

# 知库\_OWLS

## BLOOD CONNECT APP

*Blood Donation & Donor  
Management*

5.3.2025

**Prepared by**

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*Hashem Emad*



Team name: 知库\_owls

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3-Abdelrhaman Wael	692400172	A5
4-Mohamed Essam	692300163	A5
5-Hashem Emad	692300230	A5



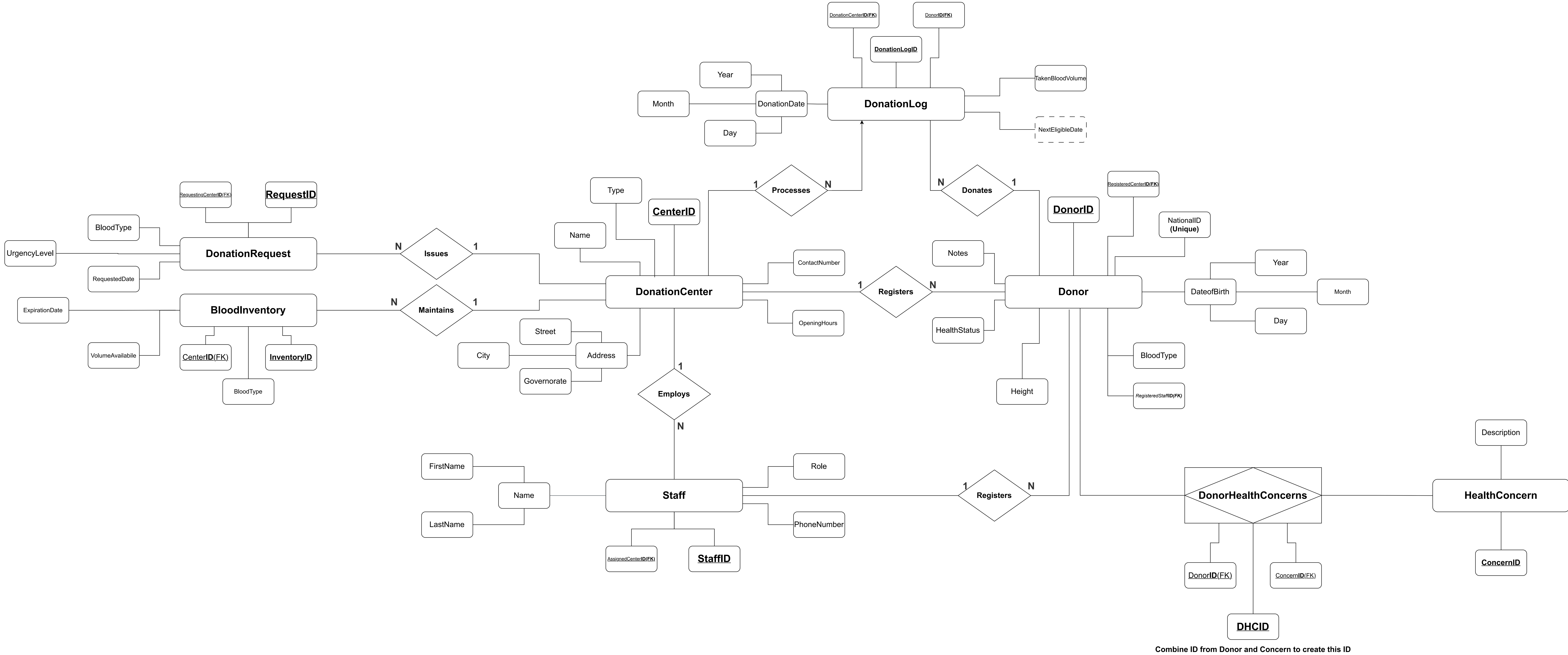
## Grades Section

Name	ID	Grade
Mohamed Abdullah	622400029	
Mohannad Ezzeldin	692300185	
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# AGENDA

- ERD DIAGRAM
- ALL SQL SCRIPTS
- SCREENSHOTS OF RESULTS
- ANSWERS TO THE SQL QUESTIONS



# ALL SQL SCRIPTS

SQLQuery9.sql - A...VILION\mohan (57))\*

SQLQuery8.sql - A...VILION\mohan (73))\*

SQLQuery3.sql - A...VILION\mohan (72))\*

```
use BloodDonationSystem;
-- table DonationCenter
create table DonationCenter(
centerID int primary key identity(1,1),
Name varchar(50) not null,
type varchar(50) not null,
contactnumber int not null,
openingHours varchar(50)not null,
address varchar(50) not null,
);
--table donationRequest
create table DonationRequest(
RequestingCenterID int primary key identity(1,1),
bloodtybe varchar(50) not null,
urgencylevel varchar(50) not null,
Requested date not null,
centerID int not null,
foreign key (centerID)references DonationCenter(centerID),
);
--table bloodinventory
create table Bloodventory(
inventoryID int primary key identity(1,1),
Expiration varchar(50) not null,
bloodtype varchar(50) not null,
volumeAvailabile varchar (50) not null,
centerID int not null,
foreign key (centerID)references DonationCenter(centerID),
);
--table staff
create table staff(
staffID int primary key identity(1,1),
Name varchar(50) not null,
role varchar (50) not null,
phoneNumber int not null,
centerID int not null,
foreign key (centerID)references DonationCenter(centerID),
);
```



# ALL SQL SCRIPTS

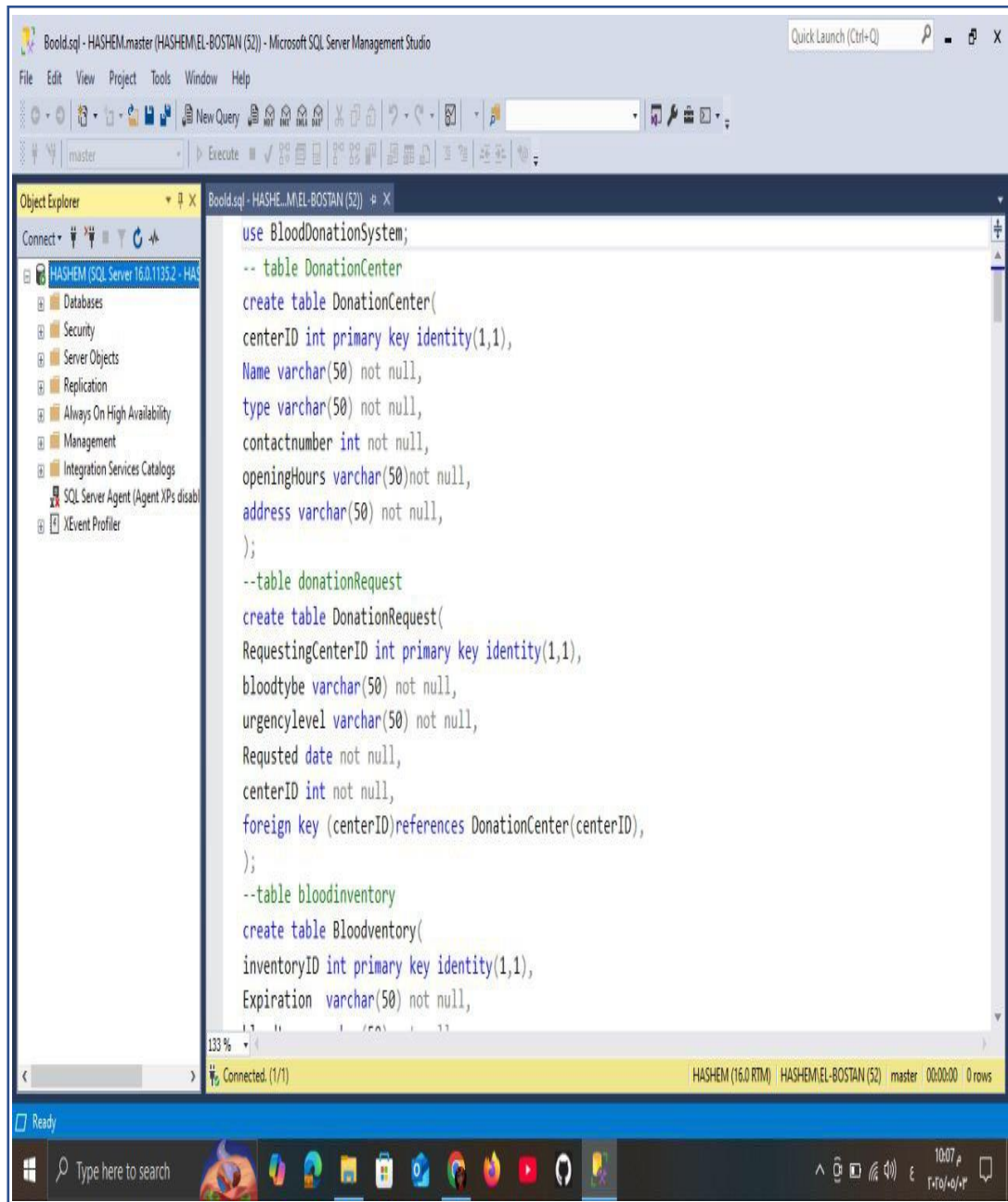
SQLQuery9.sql - A...VILION\mohan (57))\*

