



Ingeniería en Sistemas
Computacionales



INSTITUTO TECNOLÓGICO SUPERIOR DE JEREZ
JEREZ DE GARCÍA SALINAS A 07 DE FEBRERO DEL 2020

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CARRERA:
INGENIERÍA EN SISTEMAS COMPUTACIONALES

NOMBRE DE LA MATERIA:
ADMINISTRACIÓN DE BASES DE DATOS

SEXTO SEMESTRE

TEMA 1 - PERSPECTIVA DE LA ADMINISTRACIÓN DE BASE DE
DATOS

“ACTIVIDAD 2 - CUADRO COMPARATIVO”

DOCENTE:
SALVADOR ACEVEDO SANDOVAL

	MySQL	Oracle	SQL Server	PostgreSQL	SQLite
SO en los que trabaja	Windows, macOS, Linux, B&D, Unix, AmigaOS, z/OS, Android, OpenVMS	Windows, macOS, Linux, Unix, z/OS, OpenVMS	Windows	Windows, macOS, Linux, B&D, Unix, AmigaOS, z/OS, Android	Windows, macOS, Linux, B&D, Unix, AmigaOS, z/OS, IOS, Android
ACID	Si	Si	Si	Si	Si
Permite integridad referencial	Si	Si	Si	Si	Si
Permite transacciones	Si, excepto para DDL	Si, excepto para DDL	Si	Si	Si
Max DB size	Ilimitada	2PB (with standard 8k block) 8PB (with max 32k block) 8EB (with max 32k block and BIGFILE option)	524,272 TB (32 767 files * 16 TB max file size) 16ZB por instancia	Ilimitada	128 TB (2 pages * 64 KB max page size)
Max table size	MyISAM storage limits: 256 TB; InnoDB storage limits: 64 TB	4 GB * block size (with BIGFILE tablespace)	524,272 TB	32 TB	Limitado por el tamaño del archivo
Max row size	64 KB	8 KB	8,060 bytes/2TB	1.6 TB	Limitado por el tamaño del archivo
Max columns por row	4,096	1,000	1,024/30,000	250–1600	32,767
Max CHAR size	64 KB (texto)	32,767 B	2 GB	1 GB	2 GB
Max NUMBER size	64 bits	126 bits	126 bits	Ilimitado	64 bits
Min DATE value and Max DATE value	1000 9999	–4712 9999	0001 9999	–4,713 5,874,897	No DATE type

Max column name size	64	128	128	63	Ilimitado
Tipos de particionamiento	Range, Hash, Composite, List	Range, Hash, Composite, List, Expression via Virtual Columns	Range, Hash via computed column, Compatibles (Range+Hash) via computed column, list, Expression via computed column	Range, Hash, Composite, List, Expression	-
Permite uso de triggers	Si	Si	Si	Si	Si
Permite uso de procedimientos almacenados	Si	Si	Si	Si	No
Tipos de datos ENTEROS	TINYINT (8-bit), SMALLINT (16-bit), MEDIUMINT (24-bit), INT (32-bit), BIGINT (64-bit)	NUMBER	TINYINT, SMALLINT, INT, BIGINT	SMALLINT (16-bit), INTEGER (32-bit), BIGINT (64-bit)	INTEGER (64-bit)
Tipos de Datos de Punto flotante	FLOAT (32-bit), DOUBLE (aka REAL) (64-bit)	BINARY_FLOAT, BINARY_DOUBLE	FLOAT, REAL	REAL (32-bit), DOUBLE PRECISION (64-bit)	REAL (aka FLOAT, DOUBLE) (64-bit)
Tipos de Datos Cadena	CHAR, BINARY, VARCHAR, VARBINARY, TEXT, TINYTEXT, MEDIUMTEXT, LONGTEXT	CHAR, VARCHAR2, CLOB, NCLOB, NVARCHAR2, NCHAR, LONG (deprecated)	CHAR, VARCHAR, TEXT, NCHAR, NVARCHAR, NTEXT	CHAR, VARCHAR, TEXT	TEXT (aka CHAR, CLOB)
Tipos de Datos Fecha y Hora	DATETIME, DATE, TIMESTAMP, YEAR	DATE, TIMESTAMP (with/without TIMEZONE), INTERVAL	DATE, DATETIMEOFFSET, DATETIME2, SMALLDATETIME, DATETIME, TIME	DATE, TIME (with/without TIMEZONE), TIMESTAMP (with/without TIMEZONE), INTERVAL	-

Tipos de Datos Booleanos	BIT(1), BOOLEAN (aka BOOL) = synonym for TINYINT	-	BIT	BOOLEAN	-
Otros tipos de Datos	ENUM, SET, GIS data types (Geometry, Point, Curve, LineString, Surface, Polygon, GeometryCollection, MultiPoint, MultiCurve, MultiLineString, MultiSurface, MultiPolygon)	SPATIAL, IMAGE, AUDIO, VIDEO, DICOM, XMLType	CURSOR, TIMESTAMP, HIERARCHYID, UNIQUEIDENTIFIER, SQL_VARIANT, XML, TABLE, Geometry, Geography, Custom .NET datatypes	ENUM, POINT, LINE, LSEG, BOX, PATH, POLYGON, CIRCLE, CIDR, INET, MACADDR, BIT, UUID, XML, JSON, JSONB, arrays, composites, ranges, custom	-
Tipos de ÍNDICES que maneja	R-/R+ tree (spatial indexes), hash (MEMORY, Cluster (NDB), InnoDB, tables only), full text (MyISAM tables and, since v5.6.4, InnoDB tables), spatial (MyISAM tables and, since v5.7.5, InnoDB tables)	R-/R+ tree, hash(cluster), expression, reverse, bitmap, full text, spatial, duplicate index prevention	R-/R+ tree, hash, expression, partial, reverse (on computed columns), bitmap (filter index for star Join Query), full text, spatial	R-/R+ tree, hash, expression, partial, reverse, bitmap, GIST, GIN, full text, spatial (PostGIS)	R-/R+ tree, expression, partial, full text, spatial (Spatialite)

Fuentes:

- Comparison of relational database management systems (s.f), recuperado de: https://en.wikipedia.org/wiki/Comparison_of_relational_database_management_systems
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