

Course : CS/DSA-4513 – DATABASE MANAGEMENT

Section : 001

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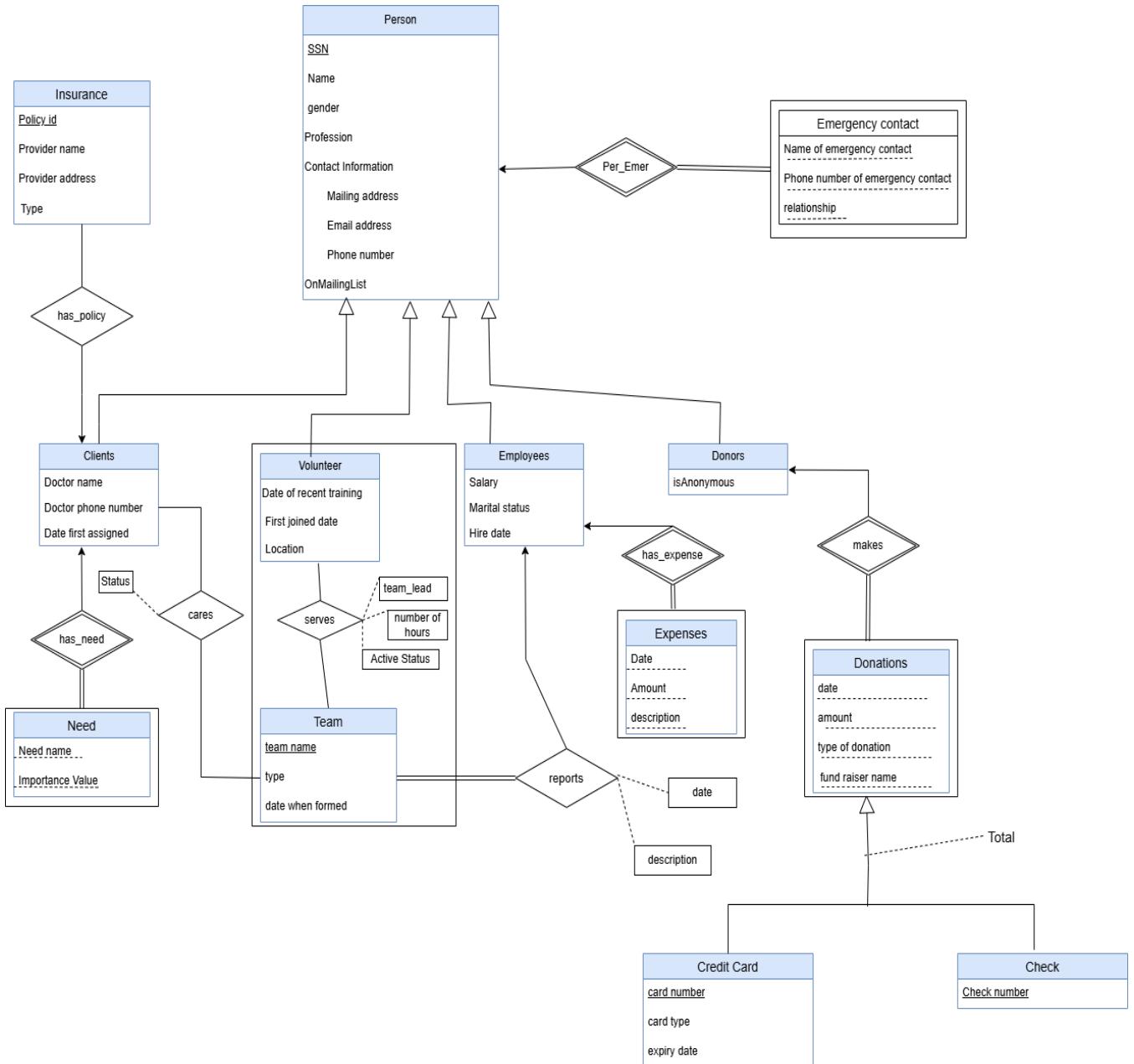
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Title: A Patient Assistant Network Database System

Tasks Performed	Page Number
Task 1. ER Diagram	3
Task 2. Relational Database Schemas	4-5
Task 3.	
3.1. Discussion of storage structures for tables	6-8
3.2. Discussion of storage structures for tables (Azure SQL Database)	8-10
Task 4. SQL statements and screenshots showing the creation of tables in Azure SQL Database	10-14
Task 5.	
5.1 SQL statements (and Transact SQL stored procedures, if any)	15-22
Implementing all queries (1-15 and error checking)	
5.2 The Java source program and screenshots showing its successful compilation	23-38
Task 6. Java program Execution	39-71

Task 1

ER diagram



Task 2

Convert the ER diagram in Task 1 to a Relational Database (i.e. a set of relational schemas)

Person(SSN, Name, gender, Profession, Mailing_address, Email_address, Phone_number, OnMailingList)

Clients(SSN, Name, gender, Profession, Mailing_address, Email_address, Phone_number, OnMailingList, Doctor_name, Doctor_phone_number, Date_first_assigned)

Volunteer(SSN, Name, gender, Profession, Mailing_address, Email_address, Phone_number, OnMailingList, Date_of_recent_training, First_joined_date, Location)

Employees(SSN, Name, gender, Profession, Mailing_address, Email_address, Phone_number, OnMailingList, Salary, Marital_status, Hire_date)

Donors(SSN, Name, gender, Profession, Mailing_address, Email_address, Phone_number, OnMailingList, isAnonymous)

Need(SSN, Need_name, Importance_value)

Insurance(Policy_id, Provider_name, Provider_address, Type)

has_policy(Policy_id, SSN)

Team(team_name, type, date_when_formed)

serves(SSN, team_name, team_lead, number_of_hours, Active_status)

cares(SSN, team_name, Status)

Expenses(SSN, Date, Amount, description)

reports(team_name, SSN, date, description)

Donations(SSN, date, amount, type_of_donation, fund raiser name)

Credit_Card(SSN, date, amount, type_of_donation, fund raiser name, card_number, card_type, expiry_date)

Check(SSN, date, amount, type_of_donation, fund raiser name, Check_number)

Emergency_contact(SSN, Name_of_emergency_contact,
phone_number_of_emergency_contact, relationship)

Task 3

Task 3.1:

Table	Query # and type	Search key	Query Frequency	Selected File Organization	Justifications
Person	(12) random search	SSN	1/week	Index sequential file on search key SSN	Index sequential file also gives efficient random and range searches
Clients	(2) insert (8) random search (15) deletion (10) random serach	SSN, Doctor_name Policy_id, type SSN	1/week 1/week 4/year 4/year	B+ tree	B+ tree efficient insertion, deletion, and searching It has logarithmic time for insertion deletiona and random search
Volunteer	(3) insert (4) random search (10) random search	team_name SSN	2/month 30/month 4/year	Indexed sequential file organization on search key SSN	B+ tree requires reconstructing for just 2/month insertions so we can use index sequential file It also supports faster access by using the index by primary index
Employees	(5) insert (13) random search (14) random search	SSN salary	1/year 1/year 1/week	Index Sequential file on search key salary	We can also use dynamic hashing but there are two key here so if we take considering one it makes as hard to find record based on other key
Donors	(7) insert		1/day	Index	Becease in this the

	(13) random search	amount	1/week	Sequential file on search key amount	records are sorted based on the search key and we want data based on amount
Need	(15) random search	Need name	4/year	Dynamic hashing on search key Need name	We can do using constant time $O(1)$ if we use hashing
Insurance	(15) deletion	Policy_id	4/year	B+ tree on Policy_id	Deletion is efficient if we use B+ tree as it is also very infrequent 4/year
Team	(1) insertion	Date team_name Salary	1/month	B+ tree	Hashing doesn't support range search So b+ tree is used as it is efficient than indexed sequential file organization
	(11) range search		1/month		
	(10) random search		1/year		
	(14) random search		4/year		
Expenses	(6) insert (9) range search	SSN,date	1/day 1/month	B+ tree on SSN and Date	Range search cannot be done using hashing so we can use B+ tree
Donations	(7) insert (13) range search	SSN	1/day 1/week	B+ tree on index SSN	Hashing cannot be used for range search.
Credit card	(13) random search	SSN	1/week	Dynamic hashing on search key SSN	Takes $O(1)$ as we are using hash function and we can easily retrieve it using $h(x)$
Check	(13) random search	SSN	1/week	Dynamci hashing on search key SSN	It also take $O(1)$ constant time as we directly point out the block with the record
Emergency contact	(12) random search	SSN, Name of emergency	1/week	Indexed sequential file	Ssn is the primary index and we can

		contact		organization on search key SSN	easily build the sparse index file easily
--	--	---------	--	--------------------------------------	-------------------------------------------------

Task 3.2:

Table Name	Queries	Search Key	Query Frequency	Selected Azure SQL Storage Structure	Justifications
Person	(3) range search (12) random search	Ssn name	1/week 1/month	Clustered index on ssn and non clustered index on name	
Volunteers	3. Insert 10. Random search	Ssn team		Heap storage	
team	1.insert 11.range search 10.randomse rch 14.random search			Clustered index on date and non clustered inde on salary and team	

Task 4:

```
CREATE TABLE Person (
    SSN CHAR(11) PRIMARY KEY,
    Name VARCHAR(100),
    Gender CHAR(1),
    Profession VARCHAR(100),
    Mailing_address VARCHAR(255),
    Email_address VARCHAR(100),
    Phone_number CHAR(10),
    OnMailingList BIT
);
```

Commands completed successfully.

Total execution time: 00:00:00.048

```
CREATE TABLE Clients (
    SSN CHAR(11) PRIMARY KEY,
    Name VARCHAR(100),
    Gender CHAR(1),
    Profession VARCHAR(100),
    Mailing_address VARCHAR(255),
    Email_address VARCHAR(100),
    Phone_number CHAR(10),
    OnMailinglist BIT,
    Doctor_name VARCHAR(100),
    Doctor_phone_number CHAR(10),
    Date_first_assigned DATE,
    FOREIGN KEY (SSN) REFERENCES Person(SSN)
);
```

Commands completed successfully.

Total execution time: 00:00:00.053

```
CREATE TABLE Volunteer (
    SSN CHAR(11) PRIMARY KEY,
    Name VARCHAR(100),
    Gender CHAR(1),
    Profession VARCHAR(100),
    Mailing_address VARCHAR(255),
    Email_address VARCHAR(100),
    Phone_number CHAR(10),
    OnMailingList BIT,
    Date_of_recent_training DATE,
    First_joined_date DATE,
    Location VARCHAR(100),
    FOREIGN KEY (SSN) REFERENCES Person(SSN)
);
```

Commands completed successfully.

Total execution time: 00:00:00.040

```
+ ↓ ↺ ⏷ ⏸ ⏹ ...  
1 CREATE TABLE Employees (|  
2   SSN CHAR(11) PRIMARY KEY,  
3   Name VARCHAR(100),  
4   Gender CHAR(1),  
5   Profession VARCHAR(100),  
6   Mailing_address VARCHAR(255),  
7   Email_address VARCHAR(100),  
8   Phone_number CHAR(10),  
9   OnMailinglist BIT,  
10  Salary DECIMAL(10, 2),  
11  Marital_status VARCHAR(50),  
12  Hire_date DATE,  
13  FOREIGN KEY (SSN) REFERENCES Person(SSN)  
14 );
```

Commands completed successfully.

Total execution time: 00:00:00.055

```
+ ↓ ↺ ⏷ ⏸ ⏹ ...  
1 CREATE TABLE Donors (|  
2   SSN CHAR(11) PRIMARY KEY,  
3   Name VARCHAR(100),  
4   Gender CHAR(1),  
5   Profession VARCHAR(100),  
6   Mailing_address VARCHAR(255),  
7   Email_address VARCHAR(100),  
8   Phone_number CHAR(10),  
9   OnMailinglist BIT,  
10  isAnonymous BIT,|  
11  FOREIGN KEY (SSN) REFERENCES Person(SSN)  
12 );
```

Commands completed successfully.

Total execution time: 00:00:00.041

```
+ ↓ ↺ ⏷ ⏸ ⏹ ...  
1 CREATE TABLE Need (|  
2   SSN CHAR(11),  
3   Need_name VARCHAR(100),  
4   Importance_value INT,  
5   PRIMARY KEY (SSN, Need_name),  
6   FOREIGN KEY (SSN) REFERENCES Person(SSN)  
7 );
```

Commands completed successfully.

Total execution time: 00:00:00.052

```
+ ↓ ↺ ⏷ ⏸ ⏹ ...  
1 CREATE TABLE Insurance (|  
2   Policy_id CHAR(20) PRIMARY KEY,  
3   Provider_name VARCHAR(100),  
4   Provider_address VARCHAR(255),  
5   Type VARCHAR(50)  
6 );
```

Commands completed successfully.

Total execution time: 00:00:00.046

SQL

```
+ ↓ ↑ ⏪ ⏴ ⏵ ⏷ ⏸ ⏹ ...  
1 CREATE TABLE has_policy (  
2     Policy_id CHAR(20),  
3     SSN CHAR(11),  
4     PRIMARY KEY (Policy_id, SSN),  
5     FOREIGN KEY (Policy_id) REFERENCES Insurance(Policy_id),  
6     FOREIGN KEY (SSN) REFERENCES Person(SSN)  
7 );
```

Commands completed successfully.

Total execution time: 00:00:00.041

```
+ ↓ ↑ ⏪ ⏴ ⏵ ⏷ ⏸ ⏹ ...  
1 CREATE TABLE Team (  
2     team_name VARCHAR(100) PRIMARY KEY,  
3     type VARCHAR(50),  
4     date_when_formed DATE  
5 );
```

Commands completed successfully.

Total execution time: 00:00:00.041

```
+ ↓ ↑ ⏪ ⏴ ⏵ ⏷ ⏸ ⏹ ...  
1 CREATE TABLE serves (  
2     SSN CHAR(11),  
3     team_name VARCHAR(100),  
4     team_lead VARCHAR(100),  
5     number_of_hours INT,  
6     Active_status BIT,  
7     PRIMARY KEY (SSN, team_name),  
8     FOREIGN KEY (SSN) REFERENCES Person(SSN),  
9     FOREIGN KEY (team_name) REFERENCES Team(team_name)  
10 );
```

Commands completed successfully.

Total execution time: 00:00:00.042

```
+ ↓ ↑ ⏪ ⏴ ⏵ ⏷ ⏸ ⏹ ...  
1 CREATE TABLE cares [  
2     SSN CHAR(11),  
3     team_name VARCHAR(100),  
4     statuss VARCHAR(50),  
5     PRIMARY KEY (SSN, team_name),  
6     FOREIGN KEY (SSN) REFERENCES Person(SSN),  
7     FOREIGN KEY (team_name) REFERENCES Team(team_name)  
8 ];
```

Commands completed successfully.