SQLQuery8.sql - A...VILION\mohan (73))\*

SQLQuery3.sql - A...VILION\mohan (72))\*

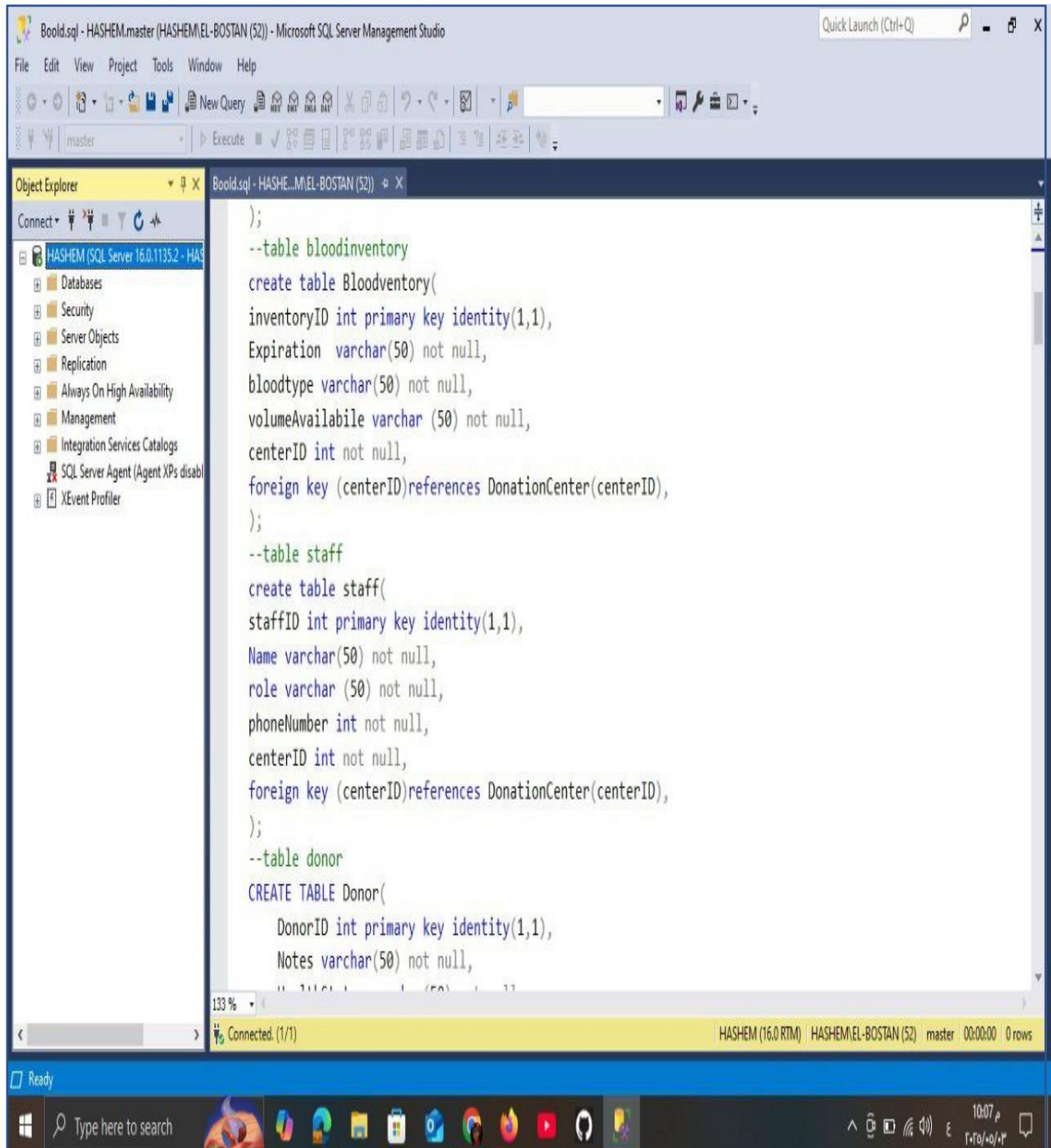
```
);
--table donor
CREATE TABLE Donor(
    DonorID int primary key identity(1,1),
    Notes varchar(50) not null,
    HealthStatus varchar(50) not null,
    Height int not null,
    NationalID int unique not null, --National
    DateOfBirth date,
    BloodType varchar(50) not null,
    centerID int not null,
    staffID int not null,
    foreign key (centerID) references DonationCenter(centerID),
    foreign key (staffID) references staff(staffID)
);
--table Donationlog
create table Donationlog(
    DonationlogID int primary key identity(1,1),
    Donation date not null,
    TakenBloodVolume varchar(50) not null,
    NextEligible date not null,
    centerID int not null,
    DonorID int not null,
    foreign key (centerID) references DonationCenter(centerID),
    foreign key (DonorID) references Donor(DonorID),
);
-- DonorHealthConcerns
create table DonorHealthConcerns(
    DHCID varchar (50) primary key not null,
    centerID int not null,
    DonorID int not null,
    foreign key (centerID) references DonationCenter(centerID),
    foreign key (DonorID) references Donor(DonorID),
);
--HealthConcern
create table HealthConcern(
    centerID int not null,
    Description varchar(50) not null,
    foreign key (centerID) references DonationCenter(centerID),
);
--add new column
ALTER TABLE staff
ADD email VARCHAR(100) not null;
```

