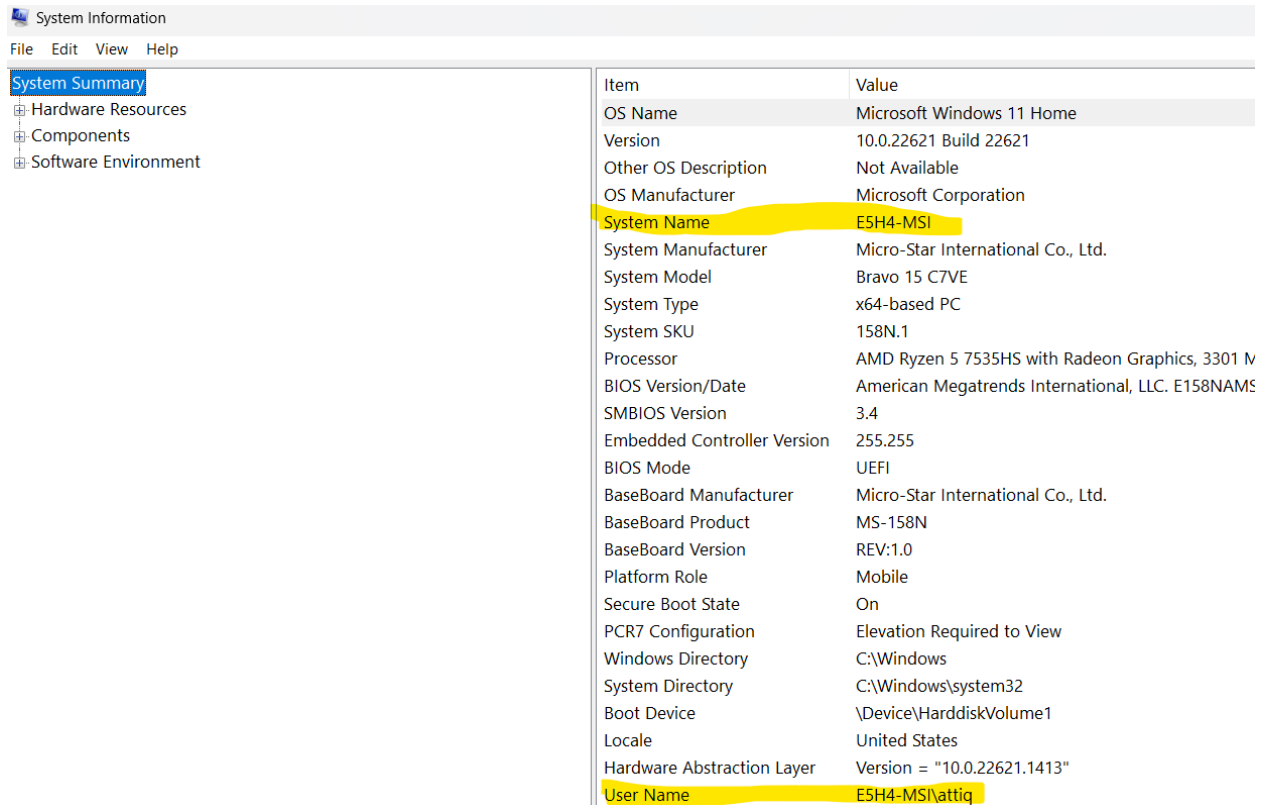


-- CIS430: Lab Assignment 1

-- Name: Esha Attiq

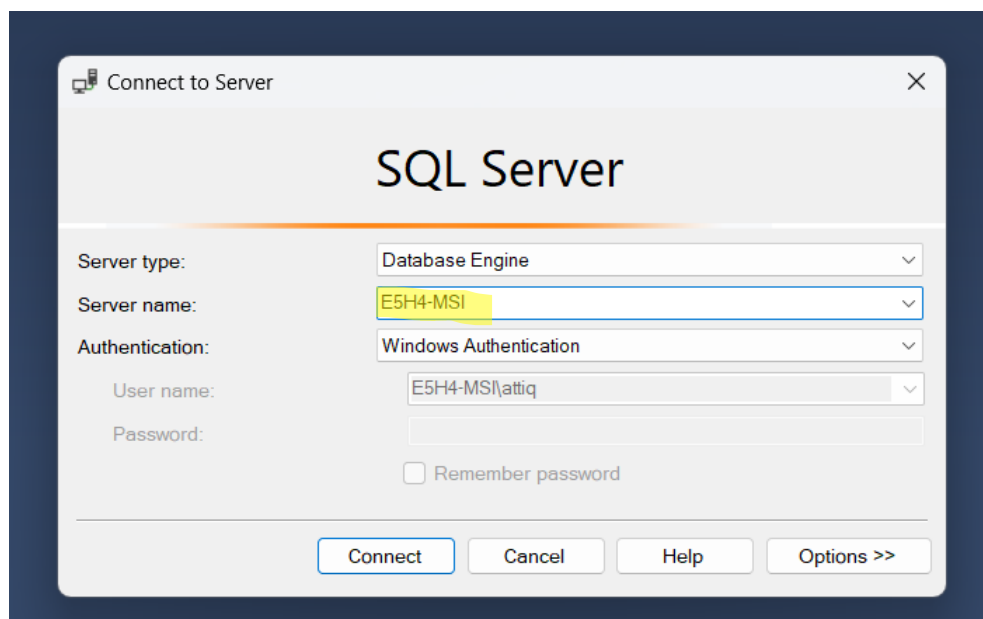
--ID: 2774494

-- Object: Creating a Relational Database Schema Using SQL and SQL Server



The screenshot shows the Windows System Information window. The left sidebar has 'System Summary' selected. The main area displays a table of system information. The 'System Name' and 'User Name' fields are highlighted in yellow.

Item	Value
OS Name	Microsoft Windows 11 Home
Version	10.0.22621 Build 22621
Other OS Description	Not Available
OS Manufacturer	Microsoft Corporation
System Name	ESH4-MSI
System Manufacturer	Micro-Star International Co., Ltd.
System Model	Bravo 15 C7VE
System Type	x64-based PC
System SKU	158N.1
Processor	AMD Ryzen 5 7535HS with Radeon Graphics, 3301 M
BIOS Version/Date	American Megatrends International, LLC. E158NAMS
SMBIOS Version	3.4
Embedded Controller Version	255.255
BIOS Mode	UEFI
BaseBoard Manufacturer	Micro-Star International Co., Ltd.
BaseBoard Product	MS-158N
BaseBoard Version	REV:1.0
Platform Role	Mobile
Secure Boot State	On
PCR7 Configuration	Elevation Required to View