Total execution time: 00:00:00.057

```
+ ↓ ↑ ⏷ ⏸ ⏹ ...  
▶ 1 CREATE TABLE Expenses (|  
2     SSN CHAR(11),  
3     Date DATE,  
4     Amount DECIMAL(10, 2),  
5     Description VARCHAR(255),|  
6     PRIMARY KEY (SSN, Date),  
7     FOREIGN KEY (SSN) REFERENCES Person(SSN)  
8 );  
  
Commands completed successfully.  
  
Total execution time: 00:00:00.076
```

```
+ ↓ ↑ ⏷ ⏸ ⏹ ...  
▶ 1 CREATE TABLE reports (|  
2     team_name VARCHAR(100),|  
3     SSN CHAR(11),  
4     Date DATE,  
5     Description VARCHAR(255),  
6     PRIMARY KEY (team_name, SSN, Date),  
7     FOREIGN KEY (team_name) REFERENCES Team(team_name),  
8     FOREIGN KEY (SSN) REFERENCES Person(SSN)|  
9 );  
  
Commands completed successfully.  
  
Total execution time: 00:00:00.044
```

```
+ ↓ ↑ ⏷ ⏸ ⏹ ...  
▶ 1 CREATE TABLE Donations (|  
2     SSN CHAR(11),  
3     Date DATE,|  
4     Amount DECIMAL(10, 2),  
5     Type_of_donation VARCHAR(50),  
6     Fund_raiser_name VARCHAR(100),  
7     PRIMARY KEY (SSN, Date),  
8     FOREIGN KEY (SSN) REFERENCES Person(SSN)|  
9 );  
  
Commands completed successfully.  
  
Total execution time: 00:00:00.059
```

```
+ ↓ ↑ ⏹ ⏺ ⏻ ...  
1 CREATE TABLE Credit_Card (|  
2     SSN CHAR(11),  
3     Date DATE,  
4     Amount DECIMAL(10, 2),  
5     Type_of_donation VARCHAR(50),  
6     Fund_raiser_name VARCHAR(100),  
7     Card_number CHAR(16),|  
8     Card_type VARCHAR(50),  
9     Expiry_date DATE,  
10    PRIMARY KEY (SSN, Date, Card_number),  
11    FOREIGN KEY (SSN) REFERENCES Person(SSN)  
12 );  
  
Commands completed successfully.  
  
Total execution time: 00:00:00.046
```

```
+ ↓ ↑ ⏹ ⏺ ⏻ ⏻ ...  
1 CREATE TABLE Check1 (|  
2     SSN CHAR(11),  
3     Date DATE,  
4     Amount DECIMAL(10, 2),  
5     Type_of_donation VARCHAR(50),  
6     Fund_raiser_name VARCHAR(100),  
7     Check_number CHAR(20),  
8     PRIMARY KEY (SSN, Date, Check_number),  
9     FOREIGN KEY (SSN) REFERENCES Person(SSN)|  
10 );  
  
Commands completed successfully.  
  
Total execution time: 00:00:00.062
```

```
+ ↓ ↑ ⏹ ⏺ ⏻ ⏻ ...  
1 CREATE TABLE Emergency_contact (|  
2     SSN CHAR(11),  
3     Name_of_emergency_contact VARCHAR(100),  
4     Phone_number_of_emergency_contact CHAR(10),  
5     Relationship VARCHAR(50),  
6     PRIMARY KEY (SSN, Name_of_emergency_contact),  
7     FOREIGN KEY (SSN) REFERENCES Person(SSN)|  
8 );  
  
Commands completed successfully.  
  
Total execution time: 00:00:00.040
```

Task 5

5.1 SQL statements for queries 1 to 15:

1.

```
[27] 1     INSERT INTO Team (team_name, type, date_when_formed)
2     VALUES ('Support Team', 'Support', GETDATE());
3
```

(1 row affected)

Total execution time: 00:00:00.061

2.

```
1 -- Insert into Person table first
2 INSERT INTO Person (SSN, Name, Gender, Profession, Mailing_address, Email_address, Phone_number, OnMailinglist)
3 VALUES ('12345678901', 'John Doe', 'M', 'Engineer', '123 Main St, City, State', 'johndoe@email.com', '1234567890', 1);
4
5 -- Insert into Clients table
6 INSERT INTO Clients (SSN, Name, Gender, Profession, Mailing_address, Email_address, Phone_number, OnMailinglist, Doctor_name, Doctor_phone_number, Date_first_assigned)
7 VALUES ('12345678901', 'John Doe', 'M', 'Engineer', '123 Main St, City, State', 'johndoe@email.com', '1234567890', 1, 'Dr. Smith', '2345678901', GETDATE());
8
9 -- Associate client with a team
10 INSERT INTO serves (SSN, team_name, team_lead, number_of_hours, Active_status)
11 VALUES ('12345678901', 'Support Team', 'Jane Doe', 10, 1);
12
```

(1 row affected)

(1 row affected)

(1 row affected)

Total execution time: 00:00:00.049

3.

```
1 -- Insert into Person table first
2 INSERT INTO Person (SSN, Name, Gender, Profession, Mailing_address, Email_address, Phone_number, OnMailinglist)
3 VALUES ('98765432101', 'Jane Smith', 'F', 'Teacher', '456 Elm St, City, State', 'janesmith@email.com', '9876543210', 1);
4
5 -- Insert into Volunteer table
6 INSERT INTO Volunteer (SSN, Name, Gender, Profession, Mailing_address, Email_address, Phone_number, OnMailinglist, Date_of_recent_training, First_joined_date, Location)
7 VALUES ('98765432101', 'Jane Smith', 'F', 'Teacher', '456 Elm St, City, State', 'janesmith@email.com', '9876543210', 1, GETDATE(), GETDATE(), 'Location A');
8
9 -- Associate volunteer with a team
10 INSERT INTO serves (SSN, team_name, statuss)
11 VALUES ('98765432101', 'Support Team', 'Active');
```

(1 row affected)

(1 row affected)

(1 row affected)

Total execution time: 00:00:00.051

4.

```
+ ↓ ↑ ⏷ ⏸ ...  
1   INSERT INTO serves (SSN, team_name, team_lead, number_of_hours, Active_status)  
2     VALUES ('98765432101', 'Support Team', 'Jane Doe', 20, 1);  
3  
4  
^  
(1 row affected)  
Total execution time: 00:00:00.038
```

5.

```
+ ↓ ↑ ⏷ ⏸ ...  
1   -- Insert into Person table first  
2   INSERT INTO Person (SSN, Name, Gender, Profession, Mailing_address, Email_address, Phone_number, OnMailingList)  
3     VALUES ('11223344501', 'Michael Johnson', 'M', 'Manager', '789 Oak St, City, State', 'michael@email.com', '1122334455', 1);  
4  
5   -- Insert into Employees table  
6   INSERT INTO Employees (SSN, Name, Gender, Profession, Mailing_address, Email_address, Phone_number, OnMailingList, Salary, Marital_Status, Hire_date)  
7     VALUES ('11223344501', 'Michael Johnson', 'M', 'Manager', '789 Oak St, City, State', 'michael@email.com', '1122334455', 1, 75000, 'Single', GETDATE());  
8  
9   -- Associate employee with a team  
10  INSERT INTO serves (SSN, team_name, team_lead, number_of_hours, Active_status)  
11    VALUES ('11223344501', 'Support Team', 'Jane Doe', 10, 1);  
12  
^  
(1 row affected)  
(1 row affected)  
(1 row affected)  
Total execution time: 00:00:00.054
```

6.

```
+ ↓ ↑ ⏷ ⏸ ...  
1   INSERT INTO Expenses (SSN, Date, Amount, Description)  
2     VALUES ('11223344501', GETDATE(), 200.50, 'Travel Expenses');  
3  
^  
(1 row affected)  
Total execution time: 00:00:00.042
```

7.

```
+ ↓ ↑ ⌂ ⌂ ...  
1 -- Insert into Person table first  
2 INSERT INTO Person (SSN, Name, Gender, Profession, Mailing_address, Email_address, Phone_number, OnMailinglist)  
3 VALUES ('22334455601', 'Sarah White', 'F', 'Donor', '321 Pine St, City, State', 'sarah@email.com', '2233445566', 1);  
4  
5 -- Insert into Donors table  
6 INSERT INTO Donors (SSN, Name, Gender, Profession, Mailing_address, Email_address, Phone_number, OnMailinglist, isAnonymous)  
7 VALUES ('22334455601', 'Sarah White', 'F', 'Donor', '321 Pine St, City, State', 'sarah@email.com', '2233445566', 1, 0);  
8  
9 -- Insert donations for the donor  
10 INSERT INTO Donations (SSN, Date, Amount, Type_of_donation, Fund_raiser_name)  
11 VALUES ('22334455601', GETDATE(), 500.00, 'General Fund', 'Fundraiser A');  
12  
  
(1 row affected)  
  
(1 row affected)  
  
(1 row affected)  
  
Total execution time: 00:00:00.056
```

8.

```
+ ↓ ↑ ⌂ ⌂ ...  
1 SELECT Doctor_name, Doctor_phone_number  
2 FROM Clients  
3 WHERE SSN = '12345678901';  
4  
  
(1 row affected)  
  
Total execution time: 00:00:00.066  
  
Doctor_name | Doctor_phone_number  
Dr. Smith | 2345678901
```

9.

```
+ ↓ ↑ ⌂ ⌂ ...  
1  SELECT E.Name, SUM(Ex.Amount) AS Total_Expenses  
2  FROM Employees E  
3  JOIN Expenses Ex ON E.SSN = Ex.SSN  
4  WHERE Ex.Date BETWEEN '2024-01-01' AND '2024-01-31'  
5  GROUP BY E.Name  
6  ORDER BY Total_Expenses DESC;  
7  
^  
(0 rows affected)  
Total execution time: 00:00:00.039  
  
Name Total_Expenses
```

10.

```
+ ↓ ↑ ⌂ ⌂ ...  
1  SELECT DISTINCT V.Name  
2  FROM Volunteer V  
3  JOIN cares C ON V.SSN = C.SSN  
4  JOIN serves S ON C.team_name = S.team_name  
5  JOIN Clients C1 ON S.team_name = C1.Doctor_name  
6  WHERE C1.SSN = '12345678901';  
7  
^  
(0 rows affected)  
Total execution time: 00:00:00.285  
  
Name
```

11.

```
+ ↓ ↑ ☰ ⏪ ⏩ ...  
1  SELECT team_name  
2  FROM Team  
3  WHERE date_when_formed > '2024-01-01';  
4
```

(5 rows affected)

Total execution time: 00:00:00.047

The screenshot shows a database query results window. At the top, there are several icons: a play button, a refresh, a search, a copy, a print, and a close. Below the toolbar is a table with the following data:

	team_name
1	B1
2	b2
3	New Team
4	NewTeam
5	Support Team

12.

```
1  SELECT P.Name, P.SSN, P.Phone_number, EC.Name_of_emergency_contact, EC.Phone_number_of_emergency_contact
2  FROM Person P
3  LEFT JOIN Emergency_contact EC ON P.SSN = EC.SSN;
4
```

(43 rows affected)

Total execution time: 00:00:00.051

	Name	SSN	Phone_number	Name_of_emergency_contact	Phone_number_of_emergency_contact
1	bro	111	9898989890	NULL	NULL
2	kiran	1111	4560390022	NULL	NULL
3	Michael Johnson	11223344501	1122334455	NULL	NULL
4	rohan	123	4055125699	NULL	NULL
5	John Doe	123-45-6789	1234567890	NULL	NULL
6	stark	1234	4056891246	NULL	NULL
7	John Doe	123456789	1234567890	NULL	NULL
8	John Doe	12345678901	1234567890	NULL	NULL
9	alex	2222	7896540099	NULL	NULL
10	Sarah White	22334455601	2233445566	NULL	NULL
11	sudharshan	234	4657238978	NULL	NULL
12	rahul	321	4902314567	NULL	NULL
13	tulasi	3333	9038210442	NULL	NULL
14	sudharshan	343	4329871234	NULL	NULL
15	sudharshan	453	475129089	NULL	NULL
16	sudharshan	456	3452139090	NULL	NULL
17	virat	45678	6789054321	NULL	NULL
18	john	458	7983241726	NULL	NULL

13.

```
1  SELECT D.Name, SUM(Don.Amount) AS Total_Donated, D.isAnonymous
2  FROM Donors D
3  JOIN Donations Don ON D.SSN = Don.SSN
4  JOIN Employees E ON D.SSN = E.SSN
5  GROUP BY D.Name, D.isAnonymous
6  ORDER BY Total_Donated DESC;
7
```

(0 rows affected)

Total execution time: 00:00:00.040

Name	Total_Donated	isAnonymous
------	---------------	-------------

14.

The screenshot shows a SQL query being executed in a database environment. The query is as follows:

```
1 UPDATE Employees
2 SET Salary = Salary * 1.10
3 WHERE SSN IN (
4     SELECT SSN
5     FROM serves
6     GROUP BY SSN
7     HAVING COUNT(DISTINCT team_name) > 1
8 );
9
```

The results indicate that 0 rows were affected, and the total execution time was 0:00:00.038.

15.

The screenshot shows a SQL query being executed in a database environment. The query is as follows:

```
1 DELETE FROM Clients
2 WHERE SSN NOT IN (SELECT SSN FROM has_policy)
3 AND SSN IN (
4     SELECT SSN FROM Need WHERE Need_name = 'Transportation' AND Importance_value < 5
5 );
6
```

The results indicate that 0 rows were affected, and the total execution time was 0:00:00.040.

Error checking:

```

Connected to Azure SQL Database successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
. Enter a new client into the database and associate him or her with one or more teams
. Enter a new volunteer into the database and associate him or her with one or more teams
. Enter the number of hours a volunteer worked this month for a particular team
. Enter a new employee into the database and associate him or her with one or more teams
. Enter an expense charged by an employee
. Enter a new donor, and associate him or her with several donations
. Retrieve the name and phone number of a particular doctor of a particular client
. Retrieve total expenses for each employee
0. Retrieve the list of volunteers that are members of teams that support a particular client
1. Retrieve the names of all teams that were founded after a particular date
2. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
3. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
email them
4. Increase the salary by 10% of all employees to whom more than one team must report
5. Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
6. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name)
8. Quit
Enter your choice: 2
Enter Client SSN: 45678
Enter Client Name: virat
Enter Gender
Enter clients professionbatsman
Enter mailing addressDelhi
Enter Email Address: virat@gmail.com
Enter Phone Number:989954321
s on mailing list yes=1/No=0 ?
Enter Doctor Namekohl
Enter Doctor Phone Number:5678904321
Enter Date When First Assigned (YYYY-MM-DD):2024-18-28
Enter team name to associateb2
Enter statusactive
Exception in thread "main" java.lang.IllegalArgumentException
        at java.time.LocalDate.of(LocalDate.java:141)
        at jsp_azure_test.FacultyManager.enterNewClientAndAssociateWithTeams(FacultyManager.java:208)
        at jsp_azure_test.FacultyManager.main(FacultyManager.java:34)

```

5.2 Java Source program and its execution

```
package jsp_azure_test;
import java.sql.*;
import java.util.Scanner;
import java.io.*;

public class FacultyManager {

    // Database credentials
    static final String DB_URL =
        "jdbc:sqlserver://mukk0001-sql-server.database.windows.net:1433;database=cs-dsa-4513-sql-db";
    static final String USER = "mukk0001";
    static final String PASS = "Rohan@123";

    // JDBC connection
    private static Connection conn;

    public static void main(String[] args) {
        try {
            // Connect to the Azure SQL Database
            conn = DriverManager.getConnection(DB_URL, USER, PASS);
            System.out.println("Connected to Azure SQL Database successfully.");

            Scanner scanner = new Scanner(System.in);
            int choice;

            do {
                displayMenu();
                choice = scanner.nextInt();

                switch (choice) {
                    case 1:
                        enterNewTeam();
                        break;
                    case 2:
                        enterNewClientAndAssociateWithTeams();
                        break;
                    case 3:
                        enterNewVolunteerAndAssociateWithTeams();
                        break;
                    case 4:
                        enterVolunteerHours();
                        break;
                    case 5:
                        enterNewEmployeeAndAssociateWithTeams();
                        break;
                    case 6:
                        enterExpense();
                        break;
                    case 7:
                        newDonorWithDonations();
                }
            } while (choice != 8);
        } catch (SQLException e) {
            e.printStackTrace();
        }
    }

    private void displayMenu() {
        System.out.println("1. Enter New Team");
        System.out.println("2. Enter New Client and Associate with Teams");
        System.out.println("3. Enter New Volunteer and Associate with Teams");
        System.out.println("4. Enter Volunteer Hours");
        System.out.println("5. Enter New Employee and Associate with Teams");
        System.out.println("6. Enter Expense");
        System.out.println("7. New Donor with Donations");
        System.out.println("8. Exit");
    }

    private void enterNewTeam() {
        // Implementation for entering new team details
    }

    private void enterNewClientAndAssociateWithTeams() {
        // Implementation for entering new client and associate with teams
    }

    private void enterNewVolunteerAndAssociateWithTeams() {
        // Implementation for entering new volunteer and associate with teams
    }

    private void enterVolunteerHours() {
        // Implementation for entering volunteer hours
    }

    private void enterNewEmployeeAndAssociateWithTeams() {
        // Implementation for entering new employee and associate with teams
    }

    private void enterExpense() {
        // Implementation for entering expense
    }

    private void newDonorWithDonations() {
        // Implementation for new donor with donations
    }
}
```

```

        break;
    case 8:
        getDoctorInfoForClient();
        break;
    case 9:
        getEmployeeExpensesByPeriod();
        break;
    case 10:
        getVolunteersForClient();
        break;
    case 11:
        getTeamsFoundedAfter();
        break;
    case 12:
        getAllPersonDetails();
        break;
    case 13:
        getEmployeeDonors();
        break;
    case 14:
        increaseSalaryForMultipleTeamsReport();
        break;
    case 15:
        deleteLowPriorityClients();
        break;
    case 16:
        importTeamsFromFile();
        break;
    case 17:
        viewVolunteerHoursForTeam();
        break;
    case 18:
        System.out.println("Exiting...");
        break;
    default:
        System.out.println("Invalid option. Please try again.");
    }
} while (choice != 18);

scanner.close();
conn.close();
System.out.println("Connection closed.");
} catch (SQLException e) {
    e.printStackTrace();
}
}

public static void displayMenu() {
    System.out.println("WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM");
    System.out.println("1. Enter a new team into the database");
    System.out.println("2. Enter a new client into the database and associate him or her with one or more teams");
    System.out.println("3. Enter a new volunteer into the database and associate him or her with one or more teams");
    System.out.println("4. Enter the number of hours a volunteer worked this month for a particular team");
}