# ALL SQL SCRIPTS

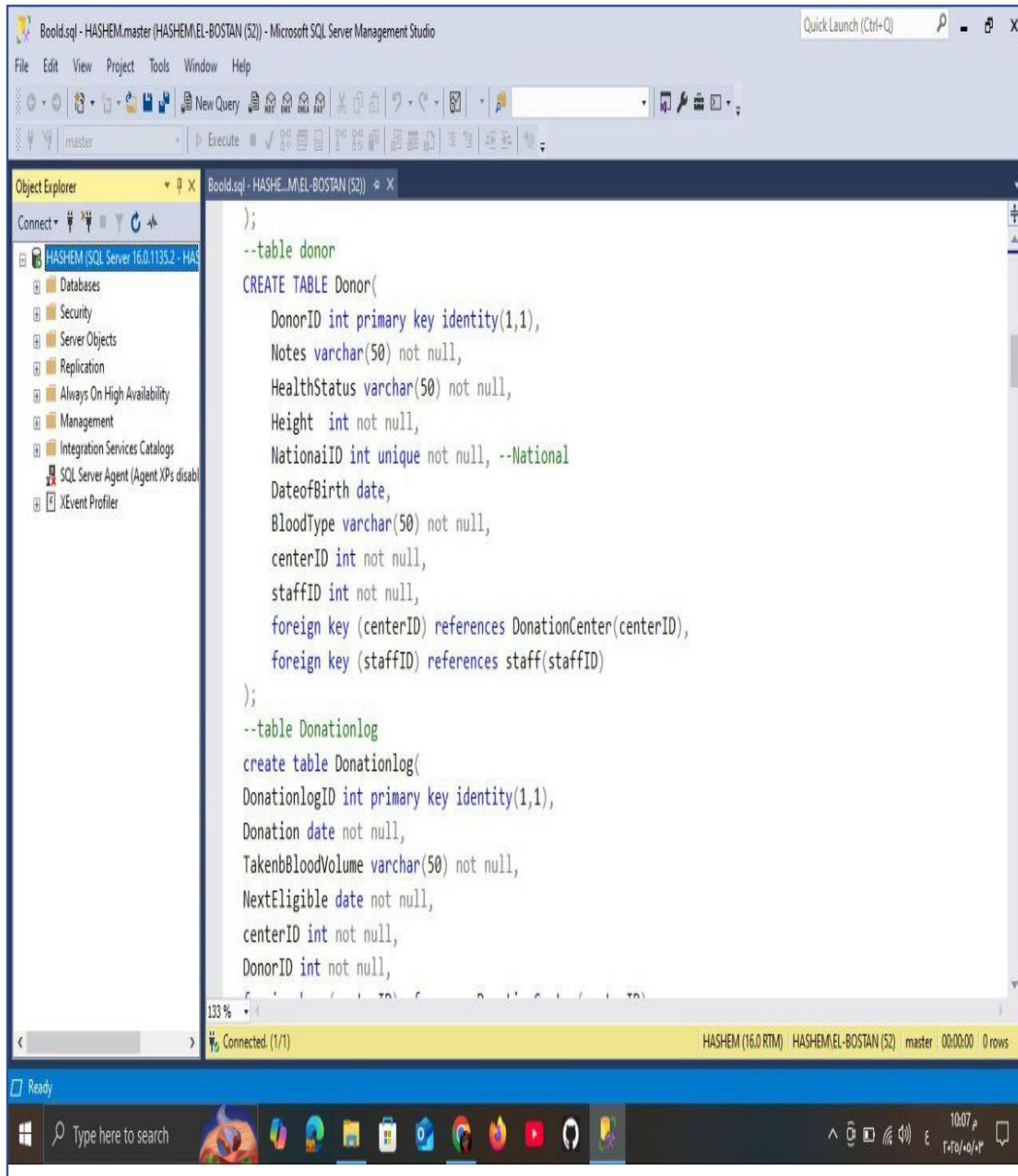




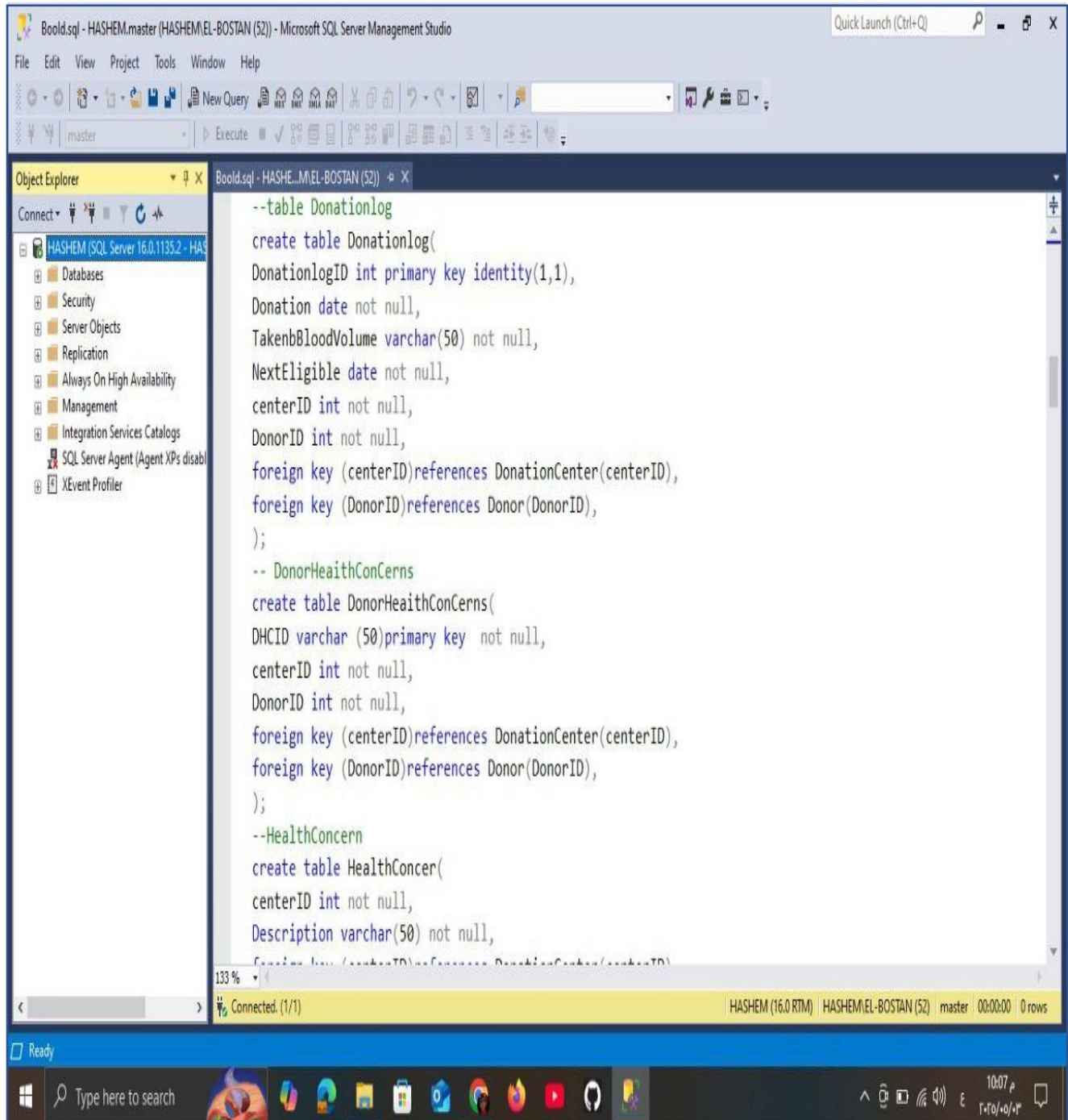
# ALL SQL SCRIPTS



# ALL SQL SCRIPTS

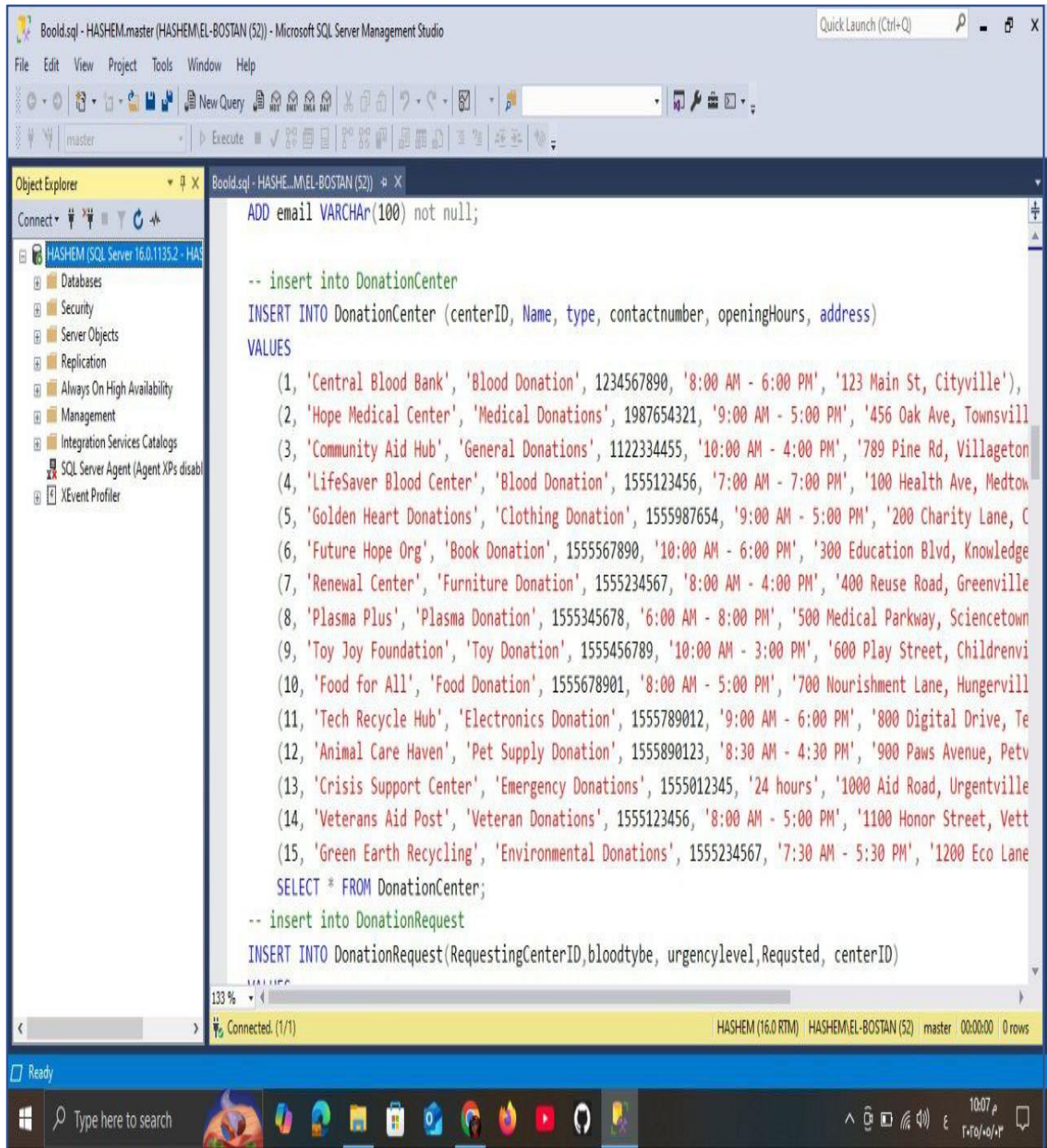


# ALL SQL SCRIPTS

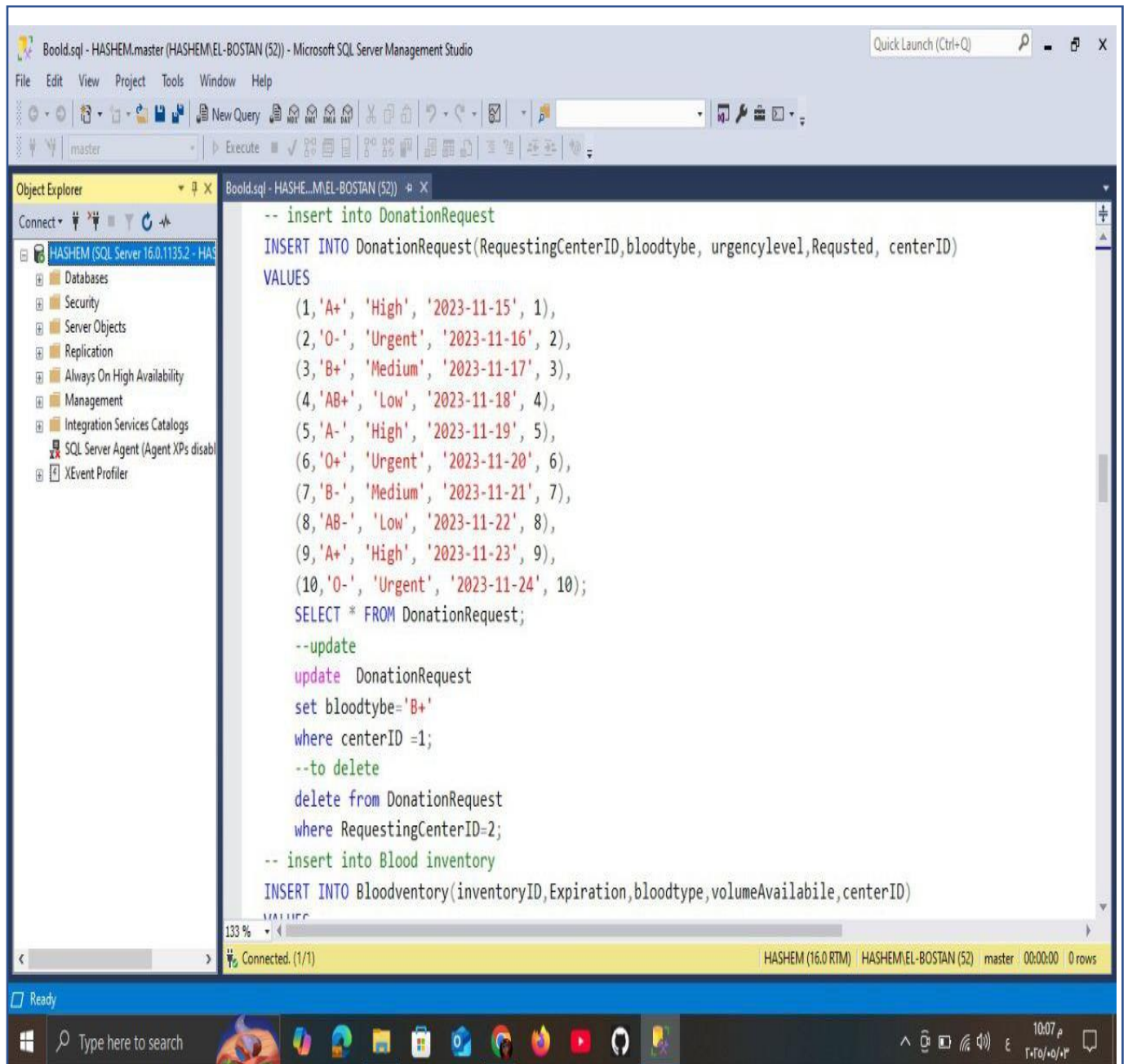




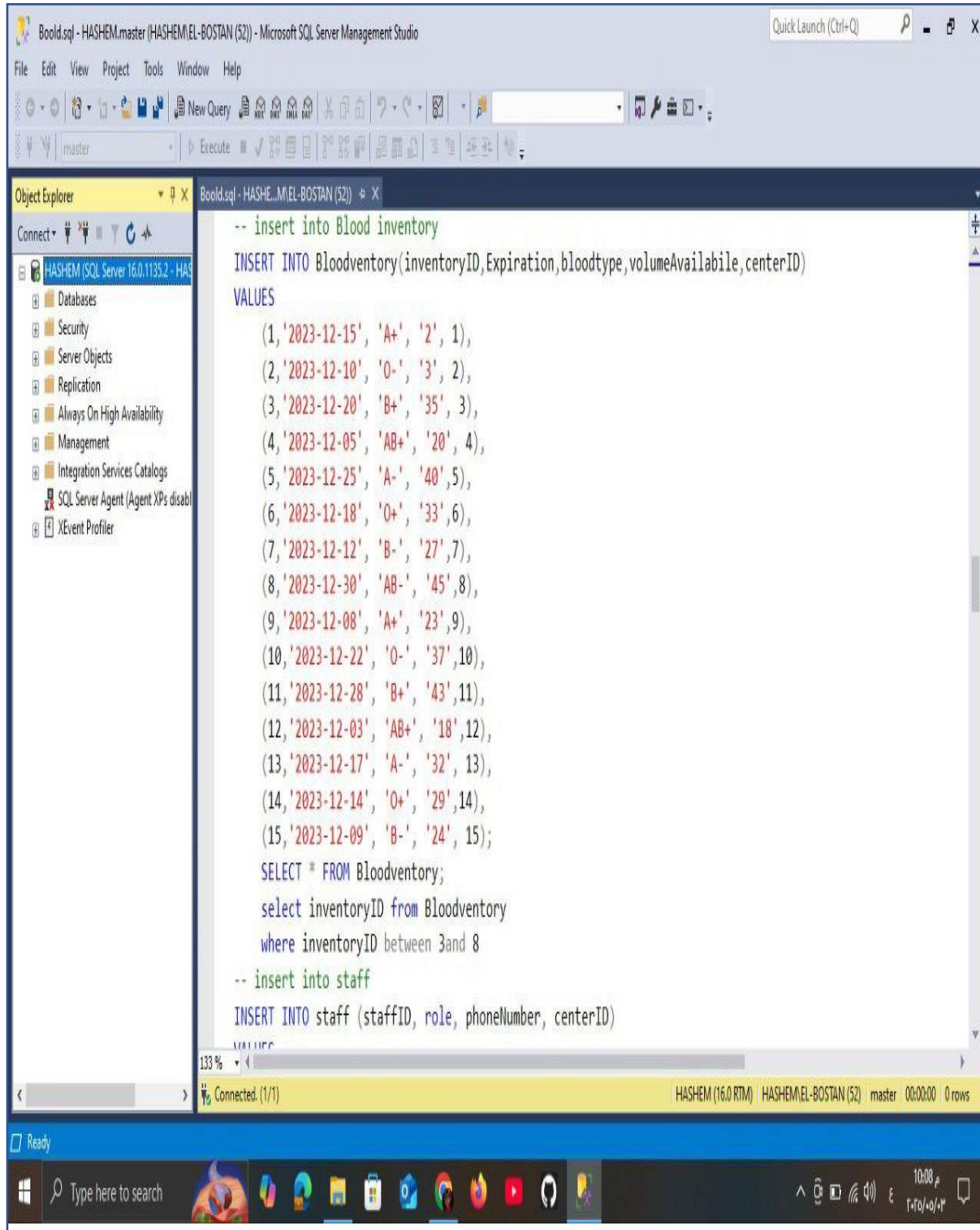
# ALL SQL SCRIPTS



# ALL SQL SCRIPTS

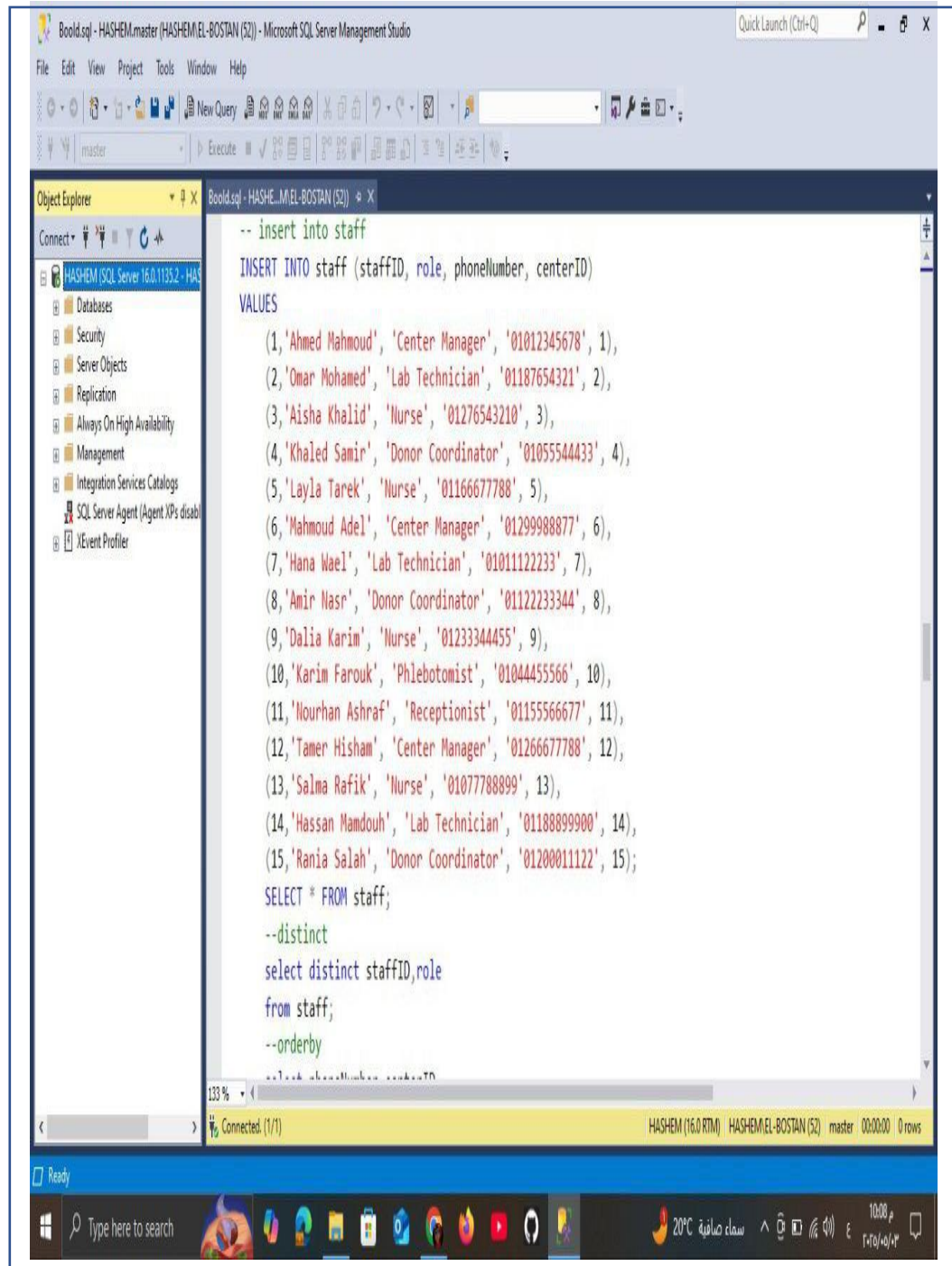


# ALL SQL SCRIPTS

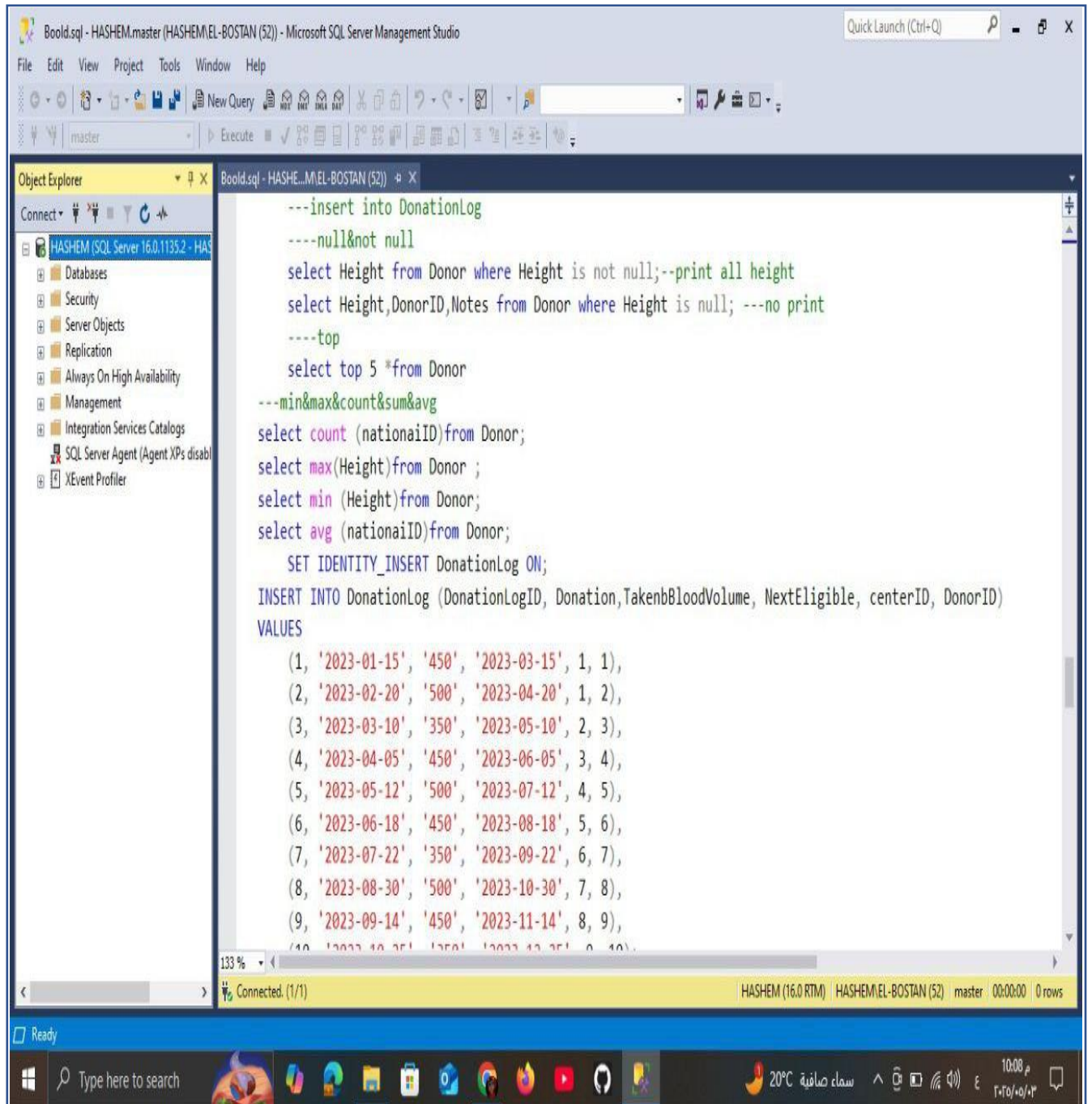




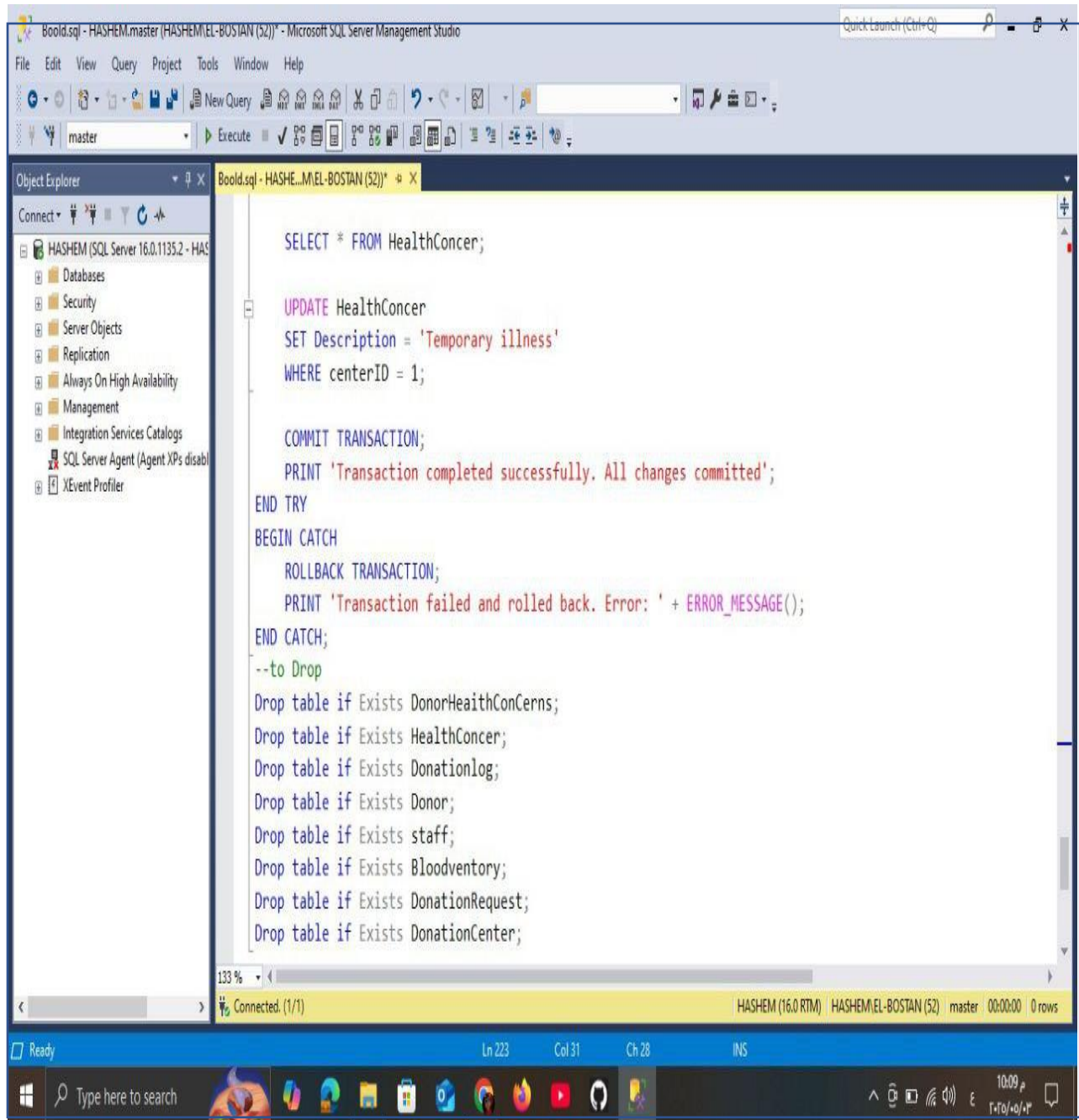
# ALL SQL SCRIPTS



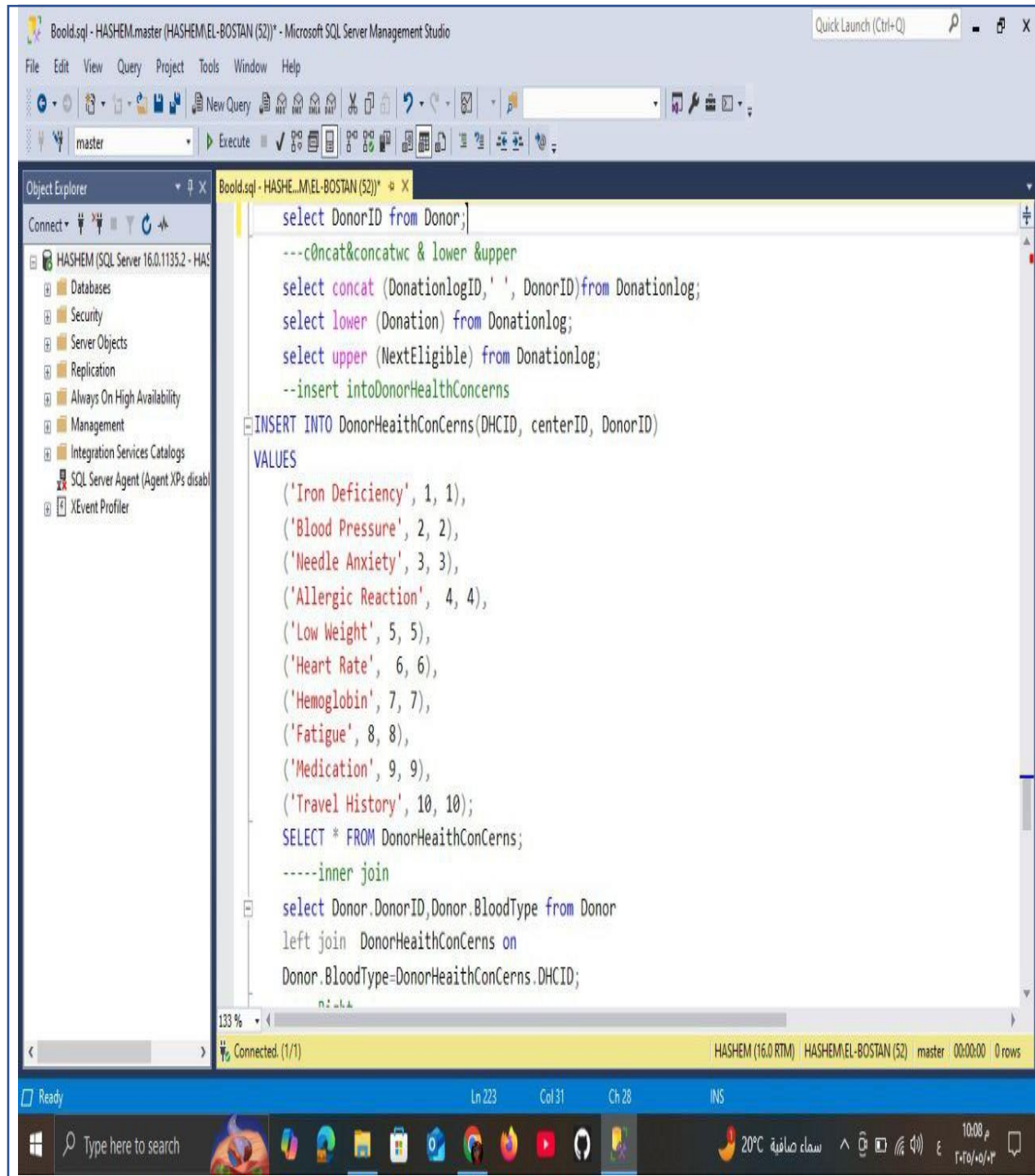
# ALL SQL SCRIPTS



# ALL SQL SCRIPTS

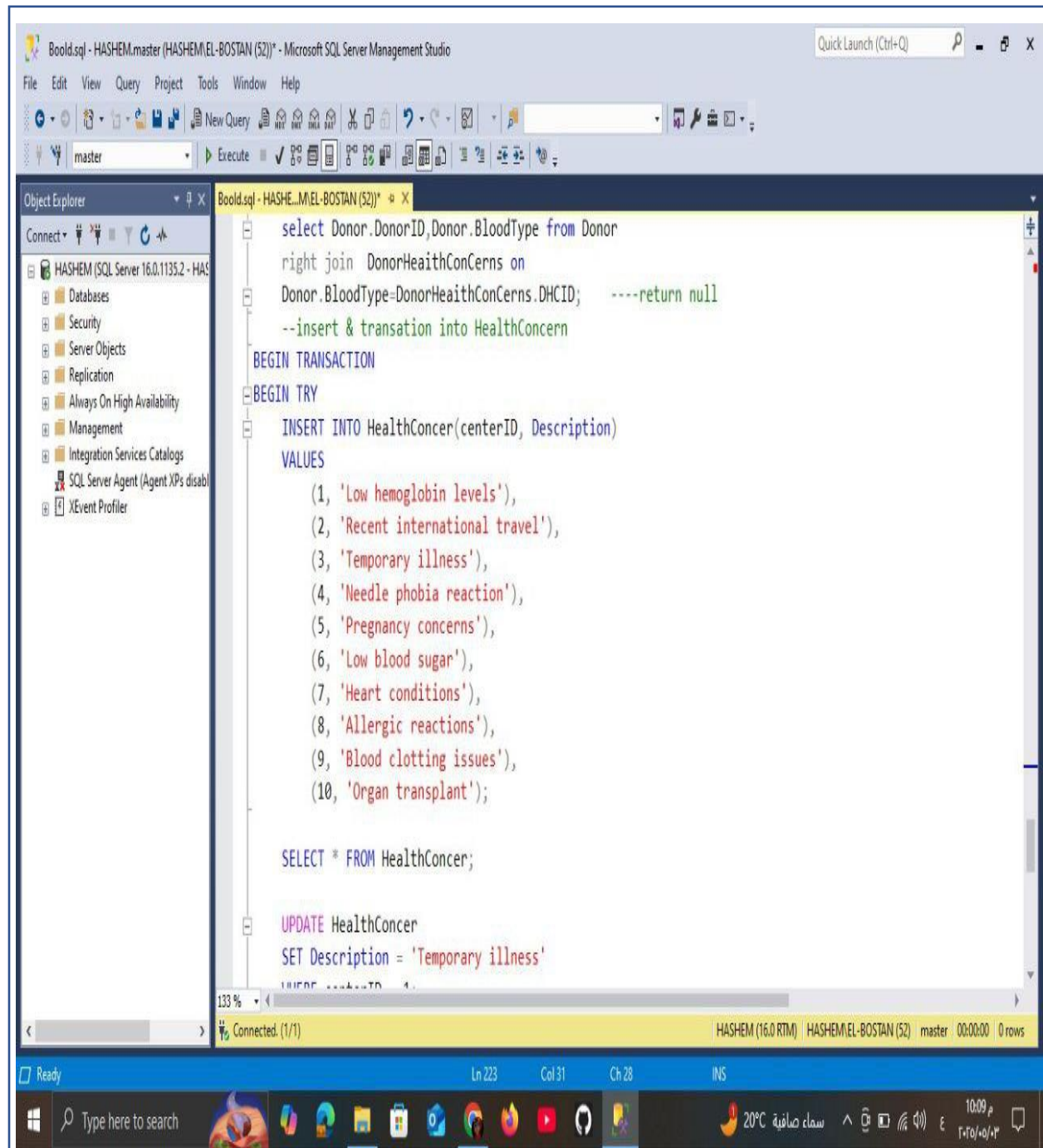


# ALL SQL SCRIPTS





# ALL SQL SCRIPTS



# SCREENSHOTS OF RESULTS

Boold.sql - HASHEM.master (HASHEM.EL-BOSTAN (51)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

master Execute

Object Explorer

Connect

HASHEM (SQL Server 16.0.1135.2 - HASHEM.EL-BOSTAN (51))

Databases

Security

Server Objects

Replication

Always On High Availability

Management

Integration Services Catalogs

SQL Server Agent (Agent XPs disabled)

XE Event Profiler

Boold.sql - HASHEM.EL-BOSTAN (51)

