Definitions taken from [ISO10646].....	5
3.1.2 Definitions taken from [ISO14651].....	5
3.1.3 Definitions taken from [Unicode].....	5
3.1.4 Definitions taken from [ISO8601].....	6
3.1.5 Definitions taken from [ISO9075-1].....	6
3.1.6 Definitions provided in Part 2.....	7
3.2 Notation.....	13
3.3 Conventions.....	13
3.3.1 Use of terms.....	13
3.3.1.1 Other terms.....	14
4 Concepts.....	15
4.1 Data types.....	15
4.1.1 General introduction to data types.....	15
4.1.2 Naming of predefined types.....	16
4.1.3 Host language data types.....	17
4.1.4 Data type terminology.....	17
4.1.5 Properties of distinct.....	19
4.2 Character strings.....	20
4.2.1 Introduction to character strings.....	20
4.2.2 Comparison of character strings.....	21
4.2.3 Operations involving character strings.....	22
4.2.3.1 Regular expression syntaxes.....	22
4.2.3.2 Operators that operate on character strings and return character strings.....	22
4.2.3.3 Other operators involving character strings.....	24
4.2.3.4 Operations involving large object character strings.....	25
4.2.4 Character repertoires.....	26
4.2.5 Character encoding forms.....	27

4.2.6	Collations.	28
4.2.7	Character sets.	29
4.2.8	Universal character sets.	31
4.3	Binary strings.	31
4.3.1	Introduction to binary strings.	31
4.3.2	Binary string comparison.	31
4.3.3	Operations involving binary strings.	32
4.3.3.1	Operators that operate on binary strings and return binary strings.	32
4.3.3.2	Other operators involving binary strings.	32
4.4	Numbers.	33
4.4.1	Introduction to numbers.	33
4.4.2	Characteristics of numbers.	33
4.4.3	Operations involving numbers.	35
4.5	Boolean types.	36
4.5.1	Introduction to Boolean types.	36
4.5.2	Comparison and assignment of booleans.	36
4.5.3	Operations involving booleans.	37
4.5.3.1	Operations on booleans that return booleans.	37
4.5.3.2	Other operators involving booleans.	37
4.6	Datetimes and intervals.	37
4.6.1	Introduction to datetimes and intervals.	37
4.6.2	Datetimes.	38
4.6.3	Intervals.	40
4.6.4	Operations involving datetimes and intervals.	42
4.7	User-defined types.	43
4.7.1	Introduction to user-defined types.	43
4.7.2	Distinct types.	43
4.7.3	Structured types.	44
4.7.3.1	Introduction to structured types.	44
4.7.3.2	Observer functions and mutator functions.	44
4.7.3.3	Constructors.	44
4.7.3.4	Subtypes and supertypes.	45
4.7.4	Methods.	46
4.7.5	User-defined type comparison and assignment.	47
4.7.6	Transforms for user-defined types.	48
4.7.7	User-defined type descriptor.	48
4.8	Row types.	50
4.9	Reference types.	50
4.9.1	Introduction to reference types.	50
4.9.2	Operations involving references.	51
4.10	Collection types.	52
4.10.1	Introduction to collection types.	52
4.10.2	Arrays.	52
4.10.3	Multisets.	53