```

```

        System.out.println("5. Enter a new employee into the database and associate him or her with one or more teams");
        System.out.println("6. Enter an expense charged by an employee");
        System.out.println("7. Enter a new donor and associate him or her with several donations ");
        System.out.println("8. Retrieve the name and phone number of the doctor of a particular client");
        System.out.println("9. Retrieve total expenses for each employee");
        System.out.println("10. Retrieve the list of volunteers that are members of teams that support a particular client");
        System.out.println("11. Retrieve the names of all teams that were founded after a particular date ");
        System.out.println("12. Retrieve the names, social security numbers, contact information, and emergency contact\n"
                + "information of all people in the database");
        System.out.println("13. Retrieve the name and total amount donated by donors that are also employees. The list\n"
                + "should be sorted by the total amount of the donations, and indicate if each donor wishes to\n"
                + "remain anonymous (");
        System.out.println("14. Increase the salary by 10% of all employees to whom more than one team must report");
        System.out.println("Delete all clients who do not have health insurance and whose value of importance for\n"
                + "transportation is less than 5");
        System.out.println("16. Import: enter new teams from a data file until the file is empty (the user must be asked\n"
                + "to enter the input file name).");
        System.out.println("17Export: Retrieve names and mailing addresses of all people on the mailing list and\n"
                + "output them to a data file instead of screen (the user must be asked to enter the output file\n"
                + "name).");
        System.out.println("18. Quit");
        System.out.print("Enter your choice: ");
    }
// 1
    public static void enterNewTeam() {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter Team Name: ");
        String teamName = scanner.nextLine();
        System.out.print("Enter Founded Date (YYYY-MM-DD): ");
        String foundedDate = scanner.nextLine();
        System.out.print("Enter the Type");
        String team_type = scanner.nextLine();
        String sql = "INSERT INTO Team (team_name, date_when_formed,type) VALUES (?, ?,?)";
        try (PreparedStatement pstmt = conn.prepareStatement(sql)) {
            pstmt.setString(1, teamName);
            pstmt.setDate(2, Date.valueOf(foundedDate));
            pstmt.setString(3, team_type);
            pstmt.executeUpdate();
            System.out.println("Team added successfully.");
        } catch (SQLException e) {
            e.printStackTrace();
        }
    }
// 2
    public static void enterNewClientAndAssociateWithTeams() {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter Client SSN: ");
        String clientSsn = scanner.nextLine();

        System.out.print("Enter Client Name: ");

```

```

String clientName = scanner.nextLine();
System.out.print("Enter Gender");
String clintGender= scanner.nextLine();

System.out.print("Enter clients profession");
String clientProfession= scanner.nextLine();
System.out.print("Enter mailing adress");
String clientMail = scanner.nextLine();
System.out.print("Enter email adress");
String clientEmail = scanner.nextLine();
System.out.print("Enter Phone Number");
String clientPhone = scanner.nextLine();
System.out.print("Is on mailing list yes=1/No=0 ?");
String clientIsOnMail = scanner.nextLine();
System.out.print("Enter Doctor Name");
String clientDoctorName = scanner.nextLine();
System.out.print("Enter Doctor Phone Number");
String clientDoctorPhone = scanner.nextLine();
System.out.print("Enter Date When First Assigned (YYYY-MM-DD):");
String ClientDateFirstAssigned=scanner.nextLine();
System.out.print("Enter team name to associate");
String teamname = scanner.nextLine();
System.out.print("Enter status");
String status = scanner.nextLine();
String sqlPerson="INSERT INTO Person
(SSN,Name,Gender,Profession,Mailing_address,Email_address,Phone_number,OnMailingList) VALUES
(?,?,?,?,?,?,?,?,?)";
String sqlClient = "INSERT INTO Clients (SSN,
Name,Gender,Profession,Mailing_address,Email_address,Phone_number,OnMailingList,Doctor_name,Doctor_phone
_number,Date_first_assigned) VALUES (?, ?,?,?,?,?,?, ?, ?, ?)";
String sqlAssoc = "INSERT INTO cares (SSN,team_name,status) VALUES (?, ?,?)";
try (PreparedStatement pstmtPerson = conn.prepareStatement(sqlPerson);
PreparedStatement pstmtClient = conn.prepareStatement(sqlClient);
PreparedStatement pstmtAssoc = conn.prepareStatement(sqlAssoc)) {

    pstmtPerson.setString(1, clientSsn);
    pstmtPerson.setString(2, clientName);
    pstmtPerson.setString(3, clintGender);
    pstmtPerson.setString(4, clientProfession);
    pstmtPerson.setString(5, clientMail);
    pstmtPerson.setString(6, clientEmail);
    pstmtPerson.setString(7, clientPhone);
    pstmtPerson.setString(8, clientIsOnMail);
    pstmtPerson.executeUpdate();

    pstmtClient.setString(1, clientSsn);
    pstmtClient.setString(2, clientName);
    pstmtClient.setString(3, clintGender);
    pstmtClient.setString(4, clientProfession);
    pstmtClient.setString(5, clientMail);
}

```

```

        pstmtClient.setString(6,clientEmail);
        pstmtClient.setString(7,clientPhone);
        pstmtClient.setString(8,clientlsonmail);
        pstmtClient.setString(9,clientDoctorname);
        pstmtClient.setString(10,clientDoctorPhone);
        pstmtClient.setDate(11, Date.valueOf(Clientdatefirstassigned));

        pstmtClient.executeUpdate();

        pstmtAssoc.setString(1, clientSsn);
        pstmtAssoc.setString(2, teamname);
        pstmtAssoc.setString(3,status);
        pstmtAssoc.executeUpdate();
        System.out.println("Client and association with team added successfully.");
    } catch (SQLException e) {
        e.printStackTrace();
    }
}
// 3
public static void enterNewVolunteerAndAssociateWithTeams() {
    Scanner scanner = new Scanner(System.in);

    System.out.print("Enter Volunteer SSN: ");
    String clientSsn = scanner.nextLine();
    //scanner.next();
    System.out.print("Enter volunteer Name: ");
    String clientName = scanner.nextLine();
    System.out.print("Enter Gender");
    String clintGender= scanner.nextLine();
    System.out.print("Enter volunteer profession");
    String clientProfession= scanner.nextLine();
    System.out.print("Enter mailing adress");
    String clientMail = scanner.nextLine();
    System.out.print("Enter email adress");
    String clientEmail = scanner.nextLine();
    System.out.print("Enter Phone Number");
    String clientPhone = scanner.nextLine();
    System.out.print("Is on mailing list yes=1/No=0 ?");
    String clientlsonmail = scanner.nextLine();
    System.out.print("Enter date of recent Training yyyy-mm-dd :");
    String clienttrainingdate =scanner.nextLine();
    System.out.print("Enter Joining date yyyy-mm-dd :");
    String clientjoindate = scanner.nextLine();
    System.out.print(" Enter Location");
    String clientlocation =scanner.nextLine();
    System.out.print("Entered the Team Name :");
    String clientteam =scanner.nextLine();
    System.out.print("Enter TEam Lead :");
    String clientTeamLeadssn = scanner.nextLine();
}

```

```

String sqlPerson="INSERT INTO Person
(SSID,Name,Gender,Profession,Mailing_address,Email_address,Phone_number,OnMailingList) VALUES
(?,?,?,?,?,?,?,?,?);"

String sqlVolunteer = "INSERT INTO Volunteer
(SSID,Name,Gender,Profession,Mailing_address,Email_address,Phone_number,OnMailingList,Date_of_recent_training,First_joined_date,Location) VALUES (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?);"

String sqlServes = "INSERT INTO serves (SSID,team_name,team_lead) VALUES (?, ?, ?);"

try (PreparedStatement pstmtPerson = conn.prepareStatement(sqlPerson);
      PreparedStatement pstmtVolunteer = conn.prepareStatement(sqlVolunteer);
      PreparedStatement pstmtAssoc = conn.prepareStatement(sqlServes)) {

    pstmtPerson.setString(1, clientSSN);
    pstmtPerson.setString(2, clientName);
    pstmtPerson.setString(3, clientGender);
    pstmtPerson.setString(4, clientProfession);
    pstmtPerson.setString(5, clientMail);
    pstmtPerson.setString(6, clientEmail);
    pstmtPerson.setString(7, clientPhone);
    pstmtPerson.setString(8, clientIsOnMail);
    pstmtPerson.executeUpdate();

    pstmtVolunteer.setString(1, clientSSN);
    pstmtVolunteer.setString(2, clientName);
    pstmtVolunteer.setString(3, clientGender);
    pstmtVolunteer.setString(4, clientProfession);
    pstmtVolunteer.setString(5, clientMail);
    pstmtVolunteer.setString(6, clientEmail);
    pstmtVolunteer.setString(7, clientPhone);
    pstmtVolunteer.setString(8, clientIsOnMail);
    pstmtVolunteer.setDate(9, Date.valueOf(clientTrainingDate));
    pstmtVolunteer.setDate(10, Date.valueOf(clientJoinDate));
    pstmtVolunteer.setString(11, clientLocation);
    pstmtVolunteer.executeUpdate();

    pstmtAssoc.setString(1, clientSSN);
    pstmtAssoc.setString(2, clientTeam);
    pstmtAssoc.setString(3, clientTeamLeadSSN);

    pstmtAssoc.executeUpdate();
    System.out.println("Volunteer and association with team added successfully.");
} catch (SQLException e) {
    e.printStackTrace();
}
// 4
}

public static void enterVolunteerHours() {
    Scanner scanner = new Scanner(System.in);
    System.out.print("Enter Volunteer SSN: ");
    String volunteerId = scanner.nextLine();
    System.out.print("Enter Team Name: ");
    String teamId = scanner.nextLine();
    System.out.print("Enter Hours: ");
}

```

```

String hours = scanner.nextLine();
String sql = "UPDATE serves SET number_of_hours= ? WHERE SSN =? AND team_name= ? ";
try (PreparedStatement pstmt = conn.prepareStatement(sql)) {
    pstmt.setString(2, volunteerId);
    pstmt.setString(3, teamId);
    pstmt.setString(1, hours);

    pstmt.executeUpdate();
    System.out.println("Volunteer hours updated successfully.");
} catch (SQLException e) {
    e.printStackTrace();
}
}

// 5
public static void enterNewEmployeeAndAssociateWithTeams() {
    Scanner scanner = new Scanner(System.in);

    System.out.print("Enter Client SSN: ");
    String clientSsn = scanner.nextLine();
    //scanner.next();
    System.out.print("Enter Client Name: ");
    String clientName = scanner.nextLine();
    System.out.print("Enter Gender");
    String clientGender= scanner.nextLine();

    System.out.print("Enter clients profession");
    String clientProfession= scanner.nextLine();
    System.out.print("Enter mailing adress");
    String clientMail = scanner.nextLine();
    System.out.print("Enter email adress");
    String clientEmail = scanner.nextLine();
    System.out.print("Enter Phone Number");
    String clientPhone = scanner.nextLine();
    System.out.print("Is on mailing list yes=1/No=0 ?");
    String clientIsOnMail = scanner.nextLine();
    System.out.print("Enter Salary: ");
    String salary = scanner.nextLine();
    System.out.print("Enter Marital Status : ");
    String maritalStatus = scanner.nextLine();
    System.out.print("Enter hire date");
    String hireDate = scanner.nextLine();

    System.out.print("Enter Team name to Associate: ");
    String teamId = scanner.nextLine();
    System.out.print("Enter description");
    String description = scanner.nextLine();
    String sqlPerson="INSERT INTO Person
(SSN,Name,Gender,Profession,Mailing_address,Email_address,Phone_number,OnMailingList) VALUES
(?,?,?,?,?,?,?,?,?)";
    String sqlEmployee = "INSERT INTO Employees
(SSN,Name,Gender,Profession,Mailing_address,Email_address,Phone_number,OnMailingList,Salary,Marital_status,
Hire_date) VALUES (?, ?, ?, ?, ?, ?, ?, ?, ?, ?)";
}

```

```

String sqlAssoc = "INSERT INTO Reports (team_name,SSN,Date,Description) VALUES (?, ?,?,?)";
try (PreparedStatement pstmtPerson = conn.prepareStatement(sqlPerson);
     PreparedStatement pstmt1 = conn.prepareStatement(sqlEmployee);
     PreparedStatement pstmt2 = conn.prepareStatement(sqlAssoc)) {

    pstmtPerson.setString(1, clientSsn);
    pstmtPerson.setString(2, clientName);
    pstmtPerson.setString(3, clintGender);
    pstmtPerson.setString(4, clientProfession);
    pstmtPerson.setString(5, clientMail);
    pstmtPerson.setString(6, clientEmail);
    pstmtPerson.setString(7, clientPhone);
    pstmtPerson.setString(8, clientlsonmail);
    pstmtPerson.executeUpdate();

    pstmt1.setString(1, clientSsn);
    pstmt1.setString(2, clientName);
    pstmt1.setString(3, clintGender);
    pstmt1.setString(4, clientProfession);
    pstmt1.setString(5, clientMail);
    pstmt1.setString(6, clientEmail);
    pstmt1.setString(7, clientPhone);
    pstmt1.setString(8, clientlsonmail);
    pstmt1.setString(9, salary);
    pstmt1.setString(10, maritalstatus);

    pstmt1.setDate( 11 , Date.valueOf(hiredate));

    pstmt1.executeUpdate();

    pstmt2.setString(1, teamId);
    pstmt2.setString(2, clientSsn);
    pstmt2.setDate(3, Date.valueOf(hiredate));
    pstmt2.setString(4, description);
    pstmt2.executeUpdate();
    System.out.println("Employee and association with team added successfully.");
} catch (SQLException e) {
    e.printStackTrace();
}
}

/// 6
public static void enterExpense() {
    Scanner scanner = new Scanner(System.in);
    System.out.print("Enter Employee SSN: ");
    String empld = scanner.nextLine();
    System.out.print("Enter date :");
    String date = scanner.nextLine();
    System.out.print("Enter Amount: ");
    String amount = scanner.nextLine();
    System.out.print("Enter description");
    String description = scanner.nextLine();
    String sql = "INSERT INTO Expenses (SSN,Date,Amount,Description) VALUES (?, ?,?,?)";
    try (PreparedStatement pstmt = conn.prepareStatement(sql)) {

```

```

        pstmt.setString(1, empld);
        pstmt.setDate(2,Date.valueOf(date));
        pstmt.setString(3, amount);
        pstmt.setString(4, description);
        pstmt.executeUpdate();
        System.out.println("Expense added successfully.");
    } catch (SQLException e) {
        e.printStackTrace();
    }
}

// 7
public static void newDonorWithDonations() {
    Scanner scanner = new Scanner(System.in);
    System.out.print("Enter Donor SSN: ");
    String DonorSsn = scanner.nextLine();
    System.out.print("Enter donor Name: ");
    String DonorName = scanner.nextLine();
    System.out.print("Enter Gender");
    String DonorGender= scanner.nextLine();
    System.out.print("Enter Donor profession");
    String DonorProfession= scanner.nextLine();
    System.out.print("Enter mailing adress");
    String DonorMail = scanner.nextLine();
    System.out.print("Enter email adress");
    String DonorEmail = scanner.nextLine();
    System.out.print("Enter Phone Number");
    String DonorPhone = scanner.nextLine();
    System.out.print("Is on mailing list yes=1/No=0 ?");
    String DonorOnMail = scanner.nextLine();
    System.out.println("is anonymous yes=1/no=0:");
    String DonorAnonymous=scanner.nextLine();

    System.out.println("Enter Date:");
    String date=scanner.nextLine();
    System.out.println("Enter amount:");
    String amount=scanner.nextLine();
    System.out.println("type of the donation:");
    String type=scanner.nextLine();
    System.out.println("Enter fund raiser name:");
    String name=scanner.nextLine();
    String sqlPerson="INSERT INTO Person
(SSN,Name,Gender,Profession,Mailing_address,Email_address,Phone_number,OnMailingList) VALUES
(?,?,?,?,?,?,?,?)";
    String sqlDonor = "INSERT INTO Donors (SSN,
Name,Gender,Profession,Mailing_address,Email_address,Phone_number,OnMailingList,isAnonymous) VALUES (?,?,
?,?,?,?,?,?)";
    String sqlAssoc = "INSERT INTO Donations (SSN,Date,Amount,Type_of_donation,Fund_raiser_name)
VALUES (?, ?, ?, ?, ?)";
    try (PreparedStatement pstmtPerson = conn.prepareStatement(sqlPerson);
         PreparedStatement pstmtDonor = conn.prepareStatement(sqlDonor);
         PreparedStatement pstmtAssoc = conn.prepareStatement(sqlAssoc)) {

```

```

stmtPerson.setString(1, DonorSsn);
stmtPerson.setString(2, DonorName);
stmtPerson.setString(3, DonorGender);
stmtPerson.setString(4, DonorProfession);
stmtPerson.setString(5, DonorMail);
stmtPerson.setString(6, DonorEmail);
stmtPerson.setString(7, DonorPhone);
stmtPerson.setString(8, DonorOnMail);
stmtPerson.executeUpdate();

stmtDonor.setString(1, DonorSsn);
stmtDonor.setString(2, DonorName);
stmtDonor.setString(3, DonorGender);
stmtDonor.setString(4, DonorProfession);
stmtDonor.setString(5, DonorMail);
stmtDonor.setString(6, DonorEmail);
stmtDonor.setString(7, DonorPhone);
stmtDonor.setString(8, DonorOnMail);
stmtDonor.setString(9, DonorAnonymous);

stmtDonor.executeUpdate();

stmtAssoc.setString(1, DonorSsn);
stmtAssoc.setString(2, date);
stmtAssoc.setString(3, amount);
stmtAssoc.setString(4, type);
stmtAssoc.setString(5, name);
stmtAssoc.executeUpdate();
System.out.println("Successfully entered new donor with several donations");
} catch (SQLException e) {
    e.printStackTrace();
}
}

// 8
public static void getDoctorInfoForClient() throws SQLException {
    Scanner scanner = new Scanner(System.in);
    System.out.print("Enter Client SSN: ");
    String clientSSN = scanner.nextLine();

    String query = "SELECT Doctor_name, Doctor_phone_number FROM Clients WHERE SSN = ?";
    try (PreparedStatement stmt = conn.prepareStatement(query)) {
        stmt.setString(1, clientSSN);
        ResultSet rs = stmt.executeQuery();
        if (rs.next()) {
            System.out.println("Doctor Name: " + rs.getString("Doctor_name"));
            System.out.println("Doctor Phone: " + rs.getString("Doctor_phone_number"));
        } else {
            System.out.println("Client not found.");
        }
    }
}