```
(14, 'Veterans Aid Post', 'Veteran Donations', 1555123456, '8:00 AM - 5:00 PM', '1100 Honor Street, Vettown')
(15, 'Green Earth Recycling', 'Environmental Donations', 1555234567, '7:30 AM - 5:30 PM', '1200 Eco Lane, Natureville')
SELECT * FROM DonationCenter;
-- insert into DonationRequest
INSERT INTO DonationRequest(RequestingCenterID, bloodtype, urgencylevel, Requested, ...)
```

133 %

Results Messages

centerID	Name	type	contactnumber	openingHours	address
1	Central Blood Bank	Blood Donation	1234567890	8:00 AM - 6:00 PM	123 Main St, Cityville
2	Hope Medical Center	Medical Donations	1987654321	9:00 AM - 5:00 PM	456 Oak Ave, Townsville
3	Community Aid Hub	General Donations	1122334455	10:00 AM - 4:00 PM	789 Pine Rd, Villageon
4	LifeSaver Blood Center	Blood Donation	1555123456	7:00 AM - 7:00 PM	100 Health Ave, Medtown
5	Golden Heart Donations	Clothing Donation	1555987654	9:00 AM - 5:00 PM	200 Charity Lane, Compassion City
6	Future Hope Org	Book Donation	1555567890	10:00 AM - 6:00 PM	300 Education Blvd, Knowledgeville
7	Renewal Center	Furniture Donation	1555234567	8:00 AM - 4:00 PM	400 Reuse Road, Greenville