Windows Directory	C:\Windows
System Directory	C:\Windows\system32
Boot Device	\Device\HarddiskVolume1
Locale	United States
Hardware Abstraction Layer	Version = "10.0.22621.1413"
User Name	ESH4-MSI\attiq



The screenshot shows the 'Connect to Server' dialog box for SQL Server. The 'Server type' is set to 'Database Engine'. The 'Server name' is 'ESH4-MSI'. The 'Authentication' is 'Windows Authentication'. The 'User name' is 'ESH4-MSI\attiq'. The 'Password' field is empty. The 'Remember password' checkbox is unchecked. The 'Connect' button is highlighted.

Connect to Server

SQL Server

Server type: Database Engine

Server name: ESH4-MSI

Authentication: Windows Authentication

User name: ESH4-MSI\attiq

Password:

☐ Remember password

Connect Cancel Help Options >>

- Created a database

```
USE master;
-- create a db named COMPANY_Esha. do NOT use master db.
IF DB_ID('COMPANY_EshaAtt') IS NULL
    CREATE DATABASE COMPANY_EshAtt;
```

GO

```
--use created db
USE COMPANY_EshAtt;
GO
```

[Will get error if already created. Since I executed the program, there's an error because I already CREATED it. Look at the Object Explorer as it shows.]