```

```

// 9
public static void getEmployeeExpensesByPeriod() throws SQLException {
    Scanner scanner=new Scanner(System.in);
    System.out.print("Enter start date (YYYY-MM-DD): ");
    Date startDate = Date.valueOf(scanner.nextLine());
    System.out.print("Enter end date (YYYY-MM-DD): ");
    Date endDate = Date.valueOf(scanner.nextLine());

    String query = "SELECT e.Name, SUM(Amount) AS Total_Expenses " +
        "FROM Employees e JOIN Expenses ex ON e.SSN = ex.SSN " +
        "WHERE ex.Date BETWEEN ? AND ? " +
        "GROUP BY e.Name " +
        "ORDER BY Total_Expenses DESC";
    try (PreparedStatement stmt = conn.prepareStatement(query)) {
        stmt.setDate(1, startDate);
        stmt.setDate(2, endDate);
        ResultSet rs = stmt.executeQuery();
        while (rs.next()) {
            System.out.println("Employee: " + rs.getString("Name") + ", Total Expenses: " +
                rs.getBigDecimal("Total_Expenses"));
        }
    }
}

// 10
public static void getVolunteersForClient() throws SQLException {
    Scanner scanner=new Scanner(System.in);
    System.out.print("Enter Client SSN: ");
    String clientSSN = scanner.nextLine();

    String query = "SELECT DISTINCT v.Name " +
        "FROM Volunteer v " +
        "JOIN serves s ON v.SSN = s.SSN " +
        "JOIN cares c ON s.team_name = c.team_name " +
        "WHERE c.SSN = ?";
    try (PreparedStatement stmt = conn.prepareStatement(query)) {
        stmt.setString(1, clientSSN);
        ResultSet rs = stmt.executeQuery();
        while (rs.next()) {
            System.out.println("Volunteer: " + rs.getString("Name"));
        }
    }
}

// 11
public static void getTeamsFoundedAfter() throws SQLException {
    Scanner scanner=new Scanner(System.in);
    System.out.print("Enter date (YYYY-MM-DD): ");
    Date date = Date.valueOf(scanner.nextLine());

    String query = "SELECT team_name FROM Team WHERE date_when_formed > ?";
    try (PreparedStatement stmt = conn.prepareStatement(query)) {
        stmt.setDate(1, date);
        ResultSet rs = stmt.executeQuery();
        while (rs.next()) {
            System.out.println("Team Name: " + rs.getString("team_name"));
        }
    }
}

```

```

        }
    }
}

// 12
public static void getAllPersonDetails() throws SQLException {
    String query = "SELECT p.Name, p.SSN, p.Email_address, p.Phone_number, " +
        "ec.Name_of_emergency_contact, ec.Phone_number_of_emergency_contact " +
        "FROM Person p LEFT JOIN Emergency_contact ec ON p.SSN = ec.SSN";
    try (PreparedStatement stmt = conn.prepareStatement(query)) {
        ResultSet rs = stmt.executeQuery();
        while (rs.next()) {
            System.out.println("Name: " + rs.getString("Name") + ", SSN: " + rs.getString("SSN"));
            System.out.println("Contact Email: " + rs.getString("Email_address") + ", Phone: " +
                rs.getString("Phone_number"));
            System.out.println("Emergency Contact: " + rs.getString("Name_of_emergency_contact") + +
                ", Phone: " + rs.getString("Phone_number_of_emergency_contact"));
        }
    }
}

// 13
public static void getEmployeeDonors() throws SQLException {
    String query = "SELECT d.Name, SUM(dn.Amount) AS Total_Donation, d.isAnonymous " +
        "FROM Donors d " +
        "JOIN Employees e ON d.SSN = e.SSN " +
        "JOIN Donations dn ON d.SSN = dn.SSN " +
        "GROUP BY d.Name, d.isAnonymous " +
        "ORDER BY Total_Donation DESC";
    try (PreparedStatement stmt = conn.prepareStatement(query)) {
        ResultSet rs = stmt.executeQuery();
        while (rs.next()) {
            String anonymityStatus = rs.getBoolean("isAnonymous") ? "(Anonymous)" : "";
            System.out.println("Donor: " + rs.getString("Name") + anonymityStatus + ", Total Donation: " +
                rs.getBigDecimal("Total_Donation"));
        }
    }
}

// 14
public static void increaseSalaryForMultipleTeamsReport() throws SQLException {
    String query = "UPDATE Employees SET Salary = Salary * 1.10 " +
        "WHERE SSN IN (SELECT SSN FROM reports GROUP BY SSN HAVING COUNT(DISTINCT
team_name) > 1)";
    try (PreparedStatement stmt = conn.prepareStatement(query)) {
        int rowsAffected = stmt.executeUpdate();
        System.out.println("Salary updated for " + rowsAffected + " employees.");
    }
}

//option 15
public static void deleteLowPriorityClients() throws SQLException {
    String query = "DELETE FROM Clients WHERE SSN NOT IN " +
        "(SELECT SSN FROM has_policy) " +
        "AND SSN IN (SELECT SSN FROM Need WHERE Need_name = 'transportation' AND
Importance_value < 5)";
}

```

```

        try (PreparedStatement stmt = conn.prepareStatement(query)) {
            int rowsDeleted = stmt.executeUpdate();
            System.out.println("Deleted " + rowsDeleted + " low-priority clients.");
        }
    }

// 16
public static void importTeamsFromFile() {
    System.out.print("Enter the input file name for importing teams: ");
    Scanner scanner=new Scanner(System.in);
    String fileName = scanner.nextLine();

    try (BufferedReader reader = new BufferedReader(new FileReader(fileName))) {
        String line;
        String query = "INSERT INTO Team (team_name, type, date_when_formed) VALUES (?, ?, ?)";
        try (PreparedStatement stmt = conn.prepareStatement(query)) {
            while ((line = reader.readLine()) != null) {
                String[] data = line.split(","); // Assumes file format: team_name,type,date_when_formed
                if (data.length == 3) {
                    stmt.setString(1, data[0].trim());
                    stmt.setString(2, data[1].trim());
                    stmt.setDate(3, Date.valueOf(data[2].trim())); // Date format: YYYY-MM-DD
                    stmt.executeUpdate();
                    System.out.println("Inserted team: " + data[0]);
                } else {
                    System.out.println("Invalid data format in line: " + line);
                }
            }
        }
    } catch (IOException e) {
        System.err.println("Error reading file: " + e.getMessage());
    } catch (SQLException e) {
        System.err.println("Database error: " + e.getMessage());
    }
}
}

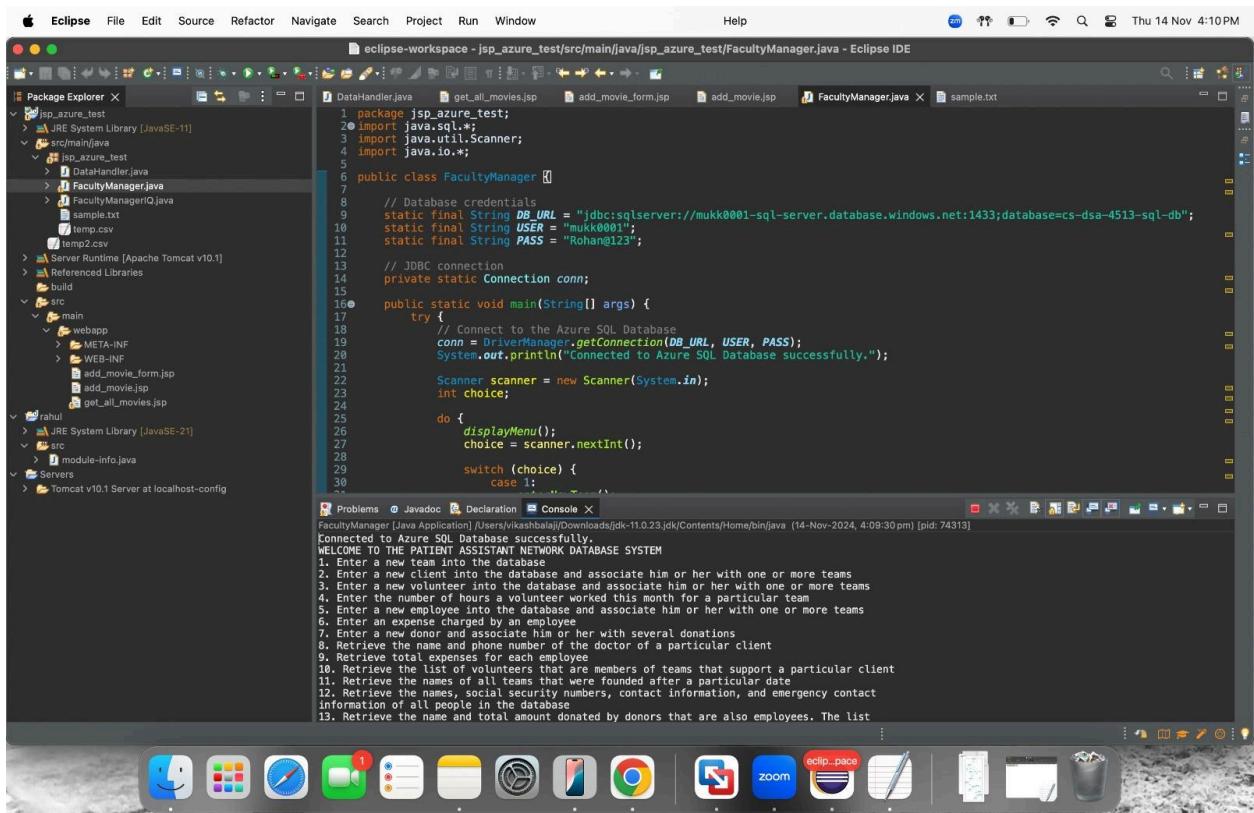
// 17
public static void viewVolunteerHoursForTeam() {
    Scanner scanner = new Scanner(System.in);
    System.out.print("Enter Team ID: ");
    int teamId = scanner.nextInt();

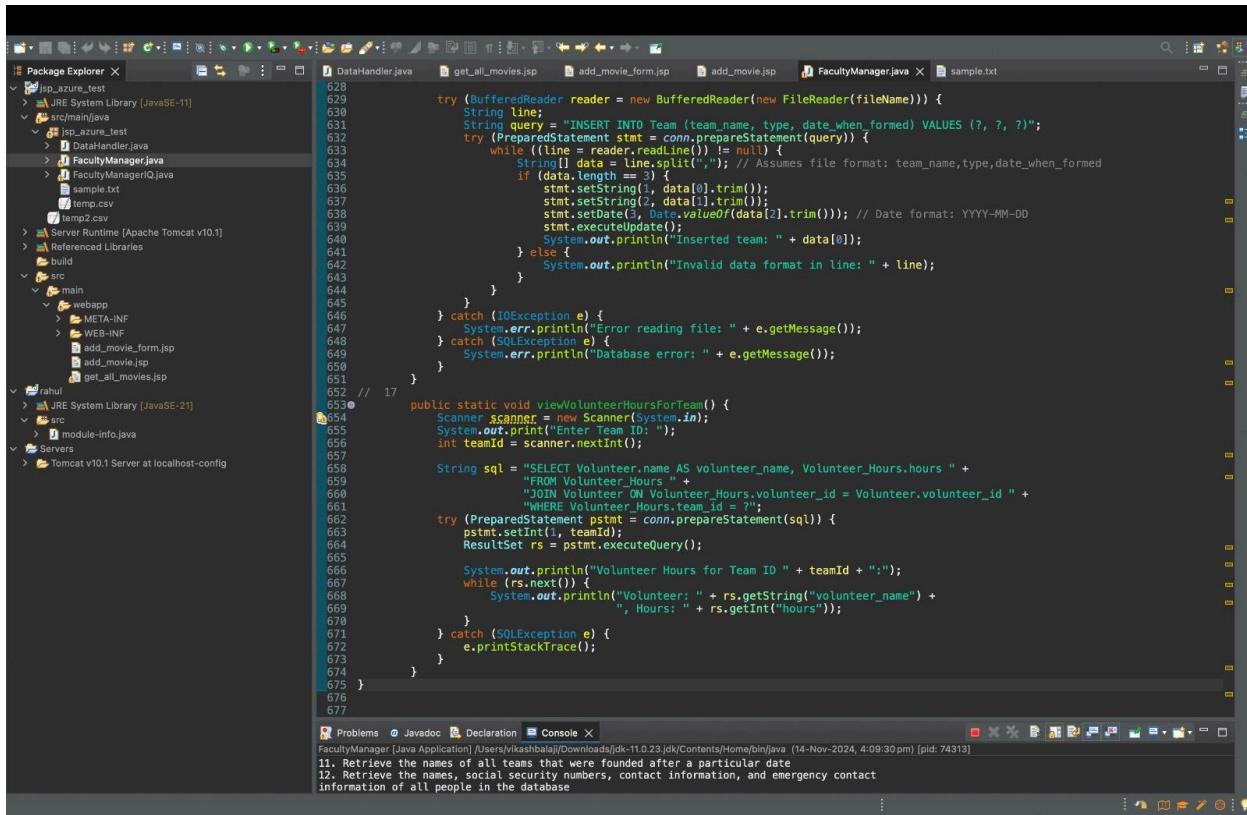
    String sql = "SELECT Volunteer.name AS volunteer_name, Volunteer_Hours.hours " +
        "FROM Volunteer_Hours " +
        "JOIN Volunteer ON Volunteer_Hours.volunteer_id = Volunteer.volunteer_id " +
        "WHERE Volunteer_Hours.team_id = ?;";
    try (PreparedStatement pstmt = conn.prepareStatement(sql)) {
        pstmt.setInt(1, teamId);
        ResultSet rs = pstmt.executeQuery();

        System.out.println("Volunteer Hours for Team ID " + teamId + ":");
        while (rs.next()) {
            System.out.println("Volunteer: " + rs.getString("volunteer_name") +
                ", Hours: " + rs.getInt("hours"));
        }
    }
}

```

```
        }  
    } catch (SQLException e) {  
        e.printStackTrace();  
    }  
}
```





```

628     try (BufferedReader reader = new BufferedReader(new FileReader(fileName))) {
629         String query = "INSERT INTO Team (team_name, type, date_when_formed) VALUES (?, ?, ?)";
630         try (PreparedStatement stmt = conn.prepareStatement(query)) {
631             while ((line = reader.readLine()) != null) {
632                 String[] data = line.split(",");
633                 if (data.length == 3) {
634                     stmt.setString(1, data[0].trim());
635                     stmt.setString(2, data[1].trim());
636                     stmt.setDate(3, Date.valueOf(data[2].trim())); // Date format: YYYY-MM-DD
637                     stmt.executeUpdate();
638                     System.out.println("Inserted team: " + data[0]);
639                 } else {
640                     System.out.println("Invalid data format in line: " + line);
641                 }
642             }
643         }
644     }
645     } catch (IOException e) {
646         System.err.println("Error reading file: " + e.getMessage());
647     } catch (SQLException e) {
648         System.err.println("Database error: " + e.getMessage());
649     }
650 }
651 }
652 // 17
653 public static void viewVolunteerHoursForTeam() {
654     Scanner scanner = new Scanner(System.in);
655     System.out.print("Enter Team ID: ");
656     int teamId = scanner.nextInt();
657
658     String sql = "SELECT Volunteer.name AS volunteer_name, Volunteer_Hours.hours " +
659                 "FROM Volunteer_Hours " +
660                 "JOIN Volunteer ON Volunteer_Hours.volunteer_id = Volunteer.volunteer_id " +
661                 "WHERE Volunteer_Hours.team_id = ?";
662     try (PreparedStatement pstmt = conn.prepareStatement(sql)) {
663         pstmt.setInt(1, teamId);
664         ResultSet rs = pstmt.executeQuery();
665
666         System.out.println("Volunteer Hours for Team ID " + teamId + ":");
667         while (rs.next()) {
668             System.out.println("Volunteer: " + rs.getString("volunteer_name") +
669                             ", Hours: " + rs.getInt("hours"));
670         }
671     } catch (SQLException e) {
672         e.printStackTrace();
673     }
674 }
675 }
676
677

```

Problems Javadoc Declaration Console

FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23/jdk/Contents/Home/bin/java (14-Nov-2024, 4:09:30 pm) [pid: 74313]