8	Plasma Plus	Plasma Donation	1555345678	6:00 AM - 8:00 PM	500 Medical Parkway, Sciencetown
9	Toy Joy Foundation	Toy Donation	1555456789	10:00 AM - 3:00 PM	600 Play Street, Childrentown
10	Food for All	Food Donation	1555678901	8:00 AM - 5:00 PM	700 Nourishment Lane, Hungerville
11	Tech Recycle Hub	Electronics Donation	1555789012	9:00 AM - 6:00 PM	800 Digital Drive, Techcity
12	Animal Care Haven	Pet Supply Donation	1555890123	8:30 AM - 4:30 PM	900 Paws Avenue, Petville
13	Crisis Support Center	Emergency Donati...	1555012345	24 hours	1000 Aid Road, Urgentville
14	Veterans Aid Post	Veteran Donations	1555123456	8:00 AM - 5:00 PM	1100 Honor Street, Vettown
15	Green Earth Recycling	Environmental Don...	1555234567	7:30 AM - 5:30 PM	1200 Eco Lane, Natureville

Query executed successfully. HASHEM (16.0 RTM) HASHEM.EL-BOSTAN (51) master 00:00:00 15 rows

Ready Ln 99 Col 34 Ch 31 INS

Type here to search 24°C مشمس جزئيًا ENG 01:46 م ٢٠٢٥/٠٥/٢٤