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the server 'E5H4-MSI (SQL Server 15.0.210)' with a tree view including Databases, System Databases, Database Snapshots, and the newly created 'COMPANY_EshAtt' database. The 'COMPANY_EshAtt' database is expanded, showing its internal structure like Tables, Views, and Security. On the right, a query window titled 'EshaAttq_Lab1_Cre...H4-MSI\attiq (55)*' contains the following SQL script:

```
-- CIS430- Lab Assignment 1
-- Name: Esha Attiq
-- ID: 2774494
-- Object: Creating a Relational Database Schema Using SQL and SQL Server

USE master;
-- create a db named COMPANY_EshAtt. do NOT use master db.
IF DB_ID('COMPANY_EshaAtt') IS NULL
    CREATE DATABASE COMPANY_EshAtt;
GO

--use created db
USE COMPANY_EshAtt;
GO

-- drop table, removes EMPLOYEE table & data
IF OBJECT_ID('dbo.EMPLOYEE') IS NOT NULL
    DROP TABLE dbo.EMPLOYEE

-- create table named EMPLOYEE with correct row names & sizes
CREATE TABLE EMPLOYEE(
    FNAME VARCHAR(25) NOT NULL
```

At the bottom, the Messages pane shows an error message: 'Msg 1801, Level 16, State 3, Line 10 Database 'COMPANY_EshAtt' already exists. Choose a different database name.' The completion time is noted as '2023-09-15T18:24:16.3681561-04:00'.

- Drop and Create EMPLOYEE and DEPARTMENT tables inside database that was created

```
--use created db
USE COMPANY_EshAtt;
GO

-- drop table, removes EMPLOYEE table & data
IF OBJECT_ID('dbo.EMPLOYEE') IS NOT NULL
    DROP TABLE dbo.EMPLOYEE

-- create table named EMPLOYEE with correct row names & sizes
CREATE TABLE EMPLOYEE(
    FNAME VARCHAR(25) NOT NULL,
    MINIT CHAR,
    LNAME VARCHAR(25) NOT NULL,
    SSN CHAR(9) NOT NULL,
    BDATE DATE,
    [ADDRESS] VARCHAR(50) NOT NULL,
    SEX CHAR NOT NULL,
    SALARY DECIMAL(18,2),
    SUPERSN CHAR(9),
    DNO INT NOT NULL
);
GO

USE COMPANY_EshAtt;
GO

-- drop table, removes DEPARTMENT table & data
IF OBJECT_ID('dbo.DEPARTMENT') IS NOT NULL
    DROP TABLE dbo.DEPARTMENT

-- create table named DEPARTMENT with correct row names & sizes
CREATE TABLE DEPARTMENT(
    DNAME VARCHAR(25) NOT NULL,
    DNUMBER CHAR,
    MGRSSN CHAR(9) NOT NULL,
    MGRSTARTDATE DATE,
);
GO
```

EshaAttq_Lab1_CreateTable.sql - ESH4-MSI.COMPANY_EshAtt (ESH4-MSI\attiq (55))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

COMPANY_EshAtt Execute

Object Explorer

- Connect
- ESH4-MSI (SQL Server 15.0.210)

 - Databases
 - System Databases
 - Database Snapshots
 - COMPANY_EshAtt
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - Graph Tables
 - dbo.DEPARTMENT
 - dbo.EMPLOYEE
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
 - DWConfiguration
 - DWDiagnostics
 - DWQueue
 - Security
 - Server Objects
 - Replication
 - PolyBase
 - Always On High Availability

EshaAttq_Lab1_Cre...H4-MSI\attiq (55))*

```
--use created db
USE COMPANY_EshAtt;
GO

-- drop table, removes EMPLOYEE table & data
IF OBJECT_ID('dbo.EMPLOYEE') IS NOT NULL
    DROP TABLE dbo.EMPLOYEE

-- create table named EMPLOYEE with correct row names & sizes
CREATE TABLE EMPLOYEE(
    FNAME VARCHAR(25) NOT NULL,
    MINIT CHAR,
    LNAME VARCHAR(25) NOT NULL,
    SSN CHAR(9) NOT NULL,
    BDATE DATE,
    [ADDRESS] VARCHAR(50) NOT NULL,
    SEX CHAR NOT NULL,
    SALARY DECIMAL(18,2),
    SUPERSSN CHAR(9),
    DNO INT NOT NULL
);
GO
```

100 %

Messages

Commands completed successfully.

