LAPORAN PRAKTIKUM

JOBSHEET 12 : METADATA

Disusun untuk memenuhi nilai tugas

Mata Kuliah : Praktikum Basis Data Lanjut

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SIB 2B

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PROGRAM STUDI D-IV SISTEM INFORMASI BISNIS

POLITEKNIK NEGERI MALANG

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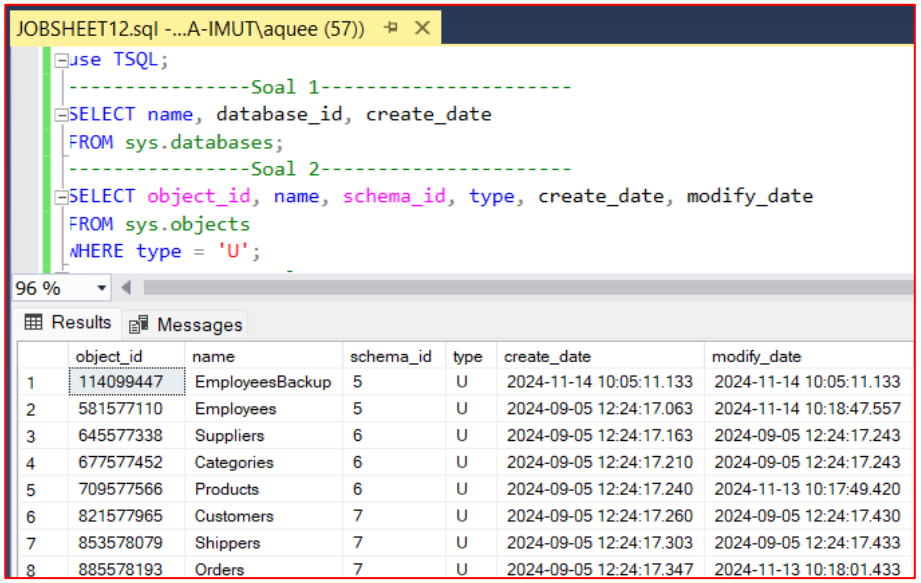
Praktikum – Bagian 1: View-view yang Berkaitan dengan System Catalog

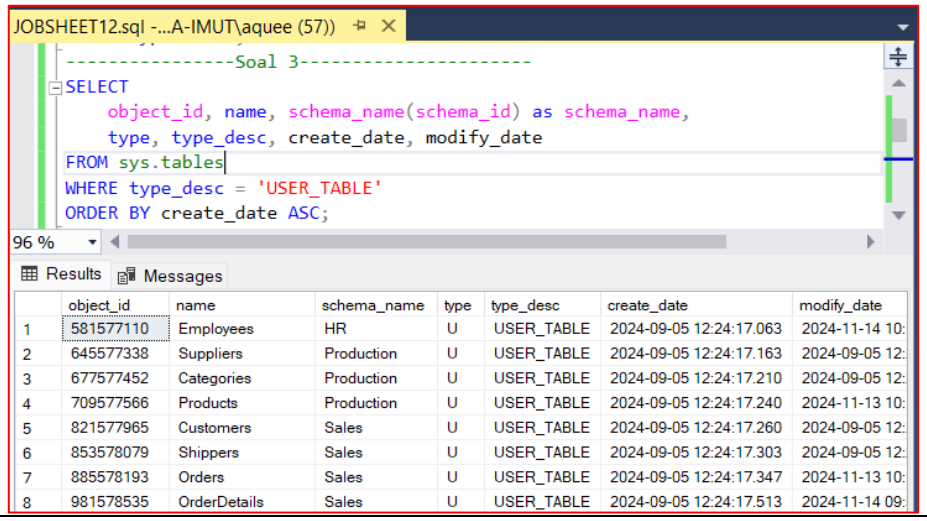
Langkah	Keterangan
1	[Soal-1] Buatlah SQL yang menampilkan nama, id, dan tanggal pembuatan semua database yang ada di server SQL Server