# SCREENSHOTS OF RESULTS

The screenshot displays the Microsoft SQL Server Management Studio interface. The title bar indicates the connection to 'Boold.sql - HASHEM.master (HASHEM\EL-BOSTAN (51))'. The menu bar includes File, Edit, View, Query, Project, Tools, Window, and Help. The toolbar shows various icons for file operations, query execution, and formatting. The Object Explorer on the left shows the server structure, including Databases, Security, Server Objects, Replication, Always On High Availability, Management, Integration Services Catalogs, SQL Server Agent, and XEvent Profiler. The central query editor shows a SQL query with four INSERT statements and a SELECT statement. The Results pane at the bottom displays the output of the query, which is a table with 19 rows. The table has columns: RequestingCenterID, bloodtype, urgencylevel, Requested, and centerID. The status bar at the bottom indicates 'Query executed successfully.' and 'HASHEM (16.0 RTM) HASHEM\EL-BOSTAN (51) master 00:00:00 19 rows'.

```
(7, 'B-', 'Medium', '2023-11-21', 7),  
(8, 'AB-', 'Low', '2023-11-22', 8),  
(9, 'A+', 'High', '2023-11-23', 9),  
(10, 'O-', 'Urgent', '2023-11-24', 10);  
SELECT * FROM DonationRequest;
```