Completion time: 2023-09-15T18:21:31.8616747-04:00

Object Explorer

- Connect
- ESH4-MSI (SQL Server 15.0.210)

 - Databases
 - System Databases
 - Database Snapshots
 - COMPANY_EshAtt
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - Graph Tables
 - dbo.DEPARTMENT
 - dbo.EMPLOYEE
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
 - DWConfiguration
 - DWDiagnostics
 - DWQueue
 - Security
 - Server Objects
 - Replication
 - PolyBase
 - Always On High Availability
 - Management

EshaAttq_Lab1_Cre...H4-MSI\attiq (55))*

```
SALARY DECIMAL(18,2),
SUPERSSN CHAR(9),
DNO INT NOT NULL
);
GO

USE COMPANY_EshAtt;
GO

-- drop table, removes DEPARTMENT table & data
IF OBJECT_ID('dbo.DEPARTMENT') IS NOT NULL
    DROP TABLE dbo.DEPARTMENT

-- create table named DEPARTMENT with correct row names & sizes
CREATE TABLE DEPARTMENT(
    DNAME VARCHAR(25) NOT NULL,
    DNUMBER CHAR,
    MGRSSN CHAR(9) NOT NULL,
    MGRSTARTDATE DATE,
);
GO

-- insert values inside EMPLOYEE table
INSERT INTO EMPLOYEE VALUES('John' 'B' 'Smith' '123456789' '9
```

100 %

Messages

Commands completed successfully.

Completion time: 2023-09-15T18:30:51.0773510-04:00

- Insert values into EMPLOYEE and DEPARTMENT tables

```
-- insert values inside EMPLOYEE table
INSERT INTO EMPLOYEE VALUES('John', 'B', 'Smith', '123456789', '9-Jan-1955', '731
Fondren, Houston, TX', 'M', 30000, '987654321', 5);
INSERT INTO EMPLOYEE VALUES('Franklin', 'T', 'Wong', '333445555', '08-Dec-1945', '638
Voss, Houston, TX', 'M', 40000, '888665555', 5);
INSERT INTO EMPLOYEE VALUES('Joyce', 'A', 'English', '453453453', '21-Jul-1962', '5631
Rice, Houston, TX', 'M', 30000, '333445555', 5);
INSERT INTO EMPLOYEE VALUES('Ramash', 'K', 'Narayan', '666884444', '15-Sep-1952', '975
Fire Oak, Humble, TX', 'M', 38000, '333445555', 5);
INSERT INTO EMPLOYEE VALUES('James', 'E', 'Borg', '888665555', '10-Nov-1927', '975 Fire
Oak, Humble, TX', 'M', 55000, NULL, 1);
INSERT INTO EMPLOYEE VALUES('Jennifer', 'S', 'Wallace', '987654321', '20-Jun-1931', '291
Berry, Bellaire, TX', 'F', 43000, '888665555', 4);
INSERT INTO EMPLOYEE VALUES('Ahmad', 'V', 'Jabbar', '987987987', '29-Mar-1959', '980
Dallas, Houston, TX', 'M', 25000, '987654321', 4);
INSERT INTO EMPLOYEE VALUES('Alicia', 'J', 'Zelaya', '999887777', '19-Jul-1958', '3321
Castle, SPring, TX', 'F', 25000, '987654321', 4);
GO

-- insert values inside DEPARTMENT table
INSERT INTO DEPARTMENT VALUES ('Headquarters', '1', '888665555', '19-Jun-71');
INSERT INTO DEPARTMENT VALUES ('Administration', '4', '987654321', '01-Jan-85');
INSERT INTO DEPARTMENT VALUES ('Research', '5', '333445555', '22-May-78');
INSERT INTO DEPARTMENT VALUES ('Automation', '7', '123456789', '06-Oct-05');
```