	Jawaban :
	`SELECT name, database_id, create_date`
	`FROM sys.databases;`
	96 %
	Results Messages
	name | database_id | create_date
	1 master 1 2003-04-08 09:13:36.390
	2 tempdb 2 2024-11-21 04:46:57.023
	3 model 3 2003-04-08 09:13:36.390
	4 msdb 4 2019-09-24 14:21:42.270
	5 percobaan 5 2024-08-29 14:11:15.113
	6 TSQL 6 2024-09-05 12:16:54.370
	7 tokosepeda 7 2024-09-27 00:09:46.250

2	[Soal-2] Buatlah SQL yang menampilkan data-data semua tabel yang dibuat oleh pengguna (users)! **Petunjuk:** Perhatikan tabel berikut untuk memfilter tabel yang sesuai! Results Messages type | type_desc 1 SQ SERVICE_QUEUE 2 U USER_TABLE 3 V VIEW 4 S SYSTEM_TABLE 5 IT INTERNAL_TABLE 6 P SQL_STORED_PROCEDURE Pastikan hasil akhirnya seperti berikut:

	Jawaban :  JOBSHEET12.sql -...A-IMUT\aquee (57)) use TSQL; ----------Soal 1---------- SELECT name, database_id, create_date FROM sys.databases; ----------Soal 2---------- SELECT object_id, name, schema_id, type, create_date, modify_date FROM sys.objects WHERE type = 'U'; 96 % Results Messages

	object_id	name	schema_id	type	create_date	modify_date
1	114099447	EmployeesBackup	5	U	2024-11-14 10:05:11.133	2024-11-14 10:05:11.133
2	581577110	Employees	5	U	2024-09-05 12:24:17.063	2024-11-14 10:18:47.557
3	645577338	Suppliers	6	U	2024-09-05 12:24:17.163	2024-09-05 12:24:17.243
4	677577452	Categories	6	U	2024-09-05 12:24:17.210	2024-09-05 12:24:17.243
5	709577566	Products	6	U	2024-09-05 12:24:17.240	2024-11-13 10:17:49.420
6	821577965	Customers	7	U	2024-09-05 12:24:17.260	2024-09-05 12:24:17.430
7	853578079	Shippers	7	U	2024-09-05 12:24:17.303	2024-09-05 12:24:17.433
8	885578193	Orders	7	U	2024-09-05 12:24:17.347	2024-11-13 10:18:01.433

3	[Soal-3] Dengan maksud dan tujuan yang sama seperti task sebelumnya, buatlah SQL dengan memanfaatkan tabel sys.tables!
	Jawaban :  JOBSHEET12.sql -...A-IMUT\aquee (57)) ----------Soal 3---------- SELECT object_id, name, schema_name(schema_id) as schema_name, type, type_desc, create_date, modify_date FROM sys.tables WHERE type_desc = 'USER_TABLE' ORDER BY create_date ASC; 96 % Results Messages

	object_id	name	schema_name	type	type_desc	create_date	modify_date
1	581577110	Employees	HR	U	USER_TABLE	2024-09-05 12:24:17.063	2024-11-14 10:
2	645577338	Suppliers	Production	U	USER_TABLE	2024-09-05 12:24:17.163	2024-09-05 12:
3	677577452	Categories	Production	U	USER_TABLE	2024-09-05 12:24:17.210	2024-09-05 12:
4	709577566	Products	Production	U	USER_TABLE	2024-09-05 12:24:17.240	2024-11-13 10:
5	821577965	Customers	Sales	U	USER_TABLE	2024-09-05 12:24:17.260	2024-09-05 12:
6	853578079	Shippers	Sales	U	USER_TABLE	2024-09-05 12:24:17.303	2024-09-05 12:
7	885578193	Orders	Sales	U	USER_TABLE	2024-09-05 12:24:17.347	2024-11-13 10:
8	981578535	OrderDetails	Sales	U	USER_TABLE	2024-09-05 12:24:17.513	2024-11-14 09:

4	[Soal-4] Tampilkan semua kolom yang dimiliki tabel Sales.Customers berikut tipe data yang digunakan pada masing-masing kolom. ***Jawaban :***