	RequestingCenterID	bloodtype	urgencylevel	Requested	centerID
1	1	A+	High	2023-11-15	1
2	3	B+	Medium	2023-11-17	3
3	4	AB+	Low	2023-11-18	4
4	5	A-	High	2023-11-19	5
5	6	O+	Urgent	2023-11-20	6
6	7	B-	Medium	2023-11-21	7
7	8	AB-	Low	2023-11-22	8
8	9	A+	High	2023-11-23	9
9	10	O-	Urgent	2023-11-24	10
10	11	A+	High	2023-11-15	1
11	12	O-	Urgent	2023-11-16	2
12	13	B+	Medium	2023-11-17	3
13	14	AB+	Low	2023-11-18	4
14	15	A-	High	2023-11-19	5
15	16	O+	Urgent	2023-11-20	6
16	17	B-	Medium	2023-11-21	7
17	18	AB-	Low	2023-11-22	8
18	19	A+	High	2023-11-23	9
19	20	O-	Urgent	2023-11-24	10

Query executed successfully. HASHEM (16.0 RTM) HASHEM\EL-BOSTAN (51) master 00:00:00 19 rows

# SCREENSHOTS OF RESULTS

The screenshot displays the Microsoft SQL Server Management Studio interface. The central query editor shows a SQL query that has been executed successfully. The query is as follows:

```
(13, '2023-12-17', 'A-', '32', 13),  
(14, '2023-12-14', 'O+', '29', 14),  
(15, '2023-12-09', 'B-', '24', 15);  
SELECT * FROM BloodInventory;  
select inventoryID from BloodInventory
```

The results pane shows a table with 15 rows of data. The columns are inventoryID, Expiration, bloodtype, volumeAvailable, and centerID. The data is as follows:

inventoryID	Expiration	bloodtype	volumeAvailable	centerID
1	2023-12-15	A+	2	1
2	2023-12-10	O-	3	2
3	2023-12-20	B+	35	3
4	2023-12-05	AB+	20	4
5	2023-12-25	A-	40	5
6	2023-12-18	O+	33	6
7	2023-12-12	B-	27	7
8	2023-12-30	AB-	45	8
9	2023-12-08	A+	23	9
10	2023-12-22	O-	37	10
11	2023-12-28	B+	43	11
12	2023-12-03	AB+	18	12
13	2023-12-17	A-	32	13
14	2023-12-14	O+	29	14
15	2023-12-09	B-	24	15

The status bar at the bottom indicates that the query was executed successfully, returning 15 rows. The taskbar at the bottom shows the system clock as 01:47 PM on 12/20/2023, with a temperature of 24°C.

# SCREENSHOTS OF RESULTS

The screenshot displays the Microsoft SQL Server Management Studio (SSMS) interface. The title bar indicates the connection is to 'Boold.sql - HASHEM.master (HASHEM\EL-BOSTAN (51))'. The menu bar includes File, Edit, View, Query, Project, Tools, Window, and Help. The toolbar contains icons for New Query, Open, Save, Execute, and other standard database operations. The Object Explorer on the left shows the server structure for 'HASHEM (SQL Server 16.0.1135.2 - HASHEM\EL-BOSTAN (51))', including Databases, Security, Server Objects, Replication, Always On High Availability, Management, Integration Services Catalogs, SQL Server Agent, and XEvent Profiler. The central query editor shows a SQL query with three INSERT statements and a SELECT statement. The query is executed, and the Results pane displays a table with 15 rows. The status bar at the bottom indicates 'Query executed successfully.' and 'HASHEM (16.0 RTM) HASHEM\EL-BOSTAN (51) master 00:00:00 15 rows'. The Windows taskbar at the bottom shows the system clock as 01:47 PM on 10/10/2023, with a temperature of 24°C and various system icons.

```
(13, 'Salma Rafik', 'Nurse', '01077788899', 13),  
(14, 'Hassan Mamdouh', 'Lab Technician', '01188899900', 14),  
(15, 'Rania Salah', 'Donor Coordinator', '01200011122', 15);  
SELECT * FROM staff;  
--distinct
```

staffID	Name	role	phoneNumber	centerID	email
1	Ahmed Mahmoud	Center Manager	1012345678	1	NULL
2	Omar Mohamed	Lab Technician	1187654321	2	NULL
3	Aisha Khalid	Nurse	1276543210	3	NULL
4	Khaled Samir	Donor Coordinator	1055544433	4	NULL
5	Layla Tarek	Nurse	1166677788	5	NULL
6	Mahmoud Adel	Center Manager	1299908877	6	NULL
7	Hana Wael	Lab Technician	1011122233	7	NULL
8	Amit Naor	Donor Coordinator	1122233344	8	NULL
9	Dalia Karim	Nurse	1233344455	9	NULL
10	Karim Farouk	Phlebotomist	1044455566	10	NULL
11	Nourhan Ashraf	Receptionist	1155566677	11	NULL
12	Tamer Hisham	Center Manager	1266677788	12	NULL
13	Salma Rafik	Nurse	1077788899	13	NULL
14	Hassan Mamdouh	Lab Technician	1188899900	14	NULL
15	Rania Salah	Donor Coordinator	1200011122	15	NULL

Query executed successfully. HASHEM (16.0 RTM) HASHEM\EL-BOSTAN (51) master 00:00:00 15 rows

# SCREENSHOTS OF RESULTS

The screenshot displays the Microsoft SQL Server Management Studio interface. The title bar indicates the connection is to 'Boold.sql - HASHEM.master (HASHEM\EL-BOSTAN (51))'. The menu bar includes File, Edit, View, Query, Project, Tools, Window, and Help. The toolbar contains various icons for file operations, query execution, and formatting. The Object Explorer on the left shows the server structure for 'HASHEM (SQL Server 16.0.1135.2 - HASHEM\EL-BOSTAN (51))', including Databases, Security, Server Objects, Replication, Always On High Availability, Management, Integration Services Catalogs, SQL Server Agent, and XEvent Profiler. The central query editor shows the following SQL code:

```
from staff;  
--orderby  
select phoneNumber,centerID  
from staff  
order by phoneNumber ASC,centerID DESC;
```

The Results pane at the bottom displays the output of the query, showing 15 rows of data with columns 'phoneNumber' and 'centerID'. The status bar at the bottom indicates 'Query executed successfully.' and 'HASHEM (16.0 RTM) HASHEM\EL-BOSTAN (51) master 00:00:00 15 rows'.

	phoneNumber	centerID
1	1011122233	7
2	1012345678	1
3	1044555566	10
4	1055544433	4
5	1077788899	13
6	1122233344	8
7	1155566677	11
8	1166677788	5
9	1187654321	2
10	1188899900	14
11	1200011122	15
12	1233344455	9
13	1266677788	12
14	1276543210	3
15	1299988877	6



# SCREENSHOTS OF RESULTS

The screenshot displays the Microsoft SQL Server Management Studio interface. The title bar indicates the connection is to 'Boold.sql - HASHEM.master (HASHEM\EL-BOSTAN (51))'. The menu bar includes File, Edit, View, Query, Project, Tools, Window, and Help. The toolbar contains various icons for file operations, query execution, and formatting. The Object Explorer on the left shows the server structure, including Databases, Security, Server Objects, Replication, Always On High Availability, Management, Integration Services Catalogs, SQL Server Agent, and XEvent Profiler. The central query window shows the following SQL script:

```
(7, 'Regular platelet donor', 'Excellent', 182,17, '1984-11-11', 'B-', 6, 9),  
(8, 'New donor', 'Good', 165,18, '2003-06-06', 'AB-', 7, 10),  
(9, 'Military donor', 'Excellent',19, 178, '1986-09-09', 'A+', 8, 11),  
(10, 'Student donor', 'Fair', 160,20, '2004-04-04', 'O-', 9, 12);  
SELECT * FROM Donor;
```

The Results tab shows the output of the query, displaying 10 rows of data. The columns are DonorID, Notes, HealthStatus, Height, NationalID, DatedBirth, BloodType, centerID, and staffID. The data is as follows:

DonorID	Notes	HealthStatus	Height	NationalID	DatedBirth	BloodType	centerID	staffID
1	Regular donor	Excellent	123	11	1990-05-15	A+	1	1
2	First-time donor	Good	162	12	1995-08-22	O-	1	2
3	Iron levels monitored	Fair	180	13	1988-12-10	B+	2	4
4	VIP donor	Excellent	168	14	2000-01-01	AB+	3	6
5	Deferred until June	Poor	172	15	1985-07-07	A-	4	7
6	Allergic to antiseptic	Good	158	16	2002-03-03	O+	5	8
7	Regular platelet donor	Excellent	182	17	1984-11-11	B-	6	9
8	New donor	Good	165	18	2003-06-06	AB-	7	10
9	Military donor	Excellent	19	178	1986-09-09	A+	8	11
10	Student donor	Fair	160	20	2004-04-04	O-	9	12

The status bar at the bottom indicates 'Query executed successfully.' and shows the server name 'HASHEM (16.0 RTM)', the database 'HASHEM\EL-BOSTAN (51)', the user 'master', and the execution time '00:00:00' with '10 rows' returned. The Windows taskbar at the bottom shows the system clock as 01:47 PM on 12/20/2023, with a temperature of 24°C and various system icons.

