Cheatography

H2 DATABASE 1 - SQL Cheat Sheet
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Server Roles

sysadmin	Role members can perform all activities possible on the Database Engine instance. You specify initial membership of this role when performing installation of the Database Engine feature
server-admin	Role members can perform instance-wide config-uration tasks. Members of this role can shut down the instance
securi-tyadmin	Assign this role to logins that must be able to manage instance-level permissions
proces-sadmin	Role members can terminate processes running on a Database Engine instance.
setupadmin	Role members can add linked servers to and remove linked servers from the Database Engine instance.
bulkadmin	Assign this role to logins that you want to allow to use the BULK INSERT statement on databases hosted on an instance.
diskadmin	Role members can manage instance-related files
dbcreator	Role members are able to create, alter, drop, and restore databases hosted on the Database Engine instance
public	All SQL Server logins are members of this role.

Installation of SQL Server

Feature Selection	Database Engine Services	Includes the Database Engine, the core service for storing.
Installation	New SQL Server stand--alone	Installing the final SQL Server in a non-clustered enviroment
Setup Support Rukes	Status of rules	should pass all the rules
Instance Config-uration	Default Instance	Choose the default instance configuration
Engine Config-uration	Specify Server Admins	add a new or current user

Installation of SQL Server (cont)

Engine Configuration	Authentic-ation Mode	Choosing Mixed Mode - and setting up password

Monitoring Tools

SQL Server Profiler	tracks engine process events, such as the start of a batch or a transaction
Distri-buted Replay	use multiple computers to replay trace data, simulating a mission-critical workload.
System Monitor	primarily tracks resource usage
Activity Monitor	displays information about: Processes running, Blocked processes, Locks, User activity.
Transa-ct-SQL	Transact-SQL stored procedures that create, filter, and define tracing:
Error logs	The Windows application event log provides an overall picture of events occurring on the Windows Server

Date data types

datetime	From January 1, 1753 to December 31, 9999
smalld-atetime	From January 1, 1900 to June 6, 2079
date	Store a date only.
time	Store a time only to an accuracy of 100 nanose-conds

Setup of AD Sever

ADDS
DHCP
DNS

System Databases

Master	Records all the system-level information for an instance of SQL Server.
Model	Is used as the template for all databases
MSDB	Is used by SQL Server Agent for scheduling alerts and jobs.
TEMPDB	Is a workspace for holding temporary objects or interm-ediate result sets.

String data types

char(n)	Fixed width character string	8,000 characters
varchar(n)	Variable width character string	8,000 characters
varchar(max)	Variable width character string	1,073,741,824 characters
text	Variable width character string	2GB of text data
nchar	Fixed width Unicode string	4,000 characters
nvarchar	Variable width Unicode string	4,000 characters
nvarchar(max)	Variable width Unicode string	536,870,912 characters
ntext	Variable width Unicode string	2GB of text data
binary(n)	Fixed width binary string	8,000 bytes
varbinary	Variable width binary string	8,000 bytes
varbinary(max)	Variable width binary string	2GB
image	Variable width binary string	2GB

List of relational databases

Oracle
MySQL
Microsoft SQL Server
PostgreSQL
IBM DB2

A relational database management system, is a database management system that is based on the relational model.

Relational databases have often replaced legacy hierarchical databases and network databases because they are easier to understand and use.

Designing the Installation

Database Engine Services	Provides the core service for storing, processing, and securing data
SQL Server Replication	Allows for copying and distributing data and database objects from one database to another
Full-Text and Semantic Extractions For Search	Supports Full-Text Extraction for fast text search
Data Quality Services	Facilitates both computer-assisted and interactive methods of managing data source quality and integrity
Analysis Services	Supports online analytical processing (OLAP) and data mining
Reporting Services – Native	Facilitates the creation, management, and delivery of reports through email and interactive web-based formats
Reporting Services – SharePoint	Integrates report viewing and management through SharePoint.
Reporting Services Add-in	Provides management and user interfaces that allow integration between SharePoint and SQL Server Reporting Services (SSRS).
Data Quality Client	Interacts with data source quality and integrity services