JOBSHEET12.sql -...A-IMUT\aquee (57))*

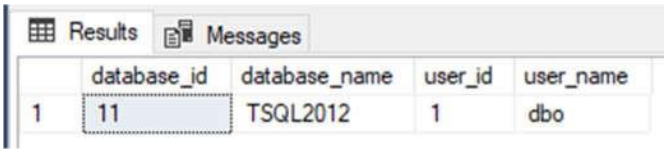
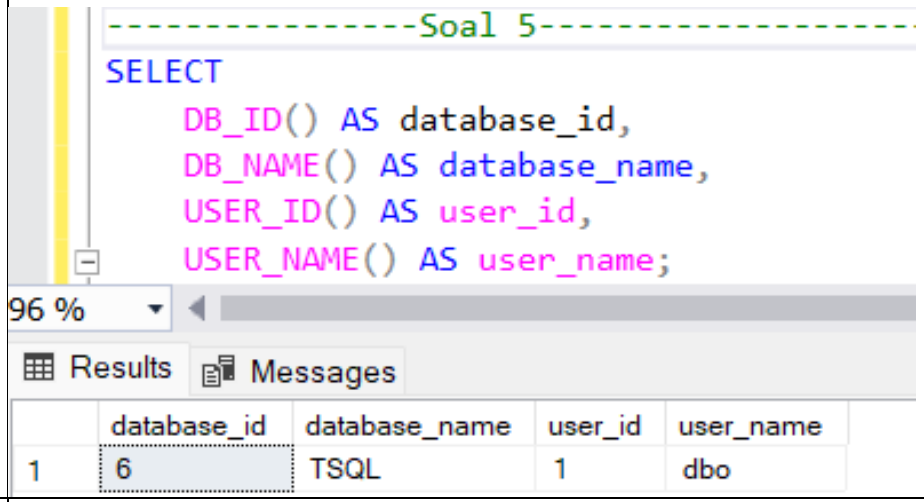
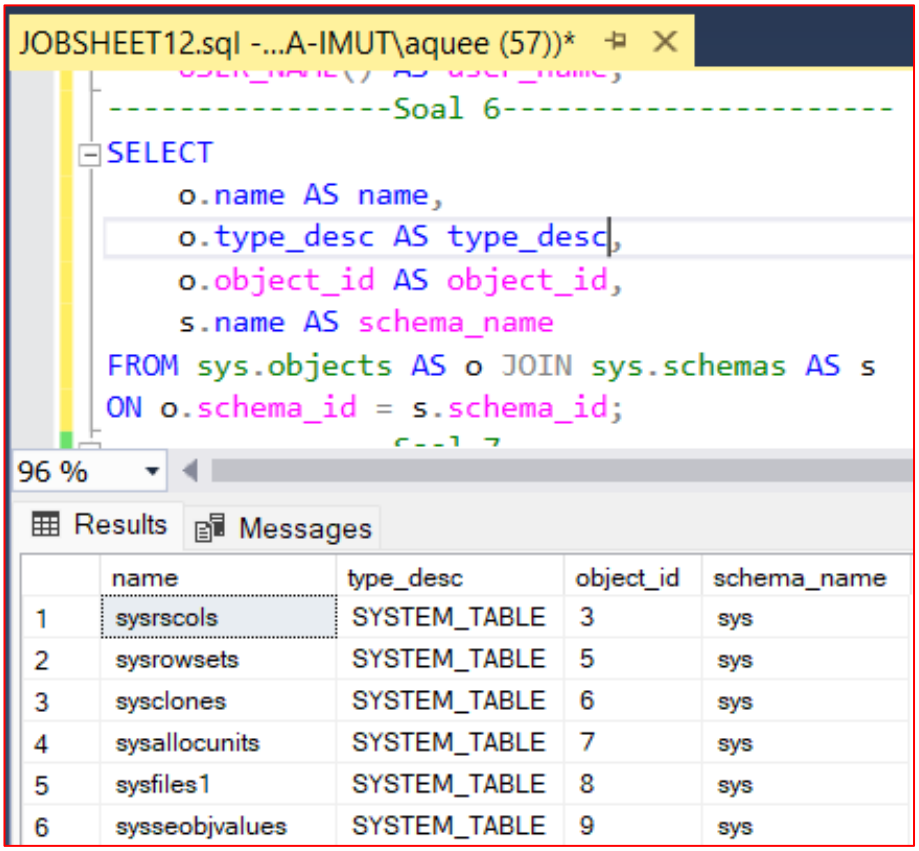
```
----------------Soal 4----------------------
SELECT
    COLUMN_NAME AS column_name,
    DATA_TYPE AS data_type,
    CHARACTER_MAXIMUM_LENGTH AS max_length,
    NUMERIC_PRECISION AS PRECISION,
    NUMERIC_SCALE AS scale,
    COLLATION_NAME AS collation_name
FROM INFORMATION_SCHEMA.COLUMNS
WHERE TABLE_NAME = 'Customers' AND TABLE_SCHEMA = 'Sales';
```