4.10.4	Collection comparison and assignment.	53
4.10.5	Operations involving arrays.	53
4.10.5.1	Operators that operate on array values and return array elements.	53
4.10.5.2	Operators that operate on array values and return array values.	54
4.10.5.3	Operators that operate on array values and return numbers.	54
4.10.6	Operations involving multisets.	54
4.10.6.1	Operators that operate on multisets and return multiset elements.	54
4.10.6.2	Operators that operate on multisets and return multisets.	54
4.10.6.3	Operators that operate on multiset values and return numbers.	54
4.11	Data conversions.	55
4.12	Domains.	56
4.13	Columns, fields, and attributes.	56
4.14	Periods.	58
4.14.1	Introduction to periods.	58
4.14.2	Operations involving periods.	59
4.15	Tables.	59
4.15.1	Introduction to tables.	59
4.15.2	Base tables.	60
4.15.2.1	Regular persistent base tables.	60
4.15.2.2	System-versioned tables.	60
4.15.2.3	Temporary tables.	60
4.15.3	Derived tables.	61
4.15.4	Transient tables.	62
4.15.5	Unique identification of tables.	62
4.15.6	Table updatability.	62
4.15.7	Table descriptors.	63
4.15.8	Syntactic analysis of derived tables and cursors.	65
4.15.9	Referenceable tables, subtables, and supertables.	67
4.15.10	Operations involving tables.	68
4.15.11	Range variables.	70
4.15.12	Identity columns.	71
4.15.13	Base columns and generated columns.	72
4.15.14	Grouped tables.	72
4.15.15	Windowed tables.	72
4.16	Data analysis operations (involving tables).	74
4.16.1	Introduction to data analysis operations.	74
4.16.2	Group functions.	74
4.16.3	Window functions.	74
4.16.4	Aggregate functions.	77
4.16.5	Row pattern measures.	79
4.17	Row pattern matching.	80
4.17.1	Matching rows with a pattern.	80
4.17.2	Row pattern matching illustrated.	82
4.17.3	Row pattern partitioning.	85

4.17.4	Row ordering.	85
4.17.5	Row pattern measure columns.	85
4.17.6	Number of rows per match.	85
4.17.7	Skipping rows after matching.	86
4.18	Row patterns.	86
4.19	Unions of row pattern variables.	88
4.20	Defining Boolean conditions.	88
4.21	Scalar expressions in row pattern matching.	89
4.21.1	Running vs. final semantics.	89
4.21.2	Row pattern navigation operations.	89
4.21.3	Row pattern classifier function.	90
4.21.4	Row pattern match number function.	90
4.22	Determinism.	90
4.23	Integrity constraints.	91
4.23.1	Overview of integrity constraints.	91
4.23.2	Checking of constraints.	92
4.23.3	Table constraints.	92
4.23.3.1	Introduction to table constraints.	92
4.23.3.2	Unique constraints.	93
4.23.3.3	Referential constraints.	93
4.23.3.4	Table check constraints.	96
4.23.4	Domain constraints.	96
4.23.5	Assertions.	97
4.24	Functional dependencies.	97
4.24.1	Overview of functional dependency rules and notations.	97
4.24.2	General rules and definitions.	98
4.24.3	Known functional dependencies in a base table.	99
4.24.4	Known functional dependencies in a viewed table.	99
4.24.5	Known functional dependencies in a transition table.	100
4.24.6	Known functional dependencies in <table value constructor>.	100
4.24.7	Known functional dependencies in a <joined table>.	100
4.24.8	Known functional dependencies in a <table primary>.	102
4.24.9	Known functional dependencies in a <table factor>.	103
4.24.10	Known functional dependencies in a <table reference>.	103
4.24.11	Known functional dependencies in the result of a <from clause>.	103
4.24.12	Known functional dependencies in the result of a <where clause>.	104
4.24.13	Known functional dependencies in the result of a <group by clause>.	104
4.24.14	Known functional dependencies in the result of a <having clause>.	105
4.24.15	Known functional dependencies in a <query specification>.	105
4.24.16	Known functional dependencies in a <query expression>.	106
4.25	Candidate keys.	106
4.26	SQL-schemas.	107
4.27	Sequence generators.	108
4.27.1	General description of sequence generators.	108