# SCREENSHOTS OF RESULTS

The screenshot displays the Microsoft SQL Server Management Studio (SSMS) interface. The main window shows a query executed on the 'master' database of the 'HASHEM' server. The query filters for donors with a 'Good' health status and blood types 'O-' or 'O+'. The results pane shows two rows of data.

**Query:**

```
select *from Donor
where HealthStatus='Good'
and BloodType='O-' OR BloodType='O+';
--not
select *from Donor
```

**Results:**

DonorID	Notes	HealthStatus	Height	NationalID	DatedofBirth	BloodType	centerID	staffID	
1	2	First-time donor	Good	162	12	1995-08-22	O-	1	2
2	6	Allergic to antiseptic	Good	158	16	2002-03-03	O+	5	8

**Status Bar:** Query executed successfully. HASHEM (16.0 RTM) HASHEM\EL-BOSTAN (51) master 00:00:00 2 rows



# SCREENSHOTS OF RESULTS

The screenshot displays the Microsoft SQL Server Management Studio interface. The title bar indicates the connection to 'Boold.sql - HASHEM.master (HASHEM\EL-BOSTAN (51))'. The menu bar includes File, Edit, View, Query, Project, Tools, Window, and Help. The toolbar contains various icons for file operations, query execution, and formatting. The Object Explorer on the left shows the server structure for 'HASHEM (SQL Server 16.0.11352 - HASHEM\EL-BOSTAN (51))', including Databases, Security, Server Objects, Replication, Always On High Availability, Management, Integration Services Catalogs, SQL Server Agent, and XEvent Profiler. The central query editor shows the following SQL code:

```
select Height, DonorID, Notes from Donor where Height is null; ---no print
---top
select top 5 * from Donor
---min&max&count&sum&avg
select count (nationalID) from Donor;
```

The Results pane displays the output of the query, showing 5 rows of data from the Donor table. The columns are DonorID, Notes, HealthStatus, Height, NationalID, DateofBirth, BloodType, centerID, and staffID.

DonorID	Notes	HealthStatus	Height	NationalID	DateofBirth	BloodType	centerID	staffID
1	Regular donor	Excellent	123	11	1990-05-15	A+	1	1
2	First-time donor	Good	162	12	1995-08-22	O-	1	2
3	Iron levels monitored	Fair	180	13	1988-12-10	B+	2	4
4	VIP donor	Excellent	168	14	2000-01-01	AB+	3	6
5	Deferred until June	Poor	172	15	1985-07-07	A-	4	7

The status bar at the bottom indicates 'Query executed successfully.' and provides details about the execution: 'HASHEM (16.0 RTM) HASHEM\EL-BOSTAN (51) master 00:00:00 5 rows'.

# SCREENSHOTS OF RESULTS

The screenshot displays the Microsoft SQL Server Management Studio interface. The central query editor shows the following SQL code:

```
--min&max&count&avg  
select count (nationaiID)from Donor;  
select max(Height)from Donor ;  
select min (Height)from Donor;  
select avg (nationaiID)from Donor;
```

The Results pane below the query editor shows the output of the first query, which is a single row with the value 10. The status bar at the bottom indicates that the query was executed successfully.

(No column name)
1 10

Query executed successfully. HASHEM (16.0 RTM) HASHEM\EL-BOSTAN (51) master 00:00:00 4 rows

# SCREENSHOTS OF RESULTS

The screenshot displays the Microsoft SQL Server Management Studio interface. The central query editor shows a SQL query that inserts data into the DonationLog table and then selects all records from it. The query is as follows:

```
(8, '2023-08-30', '500', '2023-10-30', 7, 8),  
(9, '2023-09-14', '450', '2023-11-14', 8, 9),  
(10, '2023-10-25', '350', '2023-12-25', 9, 10);  
SELECT * FROM DonationLog;  
update DonationLog
```

The Results pane below the query editor shows the output of the SELECT statement, displaying 8 rows of data from the DonationLog table. The data is as follows:

	DonationLogID	Donation	TakenBloodVolume	NextEligible	centerID	DonorID
1	3	2023-03-10	200	2023-05-15	2	3
2	4	2023-04-05	450	2023-06-05	3	4
3	5	2023-05-12	500	2023-07-12	4	5
4	6	2023-06-18	450	2023-08-18	5	6
5	7	2023-07-22	350	2023-09-22	6	7
6	8	2023-08-30	500	2023-10-30	7	8
7	9	2023-09-14	450	2023-11-14	8	9
8	10	2023-10-25	350	2023-12-25	9	10

The status bar at the bottom indicates that the query was executed successfully, returning 8 rows. The Windows taskbar at the very bottom shows the system clock as 01:49 PM on 10/10/2023, with a temperature of 24°C.

# SCREENSHOTS OF RESULTS

The screenshot displays the Microsoft SQL Server Management Studio interface. The main window shows a SQL query in the query editor, which is a UNION query combining data from two tables: Donationlog and Donor. The query is as follows:

```
---UNION
select DonorID from Donationlog
union all
select DonorID from Donor;
---HAVING
```

The query has been executed successfully, and the results are displayed in the Results pane. The results show a list of DonorID values, ranging from 1 to 18, with some values repeated. The status bar at the bottom indicates that the query was executed successfully and returned 18 rows.

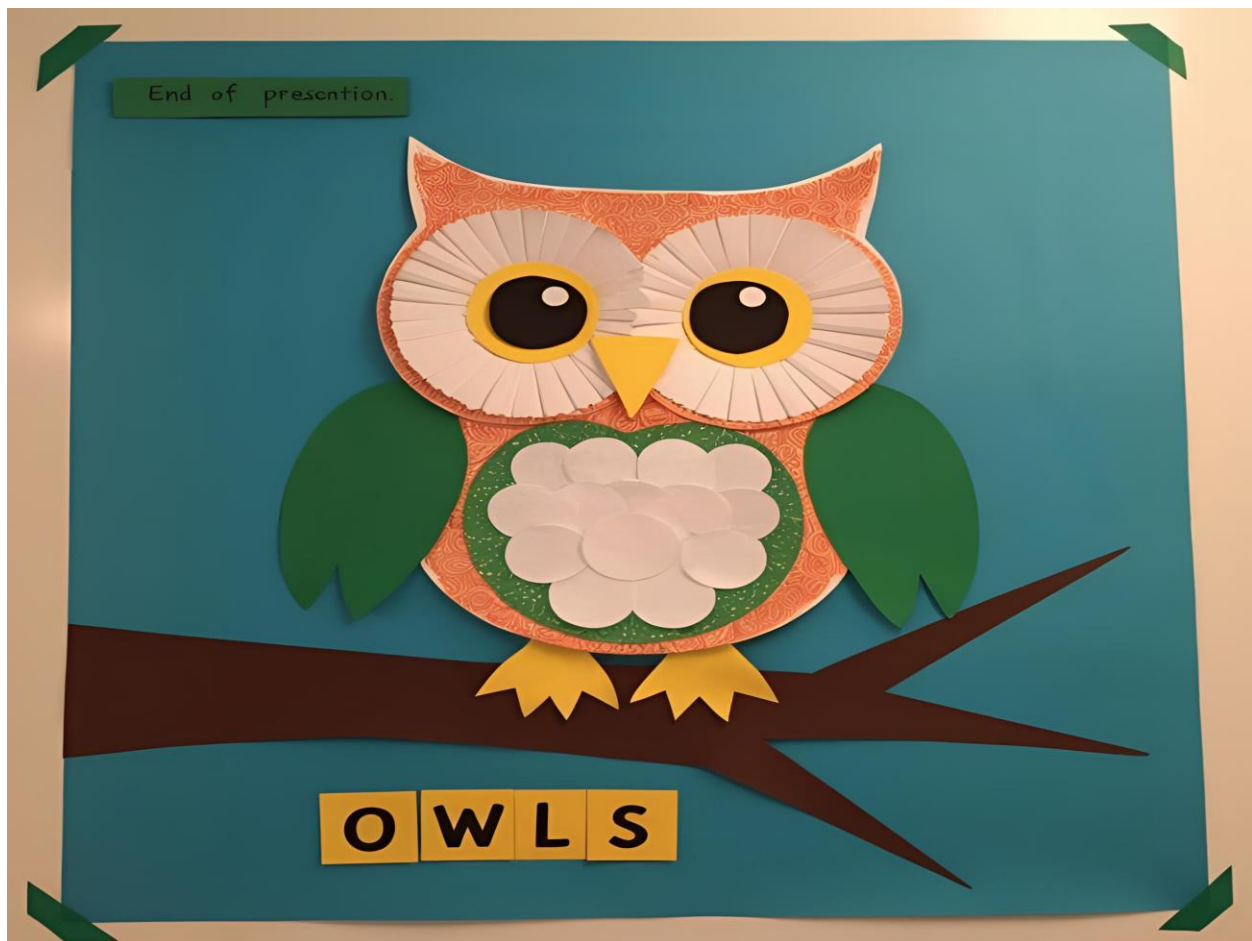
DonorID
3
4
5
6
7
8
9
10
1
2
3
4
5
6
7
8
10
9

Query executed successfully. HASHEM (16.0 RTM) HASHEM\EL-BOSTAN (51) master | 00:00:00 | 18 rows



# ANSWERS TO THE SQL QUESTIONS:

## IN SQL SCRIPTS AND SCREENSHOTS



Thank you for your effort TA.Doha 💙