11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database

Eclipse File Edit Source Refactor Navigate Search Project Run Window Help Thu 14 Nov 4:09PM

eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE

Problems Javadoc Declaration Console X

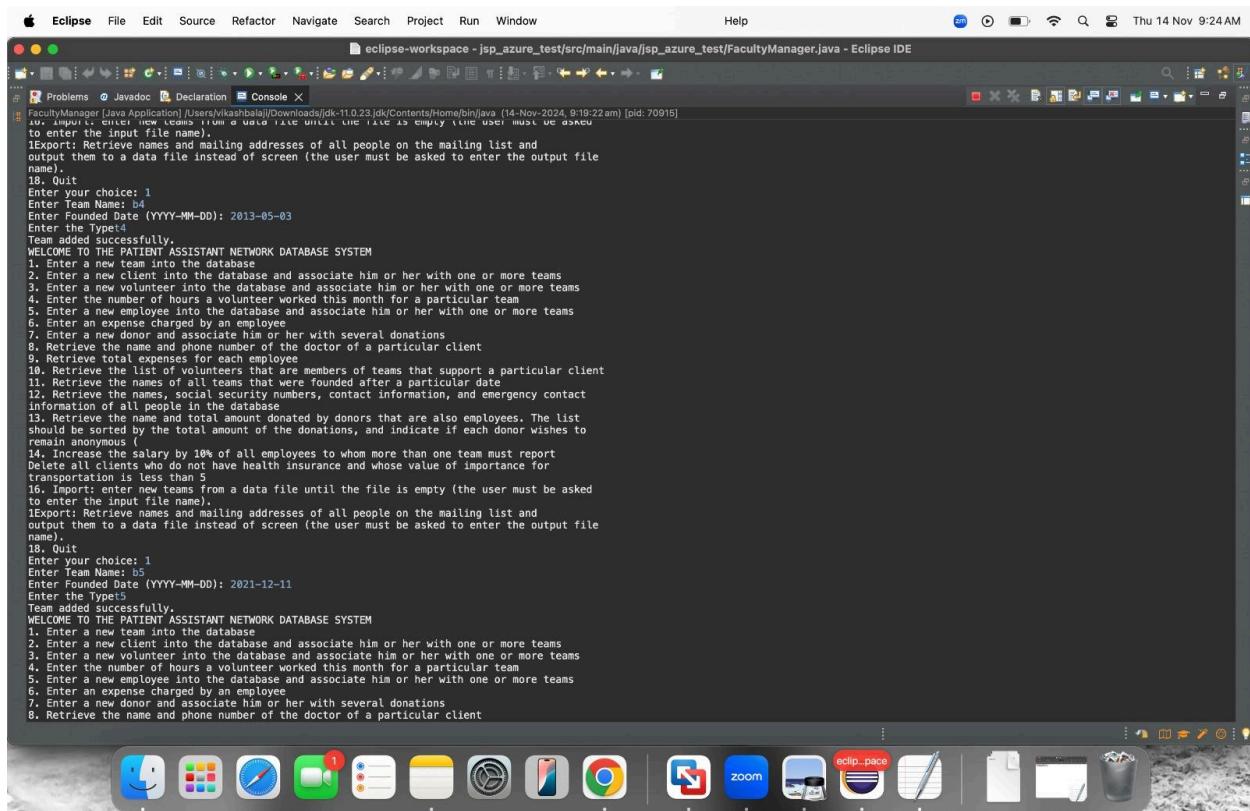
FacultyManager [Java Application] /Users/vikashbala/Desktop/eclipse-workspace/jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java (14-Nov-2024, 4:09:30 pm) [pid: 74319]

```
Connected to Azure SQL Database successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new client into the database and associate him or her with one or more teams
2. Enter a new volunteer into the database and associate him or her with one or more teams
3. Enter the number of hours a volunteer worked this month for a particular team
4. Enter a new employee into the database and associate him or her with one or more teams
5. Enter an expense charged by an employee
6. Enter several donations and associate them with one or more clients
7. Retrieve the name and phone number of the doctor of a particular client
8. Retrieve total expenses for each employee
9. Retrieve total expenses for each client
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous ('Y' or 'N')
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
15. Import data from a data file until the file is empty (the user must be asked to enter the input file name)
16. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
18. Quit
Enter your choice:
```

TASK 6

Java Program Execution

6.1. Screenshots showing the testing of query 1



The screenshot shows the Eclipse IDE interface with the title bar "eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE". The central area displays the following command-line output:

```
Problems Javadoc Declaration Console X
eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE
Thu 14 Nov 9:24 AM

1. Import: Enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
16. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
18. Quit
Enter your choice: 1
Enter Team Name: b4
Enter Founded Date (YYYY-MM-DD): 2013-05-03
Enter the Type:
Team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve names of all clients who were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
14. Delete all clients who are by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
18. Quit
Enter your choice: 1
Enter Team Name: b5
Enter Founded Date (YYYY-MM-DD): 2021-12-11
Enter the Type:
Team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
```

The bottom of the screen shows the Mac OS Dock with various application icons.

Thu 14 Nov 9:25 AM

Eclipse File Edit Source Refactor Navigate Search Project Run Window Help

eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE

Problems Javadoc Declaration Console X

```
FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java (14-Nov-2024, 9:19:22 am) [pid: 70915]
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
16. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name),
18. Quit
Enter your choice: 1
Enter Team Name: b6
Enter Founded Date (YYYY-MM-DD): 2013-01-12
Enter the Type:t6
[team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
16. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name),
18. Quit
Enter your choice:
```



Thu 14 Nov 9:24 AM

Eclipse File Edit Source Refactor Navigate Search Project Run Window Help

eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE

Problems Javadoc Declaration Console X

```
Connected to Azure SQL Database successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
16. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name),
18. Quit
Enter your choice: 1
Enter Team Name: b3
Enter Founded Date (YYYY-MM-DD): 2020-02-01
Enter the Type:t3
[team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
16. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name),
18. Quit
Enter your choice:
```



The screenshot shows a SQL query execution interface. At the top, there is a toolbar with various icons. Below the toolbar, the SQL query `select * from Team;` is entered in the SQL editor. To the right of the query, it says "(6 rows affected)". Below the query, the total execution time is listed as "Total execution time: 00:00:00.044". The results are displayed in a table with three columns: `team_name`, `type`, and `date_when_formed`. The data is as follows:

	team_name	type	date_when_formed
1	b1	t1	2024-12-28
2	b2	t2	2024-11-14
3	b3	t3	2020-02-01
4	b4	t4	2013-05-03
5	b5	t5	2021-12-11
6	b6	t6	2013-01-12

6.2. Screenshots showing the testing of query 1

```
Apple Finder File Edit View Go Window Help
eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE
Problems Javadoc Declaration Console X
FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 9:30:45 am) [pid: 70993]
to enter the input file name).
1Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 2
Enter Client SSN: 6473
Enter Client Name: akhil
Enter Gender:
Enter clients professionserver
Enter mailing addressconnecticut
Enter email address@gmail.com
Enter Phone Number8905648722
Is on mailing list yes=1/No=0 ? 1
Enter Doctor Nameakhil
Enter Doctor Phone Number9082216482
Enter Date When First Assigned (YYYY-MM-DD):2003-01-12
Enter team name to associateh3
Enter statusactive
Client and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (')
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
15. Enter new data from a data file until the file is empty (the user must be asked
to enter the input file name).
16Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 2
Enter Client SSN: 8923
Enter Client Name: derek
Enter Gender:
Enter clients professiontrainer
```

```
Apple Finder File Edit View Go Window Help
eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE
Problems Javadoc Declaration Console X
FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 9:30:45 am) [pid: 70993]
Enter Phone Number4905902165
Is on mailing list yes=1/No=0 ? 1
Enter Doctor Namejohn
Enter Doctor Phone Number4908292188
Enter Date When First Assigned (YYYY-MM-DD):2020-11-09
Enter team name to associateh6
Enter statusactive
Client and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (')
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
15. Enter new data from a data file until the file is empty (the user must be asked
to enter the input file name).
16Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 2
Enter Client SSN: 7483
Enter Client Name: malra
Enter Gender:
Enter clients professionassistant
Enter mailing addressstulsa
Enter email address@gmail.com
Enter Phone Number69215668
Is on mailing list yes=1/No=0 ? 1
Enter Doctor Namelandry
Enter Doctor Phone Number7898125544
Enter Date When First Assigned (YYYY-MM-DD):2008-01-12
Enter team name to associateh5
Enter statusactive
Client and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
```

```
Apple Finder File Edit View Go Window Help
Thu 14 Nov 9:58AM
eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE
Problems Javadoc Declaration Console
FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 9:30:45 am) [pid: 70993]
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the names of all teams that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
19. Quit
Enter your choice: 2
Enter Client SSN: 7291
Enter Client Name: bryan
Enter Gender:
Enter Clients professionmanager
Enter mailing addressnoman
Enter email addressbgmail.com
Enter Phone Number+9805902165
Is on mailing list yes1/No0 ? 1
Enter Doctor Namechristopher
Enter Doctor Phone Number+9808292188
Enter Date When First Assigned (YYYY-MM-DD):2020-11-09
Enter team name to associateh6
Enter statustative
Client and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
19. Quit
```

```
Apple Finder File Edit View Go Window Help
Thu 14 Nov 9:57 AM
eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE
Problems Javadoc Declaration Console
FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 9:30:45 am) [pid: 70993]
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
19. Quit
Enter your choice: 2
Enter Client SSN: 5621
Enter Client Name: junior
Enter Gender:
Enter Clients professionchef
Enter mailing addresshillrock
Enter email addressjunior@gmail.com
Enter Phone Number+9807862165
Is on mailing list yes1/No0 ? 1
Enter Doctor Namechristopher
Enter Doctor Phone Number+9805194360
Enter Date When First Assigned (YYYY-MM-DD):2013-01-04
Enter team name to associateh2
Enter statustative
Client and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
```

1 select * from Clients;

(10 rows affected)

Total execution time: 00:00:00.033

SSN	Name	Gender	Profession	Mailing address	Email address	Phone number	OnMailingList	Doctor name	DocID
1 123	rohan	m	labourer	testing-1 am	test@gmail.com	4059089080	1	vikas	989
2 1234	stark	m	fighter	riverbank	stark@gmail.com	4055091246	1	tharun	212
3 321	rahul	f	cleaner	123 kphb	kphb@gmail.com	4902314567	1	vikas	432
4 5621	junior	m	chef	hillrock	junior@gmail.com	4907862165	1	christopher	490
5 612	aliu erjun	m	actor	1212 houston	erjun@gmail.com	4051232789	1	srinivas	422
6 6475	akhil	m	server	connecticut	ak@gmail.com	8999999977	1	ramp	988
7 7291	bryan	m	manager	norman	b@gmail.com	4905902105	1	brown	490
8 7483	maine	f	assistant	lulue	m@gmail.com	6092185688	1	laundry	789
9 8921	robert	m	teacher	rohit@gmail.com	rop@gmail.com	3429081234	1	active	567
10 8923	derek	m	trainer	edmund	der@gmail.com	4936328489	1	jerry	493

1 select * from Team;

(6 rows affected)

Total execution time: 00:00:00.045

team_name	type	date_when_formed
1 b1	t1	2024-12-28
2 b2	t2	2024-11-14
3 b3	t3	2020-02-01
4 b4	t4	2013-05-03
5 b5	t5	2021-12-11
6 b6	t6	2013-01-12

6.3. Screenshots showing the testing of query 3

```

FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 10:12:44 am) [pid: 71226]
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of counters that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 3
Enter Volunteer SSN: 6463
Enter volunteer Name: ashwin
Enter Gender: Male
Enter volunteer profession: chess player
Enter mailing address:adressindia@gmail.com
Enter Phone Number:4399098623
Is on mailing list yes=1/No=0 ?1
Enter date of first Training yyyy-mm-dd :2010-11-03
Enter training date yyyy-mm-dd : 2010-02-04
Enter Location:India
Entered the Team Name :b2
Enter Team Lead : 764
Volunteer and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a client and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit

```



```

FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 10:12:44 am) [pid: 71226]
9. Retrieve total expenses for each employee
10. Retrieve the list of counters that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 3
Enter Volunteer SSN: 9123
Enter volunteer Name: dhoni
Enter Gender: Female
Enter volunteer profession: marine
Enter mailing address:jha
Enter email address:jha@gmail.com,
Enter Phone Number:78956290
Is on mailing list yes=1/No=0 ?1
Enter date of first Training yyyy-mm-dd :2010-01-01
Enter training date yyyy-mm-dd : 2005-01-12
Enter Location:Iceland
Entered the Team Name :b3
Enter Team Lead : 756
Volunteer and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a client and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice:

```

```

FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 10:12:44 am) [pid: 71225]
Import: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
17. Import
18. Quit
Enter your choice: 3
Enter Volunteer SSN: 7763
Enter volunteer Name: athirath
Enter Gender:
Enter volunteer profession:cricketer
Enter mailing address:spingfield
Enter email address:sath@gmail.com
Enter Phone Number:8906547639
Is on mailing list yes=1/No=0 ?
Enter date of recent Training yyyy-mm-dd :2013-07-01
Enter Joining date yyyy-mm-dd : 2018-01-01
Enter Location:kyc
Entered the Team Name :bl
Entered Team Lead : 321
Volunteer and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 3
Enter Volunteer SSN: 8734
Enter volunteer Name: kranthi
Enter Gender:
Enter volunteer profession:pilot
Enter mailing address:kranthi@gmail.com
Enter email address:kranthi@gmail.com
Enter Phone Number:98906574
Is on mailing list yes=1/No=0 ?
Enter date of recent Training yyyy-mm-dd :2021-07-04
Enter Joining date yyyy-mm-dd : 2028-01-11
Enter Location:kyc
Entered the Team Name :321
Entered Team Lead : 321

```

```

FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 10:12:44 am) [pid: 71225]
Connected to Azure SQL Database successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 3
Enter Volunteer SSN: 7763
Enter volunteer Name: athirath
Enter Gender:
Enter volunteer profession:cricketer
Enter mailing address:spingfield
Enter email address:sath@gmail.com
Enter Phone Number:8906547639
Is on mailing list yes=1/No=0 ?
Enter date of recent Training yyyy-mm-dd :2013-07-01
Enter Joining date yyyy-mm-dd : 2018-01-01
Enter Location:kyc
Entered the Team Name :bl
Entered Team Lead : 321
Volunteer and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous

```

```

1 select * from Volunteer;

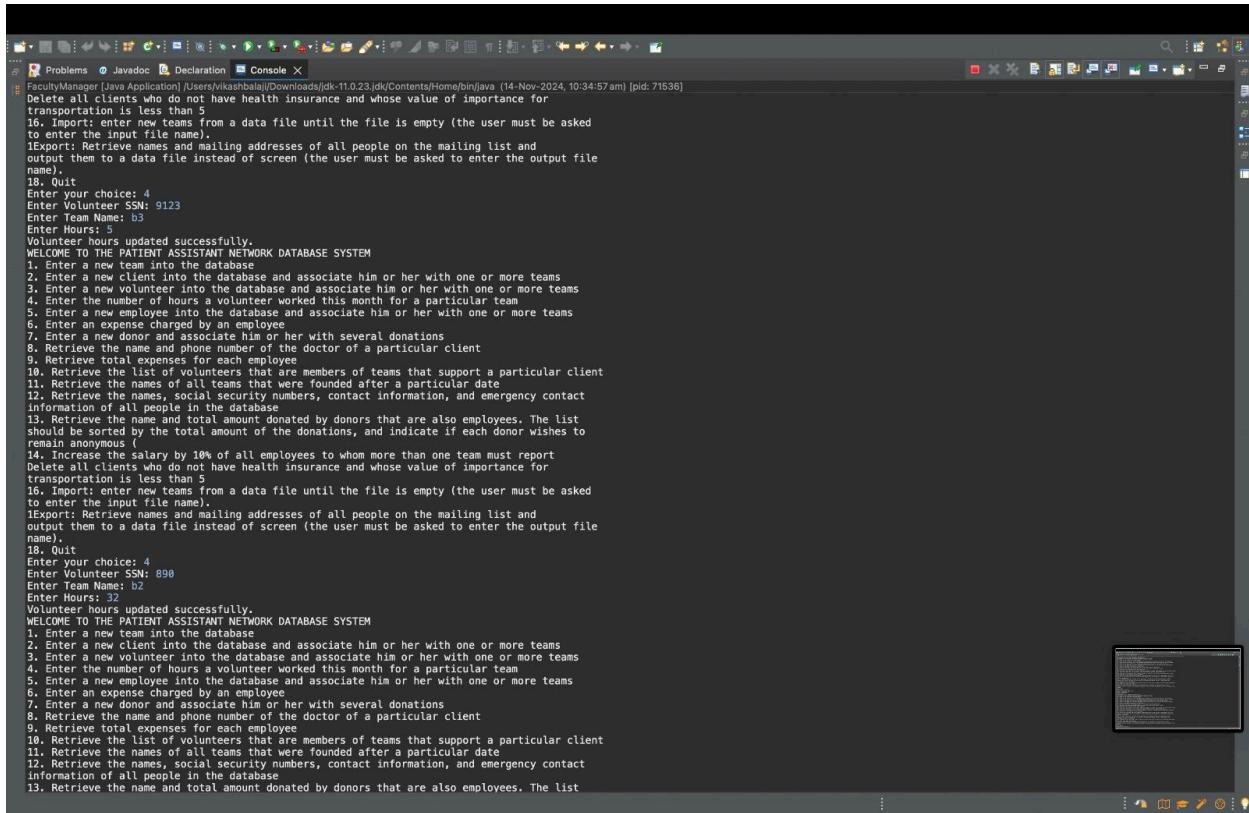
```