96 %

Results | Messages

	column_name	data_type	max_length	PRECISION	scale	collation_name
1	custid	int	NULL	10	0	NULL
2	companyname	nvarchar	40	NULL	NULL	SQL_Latin1_General_CP1_CI_AS
3	contactname	nvarchar	30	NULL	NULL	SQL_Latin1_General_CP1_CI_AS
4	contacttitle	nvarchar	30	NULL	NULL	SQL_Latin1_General_CP1_CI_AS
5	address	nvarchar	60	NULL	NULL	SQL_Latin1_General_CP1_CI_AS
6	city	nvarchar	15	NULL	NULL	SQL_Latin1_General_CP1_CI_AS
7	region	nvarchar	15	NULL	NULL	SQL_Latin1_General_CP1_CI_AS
8	postalcode	nvarchar	10	NULL	NULL	SQL_Latin1_General_CP1_CI_AS
9	country	nvarchar	15	NULL	NULL	SQL_Latin1_General_CP1_CI_AS
10	phone	nvarchar	24	NULL	NULL	SQL_Latin1_General_CP1_CI_AS
11	fax	nvarchar	24	NULL	NULL	SQL_Latin1_General_CP1_CI_AS

Praktikum – Bagian 2: Melakukan Kueri Terhadap System Functions

Langkah	Keterangan
1	[Soal-5] Buatlah SELECT query untuk menampilkan database yang dipakai, dan pengguna saat ini!  Results Messages database_id database_name user_id user_name 1 11 TSQL2012 1 dbo ***Jawaban :***  ----------Soal 5---------- SELECT DB_ID() AS database_id, DB_NAME() AS database_name, USER_ID() AS user_id, USER_NAME() AS user_name; 96 % Results Messages database_id database_name user_id user_name 1 6 TSQL 1 dbo
2	[Soal-6] Tulis SQL untuk menampilkan nama objek dan nama schema. ***Jawaban :***  JOBSHEET12.sql -...A-IMUT\aquee (57))* ----------Soal 6---------- SELECT o.name AS name, o.type_desc AS type_desc, o.object_id AS object_id, s.name AS schema_name FROM sys.objects AS o JOIN sys.schemas AS s ON o.schema_id = s.schema_id; 96 % Results Messages name type_desc object_id schema_name 1 sysrscols SYSTEM_TABLE 3 sys 2 sysrowsets SYSTEM_TABLE 5 sys 3 sysclones SYSTEM_TABLE 6 sys 4 sysallocunits SYSTEM_TABLE 7 sys 5 sysfiles1 SYSTEM_TABLE 8 sys 6 sysseobjvalues SYSTEM_TABLE 9 sys