The screenshot shows a SQL Developer window titled 'EshaAttig_Lab1_Cre...H4-MSI\attiq (55)'. The SQL Editor contains the same script as above. The Messages pane at the bottom displays the following output:

```
(1 row affected)
(1 row affected)
(1 row affected)
(1 row affected)
(1 row affected)
(1 row affected)
(1 row affected)
(1 row affected)
(1 row affected)
(1 row affected)
```

Completion time: 2023-09-15T18:36:34.2710842-04:00

```

EshaAttig_Lab1_Cre...H4-MSI\attiq (55)
INSERT INTO EMPLOYEE VALUES('Joyce', 'A', 'English', '453453453', '21-Jul-1962',
INSERT INTO EMPLOYEE VALUES('Ramash', 'K', 'Narayan', '666884444', '15-Sep-1952'
INSERT INTO EMPLOYEE VALUES('James', 'E', 'Borg', '888665555', '10-Nov-1927', '9
INSERT INTO EMPLOYEE VALUES('Jennifer', 'S', 'Wallace', '987654321', '20-Jun-193
INSERT INTO EMPLOYEE VALUES('Ahmad', 'V', 'Jabbar', '987987987', '29-Mar-1959',
INSERT INTO EMPLOYEE VALUES('Alicia', 'J', 'Zelaya', '999887777', '19-Jul-1958',
GO
-- insert values inside DEPARTMENT table
INSERT INTO DEPARTMENT VALUES ('Headquarters', '1', '888665555', '19-Jun-71');
INSERT INTO DEPARTMENT VALUES ('Administration', '4', '987654321', '01-Jan-85');
INSERT INTO DEPARTMENT VALUES ('Research', '5', '333445555', '22-May-78');
INSERT INTO DEPARTMENT VALUES ('Automation', '7', '123456789', '06-Oct-05');

-- to see all EMPLOYEE records inserted
SELECT * FROM EMPLOYEE
-- to see all DEPARTMENT records inserted
SELECT * FROM DEPARTMENT

```

100 %

Messages

(1 row affected)

(1 row affected)

(1 row affected)

(1 row affected)

Completion time: 2023-09-15T18:44:44.8758249-04:00

- Lastly, use SELECT to see all EMPLOYEE and DEPARTMENT records that are inserted

```

-- to see all EMPLOYEE records inserted
SELECT * from EMPLOYEE
-- to see all DEPARTMENT
records inserted
SELECT * from DEPARTMENT

```

[last screenshot on the final page is also proof of path and filename]

```

EshaAttig_Lab1_Cre...H4-MSI\attiq (55)
INSERT INTO EMPLOYEE VALUES('Ramash', 'K', 'Narayan', '666884444', '15-Sep-1952', '975
INSERT INTO EMPLOYEE VALUES('James', 'E', 'Borg', '888665555', '10-Nov-1927', '975 Fir
INSERT INTO EMPLOYEE VALUES('Jennifer', 'S', 'Wallace', '987654321', '20-Jun-1931', '2
INSERT INTO EMPLOYEE VALUES('Ahmad', 'V', 'Jabbar', '987987987', '29-Mar-1959', '980
INSERT INTO EMPLOYEE VALUES('Alicia', 'J', 'Zelaya', '999887777', '19-Jul-1958', '3321
GO
-- insert values inside DEPARTMENT table
INSERT INTO DEPARTMENT VALUES ('Headquarters', '1', '888665555', '19-Jun-71');
INSERT INTO DEPARTMENT VALUES ('Administration', '4', '987654321', '01-Jan-85');
INSERT INTO DEPARTMENT VALUES ('Research', '5', '333445555', '22-May-78');
INSERT INTO DEPARTMENT VALUES ('Automation', '7', '123456789', '06-Oct-05');

-- to see all EMPLOYEE records inserted
SELECT * FROM EMPLOYEE
-- to see all DEPARTMENT records inserted
SELECT * FROM DEPARTMENT