4.27.2	Operations involving sequence generators.	109
4.28	SQL-client modules.	110
4.29	Embedded syntax.	111
4.30	Dynamic SQL concepts.	111
4.30.1	Introduction to dynamic SQL.	111
4.30.2	Overview of dynamic SQL for constructed SQL-statements.	112
4.30.3	Overview of dynamic SQL for polymorphic table functions.	113
4.30.4	Dynamic SQL statements and descriptor areas.	113
4.31	Direct invocation of SQL.	115
4.32	Externally-invoked procedures.	115
4.33	SQL-invoked routines.	115
4.33.1	Overview of SQL-invoked routines.	115
4.33.2	Characteristics of SQL-invoked routines.	118
4.33.3	Execution of conventional SQL-invoked routines.	120
4.33.4	Invocation of polymorphic table functions.	121
4.33.5	Routine descriptors.	126
4.33.6	Result sets returned by SQL-invoked procedures.	129
4.34	SQL-paths.	130
4.35	Host parameters.	130
4.35.1	Overview of host parameters.	130
4.35.2	Status parameters.	131
4.35.3	Data parameters.	131
4.35.4	Indicator parameters.	131
4.35.5	Locators.	132
4.36	Diagnostics area.	132
4.37	Host languages.	134
4.38	Cursors.	134
4.38.1	General description of cursors.	134
4.38.2	Operations on and using cursors.	138
4.39	SQL-statements.	139
4.39.1	Classes of SQL-statements.	139
4.39.2	SQL-statements classified by function.	141
4.39.2.1	SQL-schema statements.	141
4.39.2.2	SQL-data statements.	142
4.39.2.3	SQL-data change statements.	143
4.39.2.4	SQL-transaction statements.	143
4.39.2.5	SQL-connection statements.	144
4.39.2.6	SQL-control statements.	144
4.39.2.7	SQL-session statements.	144
4.39.2.8	SQL-diagnostics statements.	145
4.39.2.9	SQL-dynamic statements.	145
4.39.2.10	SQL embedded exception declaration.	145
4.39.3	SQL-statements and SQL-data access indication.	146
4.39.4	SQL-statements and transaction states.	146

4.39.5	SQL-statement atomicity and statement execution contexts.	148
4.39.6	Embeddable SQL-statements.	149
4.39.7	Preparable and immediately executable SQL-statements.	151
4.39.8	Directly executable SQL-statements.	153
4.40	Basic security model.	154
4.40.1	Authorization identifiers.	154
4.40.1.1	SQL-session authorization identifiers.	154
4.40.1.2	SQL-client module authorization identifiers.	155
4.40.1.3	SQL-schema authorization identifiers.	155
4.40.2	Privileges.	155
4.40.3	Roles.	158
4.40.4	Security model definitions.	158
4.41	SQL-transactions.	159
4.41.1	General description of SQL-transactions.	159
4.41.2	Savepoints.	160
4.41.3	Properties of SQL-transactions.	160
4.41.4	Isolation levels of SQL-transactions.	161
4.41.5	Implicit rollbacks.	162
4.41.6	Effects of SQL-statements in an SQL-transaction.	163
4.41.7	Encompassing transactions.	163
4.41.7.1	Encompassing transaction belonging to an external agent.	163
4.41.7.2	Encompassing transaction belonging to the SQL-agent.	164
4.42	SQL-connections.	164
4.43	SQL-sessions.	165
4.43.1	General description of SQL-sessions.	165
4.43.2	SQL-session identification.	166
4.43.3	SQL-session properties.	167
4.43.4	SQL-session context management.	169
4.43.5	Execution contexts.	169
4.43.6	Routine execution context.	170
4.44	Triggers.	170
4.44.1	General description of triggers.	170
4.44.2	Trigger execution.	172
4.45	Client-server operation.	174
4.46	JSON data handling in SQL.	174
4.46.1	Introduction.	174
4.46.2	Implied JSON data model.	175
4.46.3	SQL/JSON data model.	176
4.46.4	SQL/JSON functions.	177
4.46.5	Overview of SQL/JSON path language.	178
5	Lexical elements.	181
5.1	<SQL terminal character>.	181
5.2	<token> and <separator>.	185