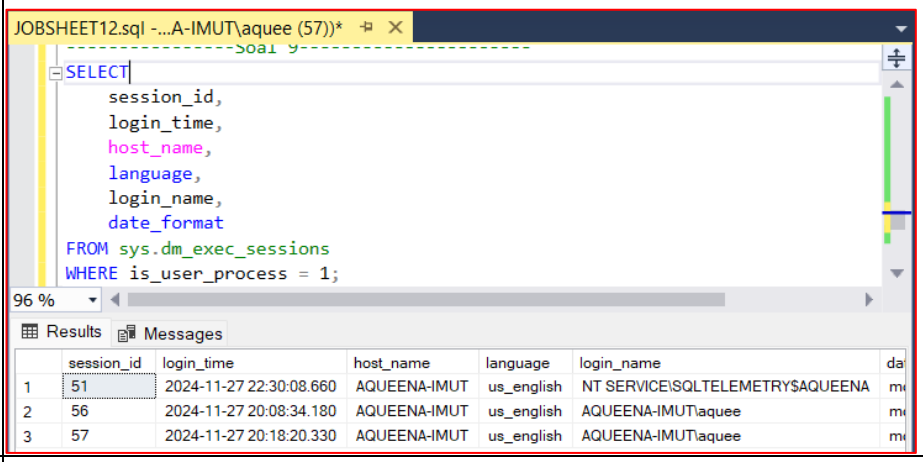
3	[Soal-7] Buatlah SQL untuk menampilkan data semua kolom dari tabel yang dibuat oleh user, yang di nama kolomnya ada kata "name" ***Jawaban :*** JOBSHEET12.sql -...A-IMUT\aquee (57)) ----------Soal 7---------- SELECT c.name AS column_name, t.name AS table_name, s.name AS schema_name FROM sys.columns AS c JOIN sys.tables AS t on c.object_id = t.object_id JOIN sys.schemas AS s ON t.schema_id = s.schema_id WHERE c.name LIKE '%name%'; 96 % Results Messages

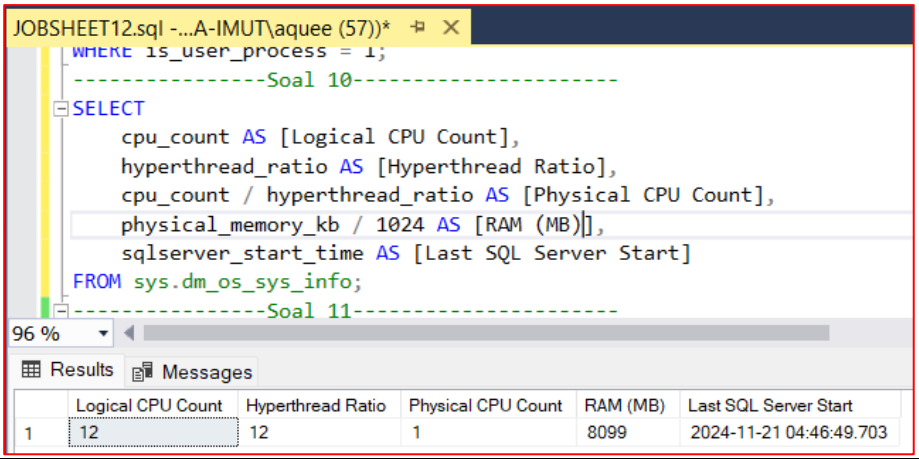
	column_name	table_name	schema_name
1	firstname	EmployeesBackup	HR
2	lastname	EmployeesBackup	HR
3	firstname	Employees	HR
4	lastname	Employees	HR
5	companyname	Suppliers	Production
6	contactname	Suppliers	Production
7	categoryname	Categories	Production
8	productname	Products	Production
9	companyname	Customers	Sales
10	contactname	Customers	Sales

4	[Soal-8] Tampilkan 'definisi' dari sebuah view yang bernama 'Sales.CustOrders'! ***Jawaban :*** ----------Soal 8---------- EXECUTE sys.sp_helptext 'Sales.CustOrders'; 96 % Results Messages