```

100 %

Results Messages

	FNAME	MINIT	LNAME	SSN	BDATE	ADDRESS	SEX	SALARY	SUPERSSN	DNO
1	John	B	Smith	123456789	1955-01-09	731 Fondren, Houston, TX	M	30000.00	987654321	5
2	Franklin	T	Wong	333445555	1945-12-08	638 Voss, Houston, TX	M	40000.00	888665555	5
3	Joyce	A	English	453453453	1962-07-21	5631 Rice, Houston, TX	M	30000.00	333445555	5
4	Ramash	K	Narayan	666884444	1952-09-15	975 Fire Oak, Humble, TX	M	38000.00	333445555	5
5	James	E	Borg	888665555	1927-11-10	975 Fire Oak, Humble, TX	M	55000.00	NULL	1
6	Jennifer	S	Wallace	987654321	1931-06-20	291 Berry, Bellaire, TX	F	43000.00	888665555	4
7	Ahmad	V	Jabbar	987987987	1959-03-29	980 Dallas, Houston, TX	M	25000.00	987654321	4
8	Alicia	J	Zelaya	999887777	1958-07-19	3321 Castle, Spring, TX	F	25000.00	987654321	4

EshaAttig_Lab1_CreateTable.sql - ESH4-MSI.COMPANY_EshAtt (ESH4-MSI\attiq (55)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

COMPANY_EshAtt

Execute

Object Explorer

Connect

ESH4-MSI (SQL Server 15.0.210)

Databases

System Databases

Database Snapshots

COMPANY_EshAtt

Database Diagrams

Tables

System Tables

FileTables

External Tables

Graph Tables

dbo.DEPARTMENT

dbo.EMPLOYEE

Views

External Resources

Synonyms

Programmability

Service Broker

Storage

Security

DWConfiguration

DWDiagnostics

DWQueue

Security

Server Objects

Replication

EshaAttig_Lab1_Cre...H4-MSI\attiq (55))

```
INSERT INTO EMPLOYEE VALUES('Jennifer', 'S', 'Wallace', '987654321', '20-Jun-1931', '291 Berry, Bellaire, TX', 'F', 43000, '888665555', 4);
INSERT INTO EMPLOYEE VALUES('Jennifer', 'S', 'Wallace', '987654321', '20-Jun-1931', '291 Berry, Bellaire, TX', 'F', 43000, '888665555', 4);
INSERT INTO EMPLOYEE VALUES('Jennifer', 'S', 'Wallace', '987654321', '20-Jun-1931', '291 Berry, Bellaire, TX', 'F', 43000, '888665555', 4);
GO
-- insert values inside DEPARTMENT table
INSERT INTO DEPARTMENT VALUES ('Headquarters', '1', '888665555', '19-Jun-71');
INSERT INTO DEPARTMENT VALUES ('Administration', '4', '987654321', '01-Jan-85');
INSERT INTO DEPARTMENT VALUES ('Research', '5', '333445555', '22-May-78');
INSERT INTO DEPARTMENT VALUES ('Automation', '7', '123456789', '06-Oct-05');

-- to see all EMPLOYEE records inserted
SELECT * FROM EMPLOYEE
-- to see all DEPARTMENT records inserted
SELECT * FROM DEPARTMENT
```

100 %

Results Messages

	DNAME	DNUMBER	MGRSSN	MGRSTARTDATE
1	Headquarters	1	888665555	1971-06-19
2	Administration	4	987654321	1985-01-01
3	Research	5	333445555	1978-05-22
4	Automation	7	123456789	2005-10-06