5.3	<literal>.....	195
5.4	Names and identifiers.....	205
6	Scalar expressions.....	217
6.1	<data type>.....	217
6.2	<field definition>.....	230
6.3	<value expression primary>.....	232
6.4	<value specification> and <target specification>.....	234
6.5	<contextually typed value specification>.....	240
6.6	<identifier chain>.....	242
6.7	<column reference>.....	246
6.8	<SQL parameter reference>.....	249
6.9	<set function specification>.....	250
6.10	<window function>.....	253
6.11	<nested window function>.....	262
6.12	<case expression>.....	265
6.13	<cast specification>.....	269
6.14	<next value expression>.....	287
6.15	<field reference>.....	289
6.16	<subtype treatment>.....	290
6.17	<method invocation>.....	292
6.18	<static method invocation>.....	294
6.19	<new specification>.....	296
6.20	<attribute or method reference>.....	298
6.21	<dereference operation>.....	300
6.22	<method reference>.....	301
6.23	<reference resolution>.....	303
6.24	<array element reference>.....	305
6.25	<multiset element reference>.....	306
6.26	<row pattern navigation operation>.....	307
6.27	<JSON value function>.....	311
6.28	<value expression>.....	313
6.29	<numeric value expression>.....	317
6.30	<numeric value function>.....	319
6.31	<string value expression>.....	334
6.32	<string value function>.....	339
6.33	<JSON value constructor>.....	357
6.34	<JSON query>.....	364
6.35	<datetime value expression>.....	366
6.36	<datetime value function>.....	369
6.37	<interval value expression>.....	371
6.38	<interval value function>.....	376
6.39	<boolean value expression>.....	377
6.40	<array value expression>.....	382

6.41	<array value function>.....	384
6.42	<array value constructor>.....	386
6.43	<multiset value expression>.....	388
6.44	<multiset value function>.....	391
6.45	<multiset value constructor>.....	392
7	Query expressions.....	395
7.1	<row value constructor>.....	395
7.2	<row value expression>.....	398
7.3	<table value constructor>.....	400
7.4	<table expression>.....	402
7.5	<from clause>.....	403
7.6	<table reference>.....	406
7.7	<row pattern recognition clause>.....	425
7.8	<row pattern measures>.....	431
7.9	<row pattern common syntax>.....	433
7.10	<joined table>.....	438
7.11	<JSON table>.....	449
7.12	<where clause>.....	464
7.13	<group by clause>.....	465
7.14	<having clause>.....	474
7.15	<window clause>.....	476
7.16	<query specification>.....	491
7.17	<query expression>.....	502
7.18	<search or cycle clause>.....	520
7.19	<subquery>.....	525
8	Predicates.....	527
8.1	<predicate>.....	527
8.2	<comparison predicate>.....	529
8.3	<between predicate>.....	537
8.4	<in predicate>.....	538
8.5	<like predicate>.....	540
8.6	<similar predicate>.....	546
8.7	<regex like predicate>.....	552
8.8	<null predicate>.....	554
8.9	<quantified comparison predicate>.....	556
8.10	<exists predicate>.....	558
8.11	<unique predicate>.....	559
8.12	<normalized predicate>.....	560
8.13	<match predicate>.....	562
8.14	<overlaps predicate>.....	565
8.15	<distinct predicate>.....	567
8.16	<member predicate>.....	570
8.17	<submultiset predicate>.....	572

8.18	<set predicate>.....	574
8.19	<type predicate>.....	575
8.20	<period predicate>.....	577
8.21	<search condition>.....	582
8.22	<JSON predicate>.....	583
8.23	<JSON exists predicate>.....	585
9	Additional common rules.....	587
9.1	Retrieval assignment.....	587
9.2	Store assignment.....	593
9.3	Passing a value from a host language to the SQL-server.....	599
9.4	Passing a value from the SQL-server to a host language.....	603
9.5	Result of data type combinations.....	607
9.6	Subject routine determination.....	611
9.7	Type precedence list determination.....	613
9.8	Host parameter mode determination.....	617
9.9	Type name determination.....	619
9.10	Determination of identical values.....	621
9.11	Equality operations.....	623
9.12	Grouping operations.....	625
9.13	Multiset element grouping operations.....	627
9.14	Ordering operations.....	629
9.15	Collation determination.....	631
9.16	Execution of array-returning functions.....	633
9.17	Execution of multiset-returning functions.....	637
9.18	Compilation of an invocation of a polymorphic table function.....	638
9.19	Execution of an invocation of a polymorphic table function.....	642
9.20	Signatures of PTF component procedures.....	654
9.21	Invocation of a PTF component procedure.....	657
9.22	XQuery regular expression matching.....	660
9.23	XQuery regular expression replacement.....	663
9.24	Data type identity.....	665
9.25	Determination of a from-sql function.....	667
9.26	Determination of a from-sql function for an overriding method.....	668
9.27	Determination of a to-sql function.....	669
9.28	Determination of a to-sql function for an overriding method.....	670
9.29	Generation of the next value of a sequence generator.....	671
9.30	Creation of a sequence generator.....	673
9.31	Altering a sequence generator.....	676
9.32	Generation of the hierarchical <query expression> of a view.....	679
9.33	Determination of view privileges.....	681
9.34	Determination of view component privileges.....	683
9.35	Row pattern recognition in a sequence of rows.....	687
9.36	Parsing JSON text.....	691