(12 rows affected)

Total execution time: 00:00:00.048

	SSN	Name	Gender	Profession	Mailing_address	Email_address	Phone_number	OnMailingList	Date_of_recent_training
1	111	bro	m	actor	brotest	bro@gall.com	9898989890	1	2023-12-12
2	123	john	m	driver	41 devon dr	abc@gmail.com	4233425699	1	2024-01-12
3	234	sudharshan	m	professor	devon circle	sud@gmail.com	4657238978	1	2024-01-01
4	453	sudharshan	m	professor	sud@gmail.com	sudhearn@gmail.com	475129089	1	2024-01-01
5	456	sudharshan	m	professor	devon circle	sud@gmail.com	3452139090	1	2020-04-09
6	458	john	m	professor	devon circle	qwe@gmail.com	7983241726	1	2024-04-12
7	545	sudharshan	m	professor	devon circle	sud@gmail.com	4563215463	1	2024-01-01
8	6463	ashwin	m	chess player	india	ash@gmail.com	4890986723	1	2020-11-03
9	7763	athirath	m	cricketer	springfield	ath@gmail.com	8906547639	1	2013-07-01
10	8734	kranthi	m	pilot	kranthi@gmail.com	kranthi@gmail.com	3748906574	1	2021-07-04
11	890	riley	m	art	rat cross	ril@gmail.com	7973937538	1	2019-12-21
12	9123	dhoni	m	marine	jha	thala@gmail.com,	788956290	1	2010-01-01

6.4. Screenshots showing the testing of query 4



```
Fedor/Manager Java Application [Users/rikashbalaji/Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java] (14-Nov-2024, 10:34:57 am) [pid: 71536]
Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
17Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
18. Exit
Enter your choice: 4
Enter Volunteer SSN: 9123
Enter Team Name: b3
Enter Hours: 5
Volunteer hours updated successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
16. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
17. Exit
Enter your choice: 4
Enter Volunteer SSN: 890
Enter Team Name: b2
Enter Hours: 32
Volunteer hours updated successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
```

```
Problems Javadoc Declaration Console
FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 10:34:57 am) [pid: 71536]
Enter your choice: 4
Enter Volunteer SSN: 890
Enter Team Name: 02
Enter Hours: 32
Volunteer hours updated successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous ('')
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 4
Enter Volunteer SSN: 111
Enter Team Name: 02
Volunteer hours updated successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous ('')
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
```

```
Problems Javadoc Declaration Console
FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 10:34:57 am) [pid: 71536]
Volunteer hours updated successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous ('')
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 4
Enter Volunteer SSN: 7763
Enter Team Name: 01
Enter Hours: 77
Volunteer hours updated successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous ('')
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice:
```

FacultyManager [Java Application] [/Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 10:34:57 am) [pid: 71536]

Connected to Azure SQL Database successfully.

WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM

- Enter a new team into the database
- Enter a new client into the database and associate him or her with one or more teams
- Enter a new volunteer into the database and associate him or her with one or more teams
- Enter the number of hours a volunteer worked this month for a particular team
- Enter a new employee into the database and associate him or her with one or more teams
- Enter an expense charged by an employee
- Enter a new donor and associate him or her with several donations
- Retrieve the name and phone number of the doctor of a particular client
- Retrieve the names of all clients that are employees
- Retrieve the list of volunteers that are members of teams that support a particular client
- Retrieve the names of all teams that were founded after a particular date
- Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
- Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
- Increase the salary by 10% of all employees to whom more than one team must report
- Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
- Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name)
- Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
- Quit

Enter your choice: 4

Enter Volunteer SSN: 6463

Enter Team Name: b2

Enter Hours: 7

Volunteer hours updated successfully.

WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM

- Enter a new team into the database
- Enter a new client into the database and associate him or her with one or more teams
- Enter a new volunteer into the database and associate him or her with one or more teams
- Enter the number of hours a volunteer worked this month for a particular team
- Enter a new employee into the database and associate him or her with one or more teams
- Enter an expense charged by an employee
- Enter a new donor and associate him or her with several donations
- Retrieve the name and phone number of the doctor of a particular client
- Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
- Retrieve the names of all teams that support a particular client
- Retrieve the names of all teams that were founded after a particular date
- Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
- Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
- Increase the salary by 10% of all employees to whom more than one team must report
- Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
- Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name)
- Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
- Quit

Enter your choice: 4

+ ↓ ↗ ⌂ ⌂ ...

1 select * from servers;

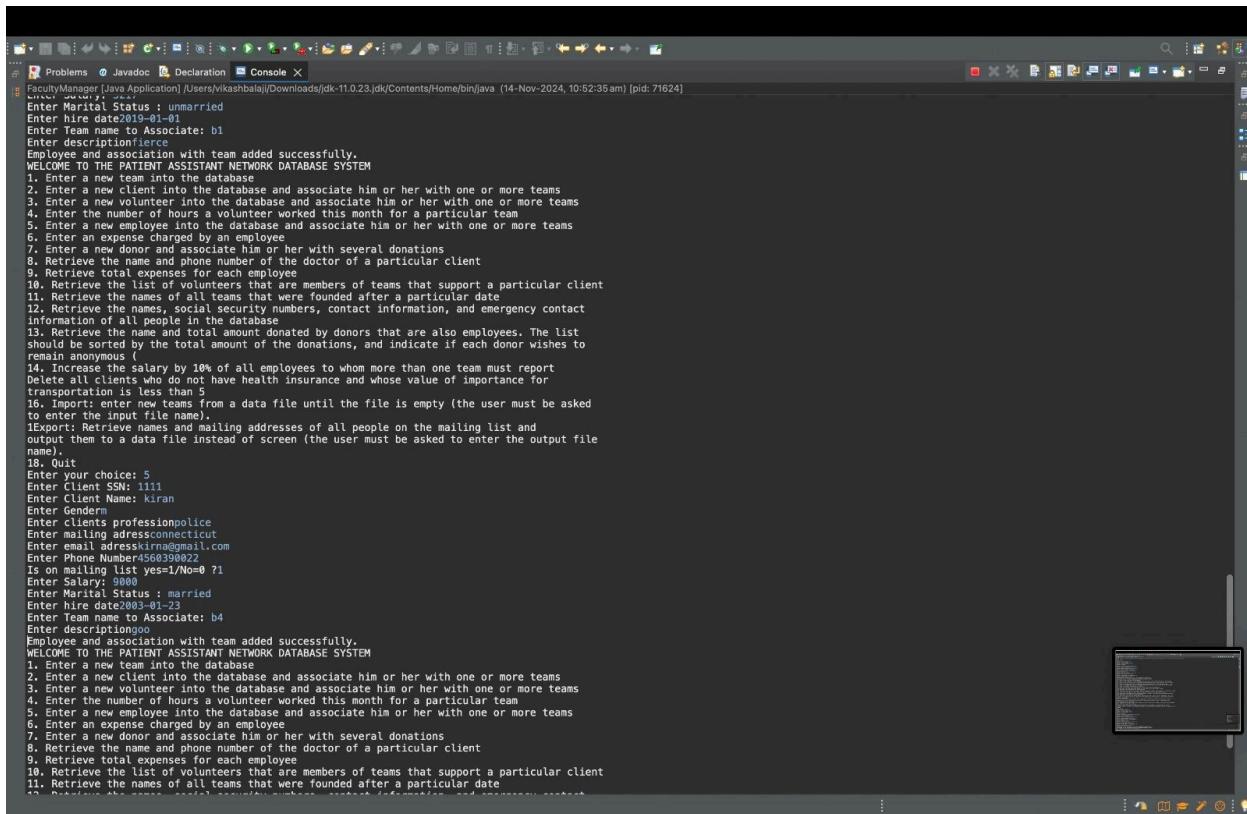
(7 rows affected)

SQL

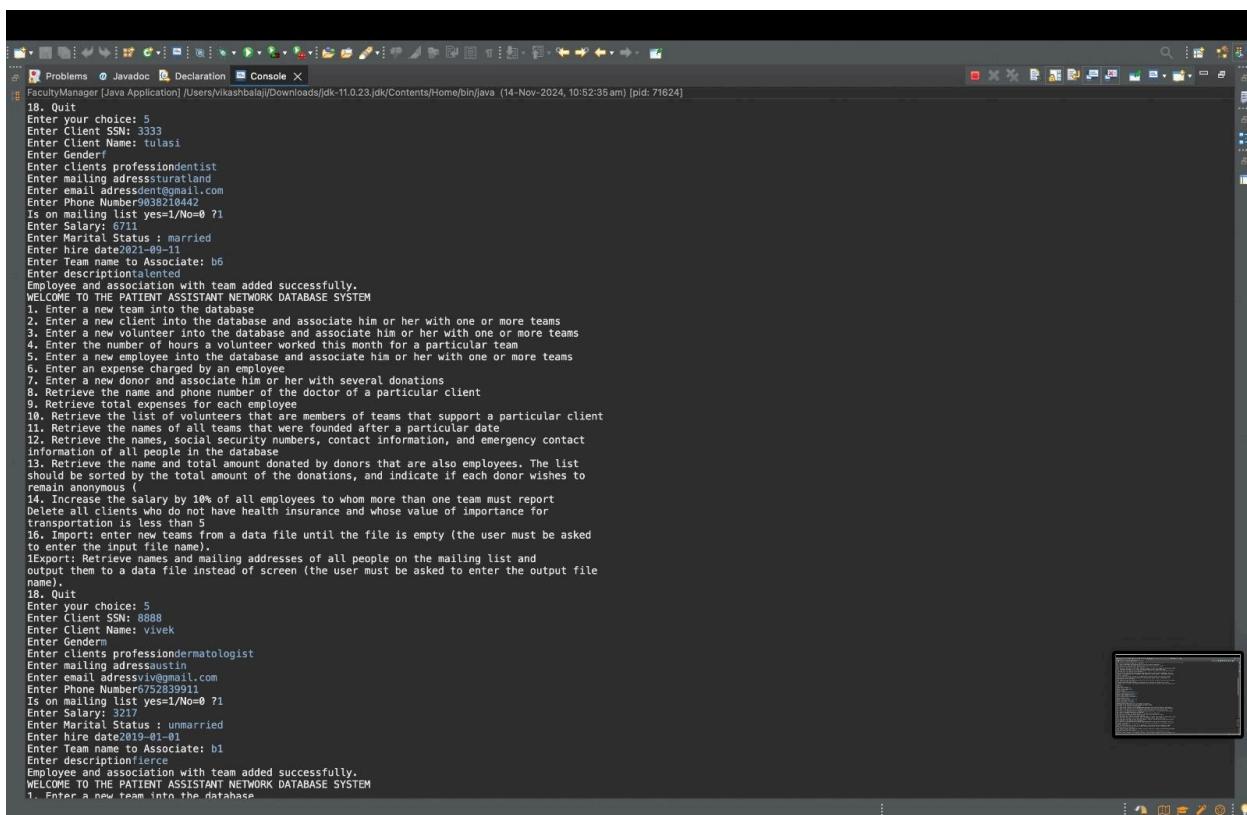
Total execution time: 00:00:00.053

	SSN	team_name	team_lead	number_of_hours	Active_status
1	111	b2	456	33	NULL
2	123	b2	NULL	6	NULL
3	456	b1	123	2	1
4	6463	b2	764	7	NULL
5	7763	b1	321	77	NULL
6	890	b2	123	32	NULL
7	9123	b3	756	5	NULL

6.5. Screenshots showing the testing of query 5



```
FacultyManager [Java Application] /Users/vikashbala/Desktop/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 10:52:35 am) [pid: 71624]
Enter Marital Status : unmarried
Enter hire date2019-01-01
Enter Team name to Associate: b1
Enter descriptionfire
Employee and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
their transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
16. Export: retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
17. Quit
Enter your choice: 5
Enter Client SSN: 1111
Enter Client Name: Kiran
Enter Gender
Enter clients professionpolice
Enter mailing addresskiran@gmail.com
Enter Email Addresskiran@gmail.com
Enter Phone Number4568390022
Is on mailing list yes=1/No=0 ?1
Enter Salary: 9000
Enter Marital Status : married
Enter hire date2019-01-23
Enter Team name to Associate: b4
Enter descriptionpolice
Employee and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
their transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
16. Export: retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
17. Quit
```



```
18. Quit
Enter your choice: 5
Enter Client SSN: 3333
Enter Client Name: tulasi
Enter Gender
Enter clients professiondentist
Enter mailing addresssturasturland
Enter Email Addresssturasturland@gmail.com
Enter Phone Number9838218442
Is on mailing list yes=1/No=0 ?1
Enter Salary: 6750
Enter Marital Status : married
Enter hire date2021-09-11
Enter Team name to Associate: b6
Enter descriptiondentist
Employee and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
their transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
16. Export: retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
17. Quit
Enter your choice: 5
Enter Client SSN: 8888
Enter Client Name: vivek
Enter Gender
Enter clients professiondermatologist
Enter mailing addressaustralia
Enter Email Addressvivek@gmail.com
Enter Phone Number6752839911
Is on mailing list yes=1/No=0 ?1
Enter Salary: 3217
Enter Marital Status : unmarried
Enter hire date2019-01-01
Enter Team name to Associate: b1
Enter descriptionfire
Employee and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
```

The screenshot shows a Java IDE interface with a central console window displaying the output of a Java application. The application is a command-line database system for managing patient assistance networks. The log includes:

- System startup message: "WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM".
- A list of 16 menu options numbered 1 through 16.
- User input for option 5: "Enter Client SSN: 9333" and "Enter Client Name: mukta".
- User input for option 6: "Enter Gender: m".
- User input for option 7: "Enter clients profession: doctor".
- User input for option 8: "Enter mailing address: dc@gmail.com".
- User input for option 9: "Enter email address: dc@ou.ac.in".
- User input for option 10: "Enter phone number: 983458392".
- User input for option 11: "Is on mailing list yes=1/no=0 ? 1".
- User input for option 12: "Enter Salary: 8900".
- User input for option 13: "Enter Marital Status: unmarried".
- User input for option 14: "Enter hire date: 2020-10-09".
- User input for option 15: "Enter Team name to Associate: b3".
- User input for option 16: "Enter description: efficient".
- Success message: "Employee associated with team added successfully."

The application then lists the 16 menu options again, including:

- Enter a new team into the database
- Enter a new client into the database and associate him or her with one or more teams
- Enter a new volunteer into the database and associate him or her with one or more teams
- Enter the number of hours a volunteer worked this month for a particular team
- Enter a new employee into the database and associate him or her with one or more teams
- Enter a expense charged by an employee
- Enter a new donor and associate him or her with several donations
- Retrieve the name and phone number of the doctor of a particular client
- Retrieve the list of volunteers that are members of teams that support a particular client
- Retrieve the names of all teams that were founded after a particular date
- Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
- Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
- Increase the salary by 10% of all employees to whom more than one team must report
- Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
- Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
- Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).

```

FacultyManager [Java Application] /Users/vikashbalaji/Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java [14-Nov-2024, 10:52:35 am] [pid: 71624]
Connected to Azure SQL Database successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Enter a new mailing list into the database
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
    information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
    should be sorted by the total amount of the donations, and indicate if each donor wishes to
    remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
17. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 5
Enter Client SSN: 7755
Enter Client Name: rohini
Enter Gender:
Enter clients professionastronaut
Enter mailing adresscleveland
Enter email addressroh@gmail.com
Enter Phone Number7863219087
Is OnMailingList yes=1/No=0 ?1
Enter Salary: 4300
Enter Marital Status : married
Enter hire date2019-04-02
Enter Team name to Associate: b2
Enter descriptionbest
Employee and association with team added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Enter a new mailing list into the database
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
    information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
    should be sorted by the total amount of the donations, and indicate if each donor wishes to
    remain anonymous (

```

SQL

	SSN	Name	Profession	Mailing_address	Email_address	Phone_number	OnMailingList	Salary	Marital_Status	Hire_date	
1	1111	kiran	m	police	connecticut	kirna@gmail.com	4560390022	1	9000.00	married	2003-01-23
2	3333	tulasi	f	dentist	sturatland	dent@gmail.com	9038210442	1	6711.00	married	2021-09-11
3	7755	rohini	f	astronaut	cleveland	roh@gmail.com	7863219087	1	4300.00	married	2019-04-02
4	8888	vivek	m	dermatologist	austin	viv@gmail.com	6752839911	1	3217.00	unmarried	2019-01-01
5	9333	mukka	m	doctor	doc@gmail.com	doc@ou.ac.in	8903458392	1	8900.00	unmarried	2020-10-09
6	934	bhaai	m	actor	hyd	bha@gmail.com	4562138976	1	2000.00		2023-01-21

6.6. Screenshots showing the testing of query 6

```
FacultyManager [Java Application] /Users/vikashbala/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 11:11:53 am) [pid: 7177]
1. Enter a new client into the database and associate him or her with one or more teams
2. Enter a new volunteer into the database and associate him or her with one or more teams
3. Enter the number of hours a volunteer worked this month for a particular team
4. Enter a new employee into the database and associate him or her with one or more teams
5. Enter an expense charged by an employee
6. Enter a new donor and associate him or her with several donations
7. Retrieve the name and phone number of the doctor of a particular client
8. Retrieve total expenses for each employee
9. Retrieve the list of volunteers that are members of teams that support a particular client
10. Retrieve the names of all teams that were founded after a particular date
11. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
12. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
13. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
18Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
18. Quit
Enter your choice:

6
Enter Employee SSN: 545
Enter date :2004-09-02
Enter Amount: 900
Enter descriptionas
Expense added successfully.

WELCOME TO THE FACULTY ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
18Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
18. Quit
Enter your choice:
```

The screenshot shows an IDE interface with a Java application running in the 'Console' tab. The application displays a menu of 16 options related to a database system. The user has selected option 6, which involves entering employee details. The application then displays a welcome message for the 'PATIENT ASSISTANT NETWORK DATABASE SYSTEM' and lists 16 menu options again.

```
FacultyManager [Java Application] [/Users/vikashbalaji/Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java] (14-Nov-2024, 11:11:53 am) [pid: 7177]
```

```
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
15. Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
1Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
10. Quit
Enter your choice: 6
Enter Employee SSN: 7763
Enter date :2019-01-03
Enter Amount: 500
Enter description:hippopotamus
Expense added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the list of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
15. Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
1Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
10. Quit
Enter your choice: 6
Enter Employee SSN: 9123
Enter date :2003-05-05
Enter Amount: 12345
Enter description:capital
Expense added successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
```

FacultyManager Java Application | /Users/vikashbalaji/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java [14-Nov-2024, 11:11:53 am] [pid: 71777]

Connected to Azure SQL Database successfully.

WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM

- Enter a new team into the database
- Enter a new client into the database and associate him or her with one or more teams
- Enter a new volunteer into the database and associate him or her with one or more teams
- Enter the number of hours a volunteer worked this month for a particular team
- Enter a new employee into the database and associate him or her with one or more teams
- Enter an expense charged by an employee
- Enter a new donor and associate him or her with several donations
- Retrieve the name and phone number of the doctor of a particular client
- Retrieve the names of all employees
- Retrieve the list of volunteers that are members of teams that support a particular client
- Retrieve the names of all teams that were founded after a particular date
- Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
- Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
- Increase the salary by 10% of all employees to whom more than one team must report
- Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
- Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name)
- Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
- Quit

Enter your choice: 6

Enter Employee SSN: 123

Enter Date: 2020-01-03

Enter Amount: 1234

Enter description: grocery

Description added successfully.

WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM

- Enter a new team into the database
- Enter a new client into the database and associate him or her with one or more teams
- Enter a new volunteer into the database and associate him or her with one or more teams
- Enter the number of hours a volunteer worked this month for a particular team
- Enter a new employee into the database and associate him or her with one or more teams
- Enter an expense charged by an employee
- Enter a new donor and associate him or her with several donations
- Retrieve the name and phone number of the doctor of a particular client
- Retrieve the names of all employees
- Retrieve the list of volunteers that are members of teams that support a particular client
- Retrieve the names of all teams that were founded after a particular date
- Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
- Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
- Increase the salary by 10% of all employees to whom more than one team must report
- Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
- Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name)
- Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name).
- Quit

1 select * from Expenses;

(5 rows affected)

Total execution time: 00:00:00.063

	SSN	Date	Amount	Description
1	123	2020-01-03	1234.00	grocery
2	545	2004-09-02	900.00	gas
3	7763	2019-01-03	500.00	shopping
4	9123	2003-05-05	123409.00	hospital
5	934	2024-11-14	220.00	ticket

6.7. Screenshots showing the testing of query 7

```

FacultyManager [Java Application] /Users/vikashbala/Desktop/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 11:57:31am) [pid: 72202]
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 7
Enter Donor SSN: 8008
Enter donor Name: chimmay
Enter Gender:
Enter Donor professionyoutuber
Enter mailing addressminneapolis
Enter email addressching@gmail.com
Enter Phone Number8788005454
Is on mailing list yes=1/No=0 ? 1
is anonymous yes=1/no=0:
1
Enter Date:
2020-08-12
Enter amount:
2345
type of the donation:
online
Enter fund raiser name:
Cancer
Successfully entered new donor with several donations
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter a number of hours a particular employee worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve names of all teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 7
Enter Donor SSN: 6066
Enter donor Name: sako
Enter Gender:
Enter Donor professionhindi translator
Enter mailing addresssank@gmail.com
Enter email addresssank@gmail.com
Enter Phone Number7898902121
Is on mailing list yes=1/No=0 ? 1
is anonymous yes=1/no=0:

```

```

FacultyManager [Java Application] /Users/vikashbala/Desktop/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 11:57:31am) [pid: 72202]
18Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 7
Enter Donor SSN: 5566
Enter donor Name: chattopadhyay
Enter Gender:
Enter Donor professionactor
Enter mailing addresskshanks
Enter email addresschattopadhyay@gmail.com
Enter Phone Number8906569900
Is on mailing list yes=1/No=0 ? 1
is anonymous yes=1/no=0:
1
Enter Date:
2023-05-09
Enter amount:
8500
type of the donation:
transfer
Enter fund raiser name:
deon
Successfully entered new donor with several donations
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter a number of hours a particular employee worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve names of all teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 7
Enter Donor SSN: 8008
Enter donor Name: chimmay
Enter Gender:
Enter Donor professionyoutuber
Enter mailing addressminneapolis
Enter email addressching@gmail.com
Enter Phone Number8788005454
Is on mailing list yes=1/No=0 ? 1

```

```

FacultyManager [Java Application] [/Users/vikashbalaji/Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java (14-Nov-2024, 11:57:31am) [pid: 72202]
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 7
Enter Donor SSN: 9898
Enter donor Name: amy
Enter Gender: Female
Enter Donor profession:associate
Enter mailing address:dallas
Enter email address:amy@gmail.com
Enter Phone Number:9891236677
Is on mailing list yes=1/No=0 ? 1
is anonymous yes=1/no=0: 1
Enter Date:
2000-01-02
Enter amount:
900
type of the donation:
cash
Enter fund raiser name:
luccamp
Successfully entered new donor with several donations
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database

```

```

FacultyManager [Java Application] [/Users/vikashbalaji/Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java (14-Nov-2024, 11:57:31am) [pid: 72202]
Connected to Azure SQL Database successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 7
Enter Donor SSN: 2222
Enter donor Name: alex
Enter Gender: Male
Enter Donor profession:technician
Enter mailing address:usla
Enter email address:alex@gmail.com
Enter Phone Number:7777770009
Is on mailing list yes=1/No=0 ? 1
is anonymous yes=1/no=0: 1
Enter Date:
2000-09-12
Enter amount:
3300
type of the donation:
online
Enter fund raiser name:
clip...pace
Successfully entered new donor with several donations
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams

```

The screenshot shows a Java application running in the background, displaying a menu of 18 options related to patient assistance and donations. In the foreground, an SQL query window is open, showing the results of a query on the 'Donations' table.

Java Application Output:

```

Problems Javadoc Declaration Console X
[User's workspace] /Users/vikashbalaji/Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java [14-Nov-2024, 11:57:31 am] [pid: 72202]
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous.
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 7
Enter Donor SSN: 6006
Enter donor Name: sako
Enter Gender: female
Enter profession:hindi translator
Enter mailing addresssank@gmail.com
Enter email addresssank@gmail.com
Enter Phone Number:79990902121
Is on mailing list yes=1/No=0 ? 1
is anonymous yes=1/no=0: 1
1
Enter Date:
2008-01-03
Enter amount:
8907
type of the donation:
check
Enter fund raiser name:
blueskin
Successfully entered new donor with several donations
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve the total amount for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
18. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice:

```

SQL Query Result:

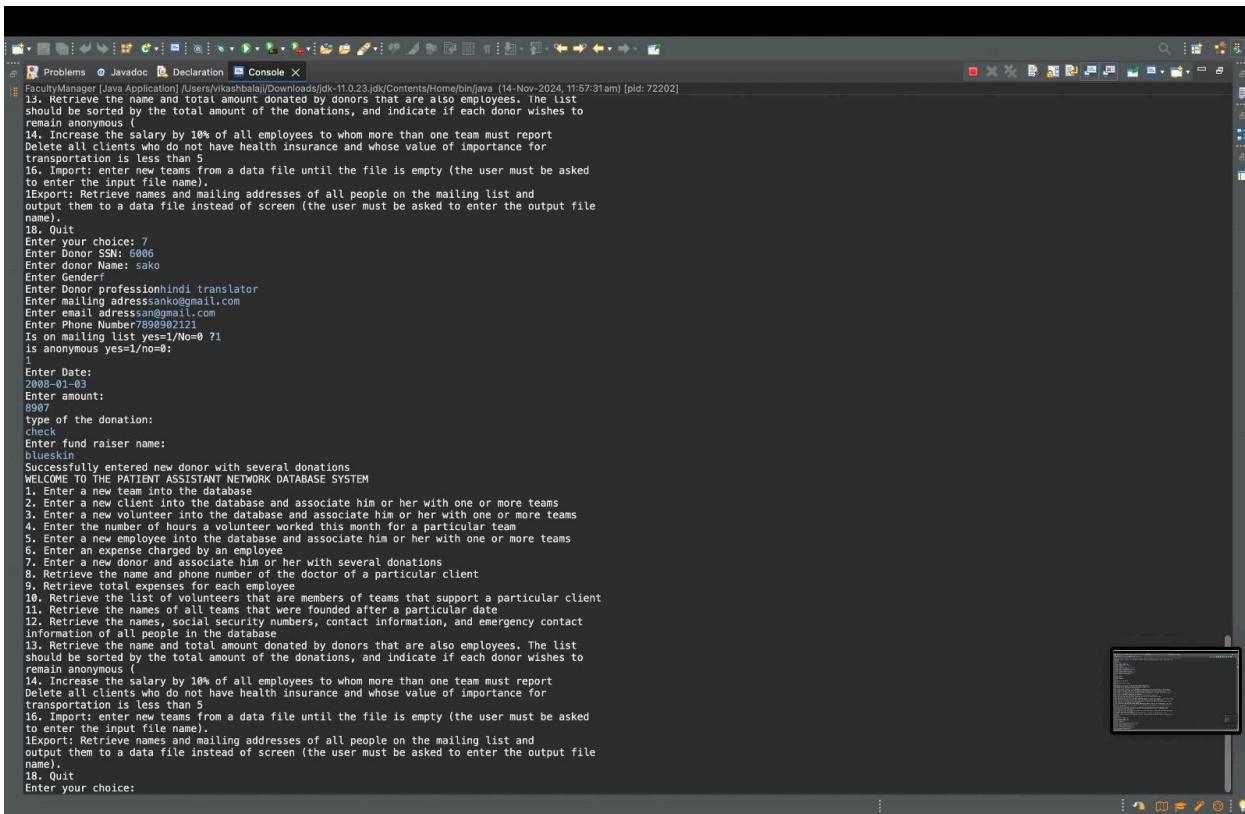
```

1 select * from Donations;
(6 rows affected)
SQL
Total execution time: 00:00:00.051

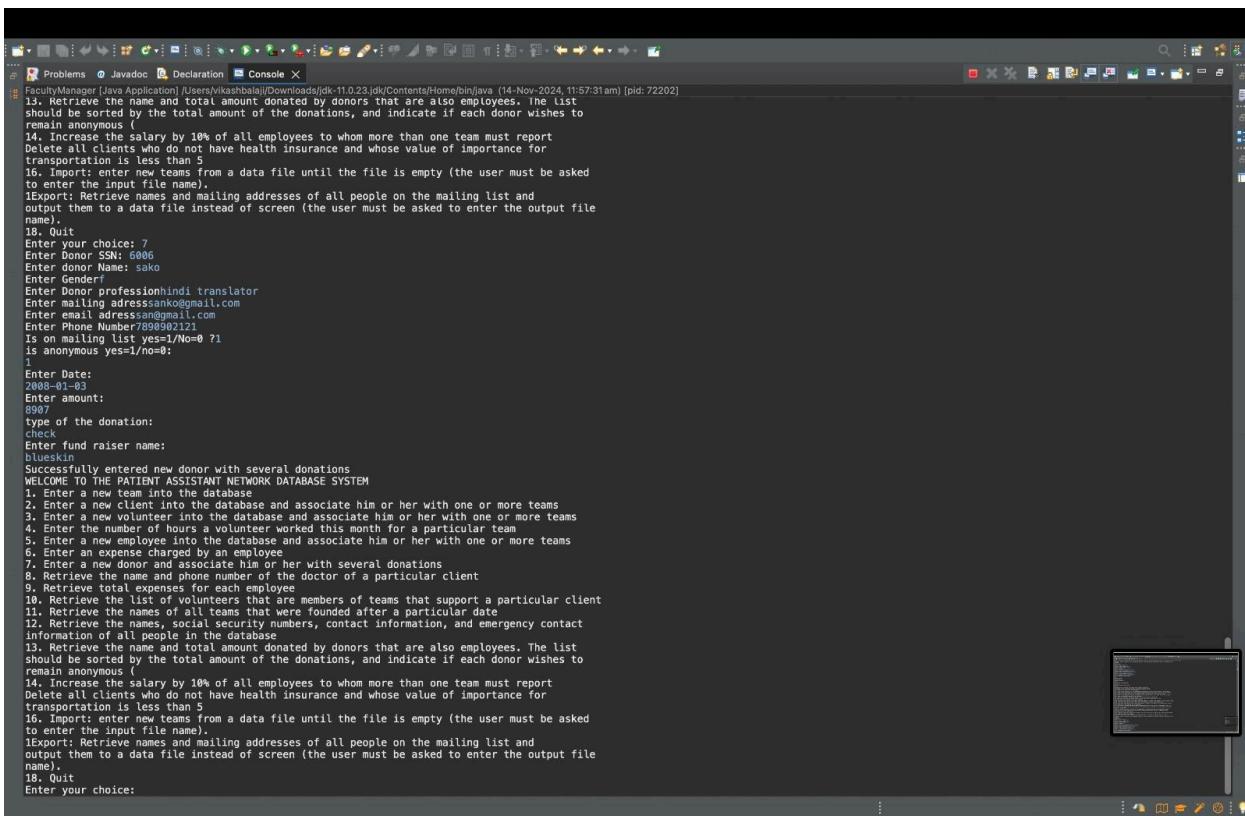
```

	SSN	Date	Amount	Type_of_donation	Fund_raiser_name
1	2222	2003-09-12	3300.00	online	cvr
2	5566	2023-05-09	8500.00	transfer	devon
3	6006	2008-01-03	8907.00	check	blueskin
4	792	2020-01-01	2300.00	online	ou
5	8008	2020-08-12	2345.00	online	camp
6	9898	2000-01-02	900.00	cash	bluecamp

6.7. Screenshots showing the testing of query 7



```
FacultyManager [Java Application] /Users/vikashbala/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 11:57:31am) [pid: 72202]
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
16. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 7
Enter donor ASN: 0006
Enter donor Name: sakko
Enter Gender:
Enter Donor profession:hindi translator
Enter mailing addresssank@gmail.com
Enter email addresssank@gmail.com
Enter Phone Number:799902121
Is on mailing list yes=1/No=0 ?1
Is anonymous yes=1/no=0:1
1
Enter Date:
2008-01-03
Enter amount:
8990
type of the donation:
check
Enter fund raiser name:
blueskin
Successfully entered new donor with several donations
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor into the database and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
16. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice:
```



```
FacultyManager [Java Application] /Users/vikashbala/Downloads/jdk-11.0.23.dk/Contents/Home/bin/java (14-Nov-2024, 11:57:31am) [pid: 72202]
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
16. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 7
Enter donor ASN: 0006
Enter donor Name: sakko
Enter Gender:
Enter Donor profession:hindi translator
Enter mailing addresssank@gmail.com
Enter email addresssank@gmail.com
Enter Phone Number:799902121
Is on mailing list yes=1/No=0 ?1
Is anonymous yes=1/no=0:1
1
Enter Date:
2008-01-03
Enter amount:
8990
type of the donation:
check
Enter fund raiser name:
blueskin
Successfully entered new donor with several donations
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor into the database and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name)
16. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice:
```

6.9. Screenshots showing the testing of query 9

```
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
1Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 9
Enter start date (YYYY-MM-DD): 2005-01-01
Enter end date (YYYY-MM-DD): 2025-01-01
Employee: bhaai, Total Expenses: 220.00
```

```
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
1Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 9
Enter start date (YYYY-MM-DD): 1999-01-01
Enter end date (YYYY-MM-DD): 2025-01-01
Employee: bhaai, Total Expenses: 220.00
```