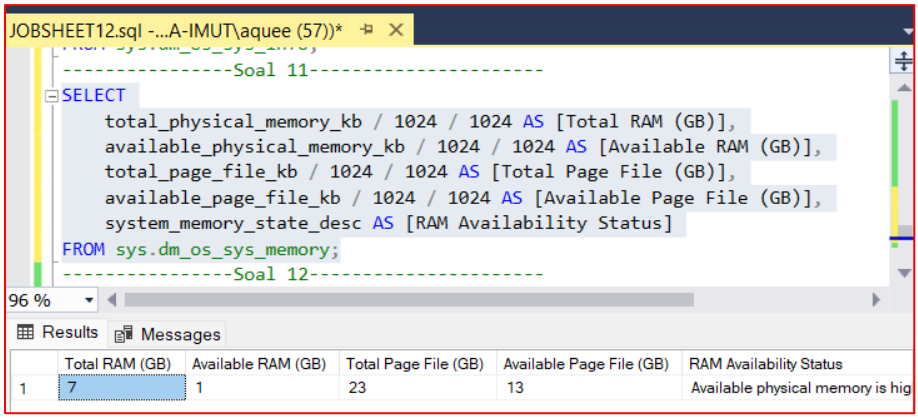
	Text
1	
2	CREATE VIEW Sales.CustOrders
3	WITH SCHEMABINDING
4	AS
5	
6	SELECT
7	O.custid,
8	DATEADD(month, DATEDIFF(month, 0, O.orderdate), 0)...
9	SUM(OD.qty) AS qty
10	FROM Sales.Orders AS O
11	JOIN Sales.OrderDetails AS OD
12	ON OD.orderid = O.orderid
13	GROUP BY custid, DATEADD(month, DATEDIFF(month, ...

Praktikum – Bagian 3: System Dynamic Management View

Langkah	Keterangan
1	[Soal-9] Tampilkan semua session yang sedang aktif saat ini! ***Jawaban :***  JOBSHEET12.sql -...A-IMUT\aquee (57))* ----------Soal 9---------- SELECT session_id, login_time, host_name, language, login_name, date_format FROM sys.dm_exec_sessions WHERE is_user_process = 1; 96 % Results Messages session_id login_time host_name language login_name da 1 51 2024-11-27 22:30:08.660 AQUEENA-IMUT us_english NT SERVICE\SQLTELEMETRY$AQUEENA m 2 56 2024-11-27 20:08:34.180 AQUEENA-IMUT us_english AQUEENA-IMUT\aquee m 3 57 2024-11-27 20:18:20.330 AQUEENA-IMUT us_english AQUEENA-IMUT\aquee m

2	[Soal-10] Eksekusilah SQL berikut dan screenshot-lah hasilnya!
	`SELECT`
	`cpu_count AS [Logical CPU Count],`
	`hyperthread_ratio AS [Hyperthread Ratio],`
	`cpu_count / hyperthread_ratio AS [Physical CPU Count],`
	`physical_memory_kb / 1024 AS [RAM (MB)],`
	`sqlserver_start_time AS [Last SQL Server Start]`
	`FROM`
	`sys.dm_os_sys_info;`
	Jawaban :
	 
	JOBSHEET12.sql -...A-IMUT\aquee (57))*
	WHERE is_user_process = 1;
	----------Soal 10----------
	SELECT
	cpu_count AS [Logical CPU Count],
	hyperthread_ratio AS [Hyperthread Ratio],
	cpu_count / hyperthread_ratio AS [Physical CPU Count],
	physical_memory_kb / 1024 AS [RAM (MB)],
	sqlserver_start_time AS [Last SQL Server Start]
	FROM sys.dm_os_sys_info;
	----------Soal 11----------
	96 %
	Results Messages
	Logical CPU Count Hyperthread Ratio Physical CPU Count RAM (MB) Last SQL Server Start
	1 12 12 1 8099 2024-11-21 04:46:49.703

3	[Soal-11] Tulislah SQL untuk menampilkan info memory (RAM) dari PC Anda! ***Jawaban :***


JOBSHEET12.sql -...A-IMUT\aquee (57))*
----------Soal 11----------
SELECT
total_physical_memory_kb / 1024 / 1024 AS [Total RAM (GB)],
available_physical_memory_kb / 1024 / 1024 AS [Available RAM (GB)],
total_page_file_kb / 1024 / 1024 AS [Total Page File (GB)],
available_page_file_kb / 1024 / 1024 AS [Available Page File (GB)],
system_memory_state_desc AS [RAM Availability Status]
FROM sys.dm_os_sys_memory;
----------Soal 12----------
96 %
Results
Messages
Total RAM (GB)
Available RAM (GB)
Total Page File (GB)
Available Page File (GB)
RAM Availability Status
1
7
1
23
13
Available physical memory is hig