9.37	Serializing an SQL/JSON item.	694
9.38	SQL/JSON path language: lexical elements.	696
9.39	SQL/JSON path language: syntax and semantics.	700
9.40	Casting an SQL/JSON sequence to an SQL type.	724
9.41	Serializing an SQL/JSON sequence to an SQL string type.	726
9.42	Converting a datetime to a formatted character string.	729
9.43	Converting a formatted character string to a datetime.	733
9.44	Datetime templates.	741
10	Additional common elements.	745
10.1	<interval qualifier>.	745
10.2	<language clause>.	749
10.3	<path specification>.	751
10.4	<routine invocation>.	752
10.5	<character set specification>.	784
10.6	<specific routine designator>.	786
10.7	<collate clause>.	789
10.8	<constraint name definition> and <constraint characteristics>.	790
10.9	<aggregate function>.	792
10.10	<sort specification>.	809
10.11	<JSON aggregate function>.	812
10.12	<JSON value expression>.	817
10.13	<JSON output clause>.	819
10.14	<JSON API common syntax>.	821
11	Schema definition and manipulation.	823
11.1	<schema definition>.	823
11.2	<drop schema statement>.	826
11.3	<table definition>.	829
11.4	<column definition>.	842
11.5	<default clause>.	848
11.6	<table constraint definition>.	852
11.7	<unique constraint definition>.	854
11.8	<referential constraint definition>.	857
11.9	<check constraint definition>.	863
11.10	<alter table statement>.	865
11.11	<add column definition>.	867
11.12	<alter column definition>.	869
11.13	<set column default clause>.	871
11.14	<drop column default clause>.	872
11.15	<set column not null clause>.	873
11.16	<drop column not null clause>.	874
11.17	<add column scope clause>.	876
11.18	<drop column scope clause>.	877
11.19	<alter column data type clause>.	879

11.20	<alter identity column specification>.....	883
11.21	<drop identity property clause>.....	885
11.22	<drop column generation expression clause>.....	886
11.23	<drop column definition>.....	887
11.24	<add table constraint definition>.....	889
11.25	<alter table constraint definition>.....	890
11.26	<drop table constraint definition>.....	891
11.27	<add table period definition>.....	894
11.28	<drop table period definition>.....	897
11.29	<add system versioning clause>.....	902
11.30	<drop system versioning clause>.....	903
11.31	<drop table statement>.....	905
11.32	<view definition>.....	908
11.33	<drop view statement>.....	920
11.34	<domain definition>.....	923
11.35	<alter domain statement>.....	926
11.36	<set domain default clause>.....	927
11.37	<drop domain default clause>.....	928
11.38	<add domain constraint definition>.....	929
11.39	<drop domain constraint definition>.....	930
11.40	<drop domain statement>.....	931
11.41	<character set definition>.....	933
11.42	<drop character set statement>.....	935
11.43	<collation definition>.....	937
11.44	<drop collation statement>.....	939
11.45	<transliteration definition>.....	941
11.46	<drop transliteration statement>.....	944
11.47	<assertion definition>.....	946
11.48	<drop assertion statement>.....	948
11.49	<trigger definition>.....	951
11.50	<drop trigger statement>.....	957
11.51	<user-defined type definition>.....	960
11.52	<attribute definition>.....	977
11.53	<alter type statement>.....	979
11.54	<add attribute definition>.....	980
11.55	<drop attribute definition>.....	982
11.56	<add original method specification>.....	984
11.57	<add overriding method specification>.....	990
11.58	<drop method specification>.....	995
11.59	<drop data type statement>.....	999
11.60	<SQL-invoked routine>.....	1002
11.61	<alter routine statement>.....	1032
11.62	<drop routine statement>.....	1035
11.63	<user-defined cast definition>.....	1037