6.10. Screenshots showing the testing of query 10

```
Connected to Azure SQL Database successfully.  
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM  
1. Enter a new team into the database  
2. Enter a new client into the database and associate him or her with one or more teams  
3. Enter a new volunteer into the database and associate him or her with one or more teams  
4. Enter the number of hours a volunteer worked this month for a particular team  
5. Enter a new employee into the database and associate him or her with one or more teams  
6. Enter an expense charged by an employee  
7. Enter a new donor and associate him or her with several donations  
8. Retrieve the name and phone number of the doctor of a particular client  
9. Retrieve total expenses for each employee  
10. Retrieve the list of volunteers that are members of teams that support a particular client  
11. Retrieve the names of all teams that were founded after a particular date  
12. Retrieve the names, social security numbers, contact information, and emergency contact  
information of all people in the database  
13. Retrieve the name and total amount donated by donors that are also employees. The list  
should be sorted by the total amount of the donations, and indicate if each donor wishes to  
remain anonymous  
14. Increase the salary by 10% of all employees to whom more than one team must report  
Delete all clients who do not have health insurance and whose value of importance for  
transportation is less than 5  
16. Import: enter new teams from a data file until the file is empty (the user must be asked  
to enter the input file name).  
1Export: Retrieve names and mailing addresses of all people on the mailing list and  
output them to a data file instead of screen (the user must be asked to enter the output file  
name).  
18. Quit  
Enter your choice: 10  
Enter Client SSN: 5621  
Volunteer: ashwin  
Volunteer: bro  
Volunteer: john  
Volunteer: riley
```

```
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM  
1. Enter a new team into the database  
2. Enter a new client into the database and associate him or her with one or more teams  
3. Enter a new volunteer into the database and associate him or her with one or more teams  
4. Enter the number of hours a volunteer worked this month for a particular team  
5. Enter a new employee into the database and associate him or her with one or more teams  
6. Enter an expense charged by an employee  
7. Enter a new donor and associate him or her with several donations  
8. Retrieve the name and phone number of the doctor of a particular client  
9. Retrieve total expenses for each employee  
10. Retrieve the list of volunteers that are members of teams that support a particular client  
11. Retrieve the names of all teams that were founded after a particular date  
12. Retrieve the names, social security numbers, contact information, and emergency contact  
information of all people in the database  
13. Retrieve the name and total amount donated by donors that are also employees. The list  
should be sorted by the total amount of the donations, and indicate if each donor wishes to  
remain anonymous  
14. Increase the salary by 10% of all employees to whom more than one team must report  
Delete all clients who do not have health insurance and whose value of importance for  
transportation is less than 5  
16. Import: enter new teams from a data file until the file is empty (the user must be asked  
to enter the input file name).  
1Export: Retrieve names and mailing addresses of all people on the mailing list and  
output them to a data file instead of screen (the user must be asked to enter the output file  
name).  
18. Quit  
Enter your choice: 10  
Enter Client SSN: 321  
Volunteer: athirath  
Volunteer: sudharshan  
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
```

6.11. Screenshots showing the testing of query 11

```
Team Name: b5
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
1Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 11
Enter date (YYYY-MM-DD): 2020-01-01
Team Name: B1
Team Name: b2
Team Name: b3
Team Name: b5
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
```

```
Connected to Azure SQL Database successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
1Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 11
Enter date (YYYY-MM-DD): 2000-12-12
Team Name: B1
Team Name: b2
Team Name: b3
Team Name: b4
Team Name: b5
Team Name: b6
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
```

6.12. Screenshots showing the testing of query 12

```
eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE
Connected to the Azure Database successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter a new donor into the database and associate him or her with several donations
7. Enter the name and phone number of the doctor of a particular client
8. Retrieve total expenses for each employee
9. Retrieve the list of volunteers that are members of teams that support a particular client
10. Retrieve the names of all teams that were founded after a particular date
11. Retrieve names, addresses, contact information, and emergency contact
information of all people in the database
12. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
13. Increase the salary by 10% of all employees to whom more than one team must report
14. Increase the salary by 10% of all employees who do not have health insurance and whose value of importance for
transportation is less than 5
15. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
16. Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name),
17. Exit
Enter your choice: 12
Name: bro, SSN: 111
Contact Email: bro@gmail.com, Phone: 9898989890
Emergency Contact: null, Phone: null
Name: kiran, SSN: 1111
Contact Email: kiran@gmail.com, Phone: 4566390022
Emergency Contact: null, Phone: null
Name: rohan, SSN: 123
Contact Email: abc@gmail.com, Phone: 4055125699
Emergency Contact: null, Phone: null
Name: stark, SSN: 1234
Contact Email: stark@gmail.com, Phone: 4056891246
Emergency Contact: null, Phone: null
Name: alex, SSN: 2222
Contact Email: alex@gmail.com, Phone: 7896540099
Emergency Contact: null, Phone: null
Name: sudharshan, SSN: 234
Contact Email: sud@gmail.com, Phone: 4657238978
Emergency Contact: null, Phone: null
Name: rahul, SSN: 321
Contact Email: kphbg@gmail.com, Phone: 4902314567
Emergency Contact: null, Phone: null
Name: tulasi, SSN: 3333
Contact Email: dent@gmail.com, Phone: 0018210442
```

Eclipse File Edit Source Refactor Navigate Search Project Run Window Help

eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE

Problems Javadoc Declaration Console

```
FacultyManager [Java Application] /Users/vikashbala/[Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java (14-Nov-2024, 12:47:41pm) [pid: 72607]
Emergency Contact: null, Phone: null
Name: krantika, SSN: 8734
Contact Email: krantika@gmail.com, Phone: 3748906574
Emergency Contact: null, Phone: null
Name: vivek, SSN: 8888
Contact Email: viv@gmail.com, Phone: 6752839911
Emergency Contact: null, Phone: null
Name: riley, SSN: 8901
Contact Email: riley@gmail.com, Phone: 7973937538
Emergency Contact: null, Phone: null
Name: robert, SSN: 8921
Contact Email: rob@gmail.com, Phone: 3429081234
Emergency Contact: null, Phone: null
Name: deependra, SSN: 9023
Contact Email: deependra@gmail.com, Phone: 4930328489
Emergency Contact: null, Phone: null
Name: dhoni, SSN: 9123
Contact Email: thala@gmail.com, Phone: 788956290
Emergency Contact: null, Phone: null
Name: mukta, SSN: 9333
Contact Email: mukta@gmail.ac.in, Phone: 8903458392
Emergency Contact: null, Phone: null
Name: bhaal, SSN: 934
Contact Email: bhaal@gmail.com, Phone: 4562138976
Emergency Contact: null, Phone: null
Name: amy, SSN: 9986
Contact Email: amy@gmail.com, Phone: 9091236677
Emergency Contact: null, Phone: null
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the name of each volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve names of teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
15. Find all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name).
17.Export: Retrieve names and mailing addresses of all people on the mailing list and
```

Help

Thu 14 Nov 12:48PM



The screenshot shows a Mac OS X desktop environment. In the foreground, there is a window titled "eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE". The window contains Java code for a "FacultyManager" class. Below the code, a list of 17 numbered tasks is displayed, ranging from basic data entry to complex reporting and import/export operations. The Eclipse interface includes tabs for Problems, Javadoc, Declaration, and Console. The status bar at the bottom right shows the date and time as "Thu 14 Nov 12:48PM". The desktop background features a dark, abstract pattern. A dock at the bottom contains icons for various applications like Finder, Mail, Safari, and Zoom.

Eclipse File Edit Source Refactor Navigate Search Project Run Window Help

eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE

Problems Javadoc Declaration Console

```
FacultyManager [Java Application] /Users/vikashbala/[Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java (14-Nov-2024, 12:47:41pm) [pid: 72607]
Emergency Contact: null, Phone: null
Name: sudharshan, SSN: 456
Contact Email: sudhars@gmail.com, Phone: 475129089
Emergency Contact: null, Phone: null
Name: sudharshan, SSN: 456
Contact Email: sud@gmail.com, Phone: 3452139890
Emergency Contact: null, Phone: null
Name: john, SSN: 456
Contact Email: john@gmail.com, Phone: 7983241726
Emergency Contact: null, Phone: null
Name: bryan, SSN: 473
Contact Email: b@gmail.com, Phone: 4729081342
Emergency Contact: null, Phone: null
Name: sudhars@gmail, SSN: 543
Contact Email: sudhars@gmail.com, Phone: 4563215463
Emergency Contact: null, Phone: null
Name: chattopadhyay, SSN: 5566
Contact Email: chat@gmail.com, Phone: 8906660900
Emergency Contact: null, Phone: null
Name: junior, SSN: 621
Contact Email: junior@gmail.com, Phone: 4967862165
Emergency Contact: null, Phone: null
Name: sako, SSN: 6066
Contact Email: san@gmail.com, Phone: 7890902121
Emergency Contact: null, Phone: null
Name: alu arjun, SSN: 612
Contact Email: arjun@gmail.com, Phone: 4051236785
Emergency Contact: null, Phone: null
Name: ashwin, SSN: 6463
Contact Email: ash@gmail.com, Phone: 4899986723
Emergency Contact: null, Phone: null
Name: akhil, SSN: 6473
Contact Email: ak@gmail.com, Phone: 8905648722
Emergency Contact: null, Phone: null
Name: bryan, SSN: 7291
Contact Email: bg@gmail.com, Phone: 4905902165
Emergency Contact: null, Phone: null
Name: maira, SSN: 7483
Contact Email: @gmail.com, Phone: 6092185688
Emergency Contact: null, Phone: null
Name: athirai, SSN: 7755
Contact Email: ro@gmail.com, Phone: 7863219087
Emergency Contact: null, Phone: null
Name: athirath, SSN: 7763
Contact Email: ath@gmail.com, Phone: 8906547639
Emergency Contact: null, Phone: null
Name: chinmay, SSN: 8008
Contact Email: chinmay@gmail.com, Phone: 8780005454
```

Help

Thu 14 Nov 12:48PM



This screenshot is identical to the one above, showing the same Eclipse IDE window with Java code and task list. The desktop environment, including the dock with application icons, is also the same. The status bar at the bottom right shows the date and time as "Thu 14 Nov 12:48PM".

6.13,14,15. Screenshots showing the testing of query 13,14,15

```

eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window
Help
Problems Javadoc Declaration Console X
FacultyManager Java Application /Users/vikashbalaji/Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java (14-Nov-2024, 12:48:57 pm) [pid: 72622]
15. Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name)
17. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name)
18. Quit
Enter your choice: 14
Salary updated for 0 employees.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
15. Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name)
17. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name)
18. Quit
Deleted 0 low-priority clients.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database

```

```

eclipse-workspace - jsp_azure_test/src/main/java/jsp_azure_test/FacultyManager.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window
Help
Problems Javadoc Declaration Console X
FacultyManager Java Application /Users/vikashbalaji/Downloads/jdk-11.0.23.jdk/Contents/Home/bin/java (14-Nov-2024, 12:48:57 pm) [pid: 72622]
Connected to Azure SQL Database successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
15. Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name)
17. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name)
18. Quit
Enter your choice: 13
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list should be sorted by the total amount of the donations, and indicate if each donor wishes to remain anonymous
14. Increase the salary by 10% of all employees to whom more than one team must report
15. Delete all clients who do not have health insurance and whose value of importance for transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked to enter the input file name)
17. Export: Retrieve names and mailing addresses of all people on the mailing list and output them to a data file instead of screen (the user must be asked to enter the output file name)
18. Quit

```

6.16. Screenshots showing the testing of query 16

```
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
    information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
    should be sorted by the total amount of the donations, and indicate if each donor wishes to
    remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
15. Delete all clients who do not have health insurance and whose value of importance for
    transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
    to enter the input file name).
1Export: Retrieve names and mailing addresses of all people on the mailing list and
    output them to a data file instead of screen (the user must be asked to enter the output file
    name).
18. Quit
Enter your choice: 16
Enter the input file name for importing teams: src/main/java/temp2.csv
Inserted team: B9
Inserted team: B10
```

Screenshot of a SQL client showing the results of a query:

```
1 select * from Team
```

(8 rows affected)

Total execution time: 00:00:00.317

	team_name	type	date_when_formed
1	B1	t1	2024-12-28
2	B10	t5	2015-05-13
3	b2	t2	2024-11-14
4	b3	t3	2020-02-01
5	b4	t4	2013-05-03
6	b5	t5	2021-12-11
7	b6	t6	2013-01-12
8	B9	t4	2020-09-08

Screenshot of Eclipse IDE showing Java code and a terminal window:

The Java code in FacultyManager.java includes a method for exporting mailing lists to a file:

```

    public static void exportMailingListToFile() {
        System.out.print("Enter the output file name for exporting mailing list: ");
        Scanner scanner = new Scanner(System.in);
        String fileName = scanner.nextLine();
        File file = new File(fileName);
        if (!file.exists()) {
            try {
                file.createNewFile();
            } catch (IOException e) {
                System.out.println("Error reading file: " + e.getMessage());
            }
        }
        try (PrintWriter writer = new PrintWriter(file)) {
            writer.println("Team Name, Type, Date Formed");
            for (Team team : teams) {
                writer.println(team.getTeamName() + ", " + team.getType() + ", " + team.getDateWhenFormed());
            }
        } catch (FileNotFoundException e) {
            System.out.println("File not found: " + e.getMessage());
        } catch (IOException e) {
            System.out.println("Error writing file: " + e.getMessage());
        }
    }
}

```

The terminal window shows the output of the code execution:

```

89,14,2024-09-08
B10,t5,2015-05-13

```

The Eclipse interface also shows the project structure and other files like DataHandler.java and add_movie.jsp.

6.17. Screenshots showing the testing of query 17

```

WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
2. Enter a new client into the database and associate him or her with one or more teams
3. Enter a new volunteer into the database and associate him or her with one or more teams
4. Enter the number of hours a volunteer worked this month for a particular team
5. Enter a new employee into the database and associate him or her with one or more teams
6. Enter an expense charged by an employee
7. Enter a new donor and associate him or her with several donations
8. Retrieve the name and phone number of the doctor of a particular client
9. Retrieve total expenses for each employee
10. Retrieve the list of volunteers that are members of teams that support a particular client
11. Retrieve the names of all teams that were founded after a particular date
12. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
13. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
remain anonymous (
14. Increase the salary by 10% of all employees to whom more than one team must report
15. Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
16. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
1Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name).
18. Quit
Enter your choice: 17
Enter the output file name for exporting mailing list: src/main/java/temp2.csv
Mailing list exported successfully to src/main/java/temp2.csv
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM

```

```

bro, brotest
kiran, connecticut
stark, riverbend
alex, tulsa
sudharshan, devon circle
rahul, 123 kohb
tulasi, sturatland
sudharshan, sank@gmail.com
sudharshan, bud@gmail.com
sudharshan, devon circle
john, devon circle
bryan, riverbends
sudharshan, devon circle
charles, mississippi
junior, hillrock
sako, sank@gmail.com
allu arjun, 1212 houston
ashwin, india
akhil, connecticut
bryan, norman
maira, tulsa
rohini, cleveland
athina, springfield
rob, rob
chimay, minneapolis
kranthi, kranti@gmail.com
vivek, mitch
rite, rat cross
robert, rob@gmail.com
derek, edmond
dhoni, jha
mukki, mukki@gmail.com
bhavani, hys
mnx, dallas

```

```
connected to Azure SQL Database successfully.
WELCOME TO THE PATIENT ASSISTANT NETWORK DATABASE SYSTEM
1. Enter a new team into the database
. Enter a new client into the database and associate him or her with one or more teams
. Enter a new volunteer into the database and associate him or her with one or more teams
. Enter the number of hours a volunteer worked this month for a particular team
. Enter a new employee into the database and associate him or her with one or more teams
. Enter an expense charged by an employee
. Enter a new donor, and associate him or her with several donations
. Retrieve the name and phone number of a particular doctor of a particular client
. Retrieve total expenses for each employee
0. Retrieve the list of volunteers that are members of teams that support a particular client
1. Retrieve the names of all teams that were founded after a particular date
2. Retrieve the names, social security numbers, contact information, and emergency contact
information of all people in the database
3. Retrieve the name and total amount donated by donors that are also employees. The list
should be sorted by the total amount of the donations, and indicate if each donor wishes to
email them
4. Increase the salary by 10% of all employees to whom more than one team must report
5. Delete all clients who do not have health insurance and whose value of importance for
transportation is less than 5
6. Import: enter new teams from a data file until the file is empty (the user must be asked
to enter the input file name).
Export: Retrieve names and mailing addresses of all people on the mailing list and
output them to a data file instead of screen (the user must be asked to enter the output file
name)
8. Quit
Enter your choice: 2
Enter Client SSN: 45678
Enter Client Name: virat
Enter Gender
Enter clients professionbatsman
Enter mailing addressDelhi
Enter Email Address: virat@gmail.com
Enter Phone Number:989954321
s on mailing list yes=1/No=0 ?
Enter Doctor Namekohl
Enter Doctor Phone Number:5678904321
Enter Date When First Assigned (YYYY-MM-DD):2024-18-28
Enter team name to associateb2
Enter statusactive
Exception in thread "main" java.lang.IllegalArgumentException
        at java.time.LocalDate.of(LocalDate.java:141)
        at jsp_azure_test.FacultyManager.enterNewClientAndAssociateWithTeams(FacultyManager.java:208)
        at jsp_azure_test.FacultyManager.main(FacultyManager.java:34)
```