11.64	<drop user-defined cast statement>.....	1039
11.65	<user-defined ordering definition>.....	1041
11.66	<drop user-defined ordering statement>.....	1045
11.67	<transform definition>.....	1047
11.68	<alter transform statement>.....	1050
11.69	<add transform element list>.....	1052
11.70	<drop transform element list>.....	1054
11.71	<drop transform statement>.....	1056
11.72	<sequence generator definition>.....	1059
11.73	<alter sequence generator statement>.....	1061
11.74	<drop sequence generator statement>.....	1063
12	Access control.....	1065
12.1	<grant statement>.....	1065
12.2	<grant privilege statement>.....	1070
12.3	<privileges>.....	1073
12.4	<role definition>.....	1077
12.5	<grant role statement>.....	1078
12.6	<drop role statement>.....	1080
12.7	<revoke statement>.....	1081
12.8	Grantor determination.....	1099
13	SQL-client modules.....	1101
13.1	<SQL-client module definition>.....	1101
13.2	<module name clause>.....	1106
13.3	<externally-invoked procedure>.....	1107
13.4	<SQL procedure statement>.....	1123
13.5	Data type correspondences.....	1130
14	Data manipulation.....	1143
14.1	<declare cursor>.....	1143
14.2	<cursor properties>.....	1145
14.3	<cursor specification>.....	1147
14.4	<open statement>.....	1150
14.5	<fetch statement>.....	1151
14.6	<close statement>.....	1155
14.7	<select statement: single row>.....	1156
14.8	<delete statement: positioned>.....	1160
14.9	<delete statement: searched>.....	1162
14.10	<truncate table statement>.....	1166
14.11	<insert statement>.....	1168
14.12	<merge statement>.....	1174
14.13	<update statement: positioned>.....	1184
14.14	<update statement: searched>.....	1186
14.15	<set clause list>.....	1191
14.16	<temporary table declaration>.....	1196

14.17	<free locator statement>.....	1198
14.18	<hold locator statement>.....	1199
15	Additional data manipulation rules.....	1201
15.1	Effect of opening a cursor.....	1201
15.2	Effect of receiving a result set.....	1204
15.3	Determination of the current row of a cursor.....	1205
15.4	Effect of closing a cursor.....	1208
15.5	Effect of a positioned delete.....	1209
15.6	Effect of a positioned update.....	1211
15.7	Effect of deleting rows from base tables.....	1214
15.8	Effect of deleting some rows from a derived table.....	1217
15.9	Effect of deleting some rows from a viewed table.....	1219
15.10	Effect of inserting tables into base tables.....	1221
15.11	Effect of inserting a table into a derived table.....	1224
15.12	Effect of inserting a table into a viewed table.....	1226
15.13	Effect of replacing rows in base tables.....	1228
15.14	Effect of replacing some rows in a derived table.....	1232
15.15	Effect of replacing some rows in a viewed table.....	1235
15.16	Execution of BEFORE triggers.....	1237
15.17	Execution of referential actions.....	1238
15.18	Execution of AFTER triggers.....	1244
15.19	Execution of triggers.....	1245
16	Control statements.....	1249
16.1	<call statement>.....	1249
16.2	<return statement>.....	1250
17	Transaction management.....	1251
17.1	<start transaction statement>.....	1251
17.2	<set transaction statement>.....	1253
17.3	<transaction characteristics>.....	1255
17.4	<set constraints mode statement>.....	1257
17.5	<savepoint statement>.....	1259
17.6	<release savepoint statement>.....	1260
17.7	<commit statement>.....	1261
17.8	<rollback statement>.....	1263
18	Connection management.....	1267
18.1	<connect statement>.....	1267
18.2	<set connection statement>.....	1270
18.3	<disconnect statement>.....	1272
19	Session management.....	1275
19.1	<set session characteristics statement>.....	1275
19.2	<set session user identifier statement>.....	1277
19.3	<set role statement>.....	1278