1.Create the table：

CREATE TABLE EmployeeAvailability (

EmployeeName VARCHAR(50),

DayOfWeek VARCHAR(10),

TimeSlot TIME,

Availability BOOLEAN DEFAULT FALSE

);

CREATE TABLE TimeSlotEmployees (

DayOfWeek VARCHAR(10),

TimeSlot TIME,

Employee1 VARCHAR(50) DEFAULT NULL,

Employee2 VARCHAR(50) DEFAULT NULL

);

2. insert the values of EmployeeAvailability：

-- Alice

INSERT INTO EmployeeAvailability (EmployeeName, DayOfWeek, TimeSlot)

VALUES

('Alice', 'Monday', '08:30:00'), ('Alice', 'Monday', '09:30:00'), ('Alice', 'Monday', '10:30:00'),

('Alice', 'Monday', '11:30:00'), ('Alice', 'Monday', '12:30:00'), ('Alice', 'Monday', '13:30:00'),

('Alice', 'Monday', '14:30:00'), ('Alice', 'Monday', '15:30:00'),

('Alice', 'Tuesday', '08:30:00'), ('Alice', 'Tuesday', '09:30:00'), ('Alice', 'Tuesday', '10:30:00'),

('Alice', 'Tuesday', '11:30:00'), ('Alice', 'Tuesday', '12:30:00'), ('Alice', 'Tuesday', '13:30:00'),

('Alice', 'Tuesday', '14:30:00'), ('Alice', 'Tuesday', '15:30:00'),

('Alice', 'Wednesday', '08:30:00'), ('Alice', 'Wednesday', '09:30:00'), ('Alice', 'Wednesday', '10:30:00'),

('Alice', 'Wednesday', '11:30:00'), ('Alice', 'Wednesday', '12:30:00'), ('Alice', 'Wednesday', '13:30:00'),

('Alice', 'Wednesday', '14:30:00'), ('Alice', 'Wednesday', '15:30:00'),

('Alice', 'Thursday', '08:30:00'), ('Alice', 'Thursday', '09:30:00'), ('Alice', 'Thursday', '10:30:00'),

('Alice', 'Thursday', '11:30:00'), ('Alice', 'Thursday', '12:30:00'), ('Alice', 'Thursday', '13:30:00'),

('Alice', 'Thursday', '14:30:00'), ('Alice', 'Thursday', '15:30:00'),

('Alice', 'Friday', '08:30:00'), ('Alice', 'Friday', '09:30:00'), ('Alice', 'Friday', '10:30:00'),

('Alice', 'Friday', '11:30:00'), ('Alice', 'Friday', '12:30:00'), ('Alice', 'Friday', '13:30:00'),

('Alice', 'Friday', '14:30:00'), ('Alice', 'Friday', '15:30:00'),

('Alice', 'Saturday', '08:30:00'), ('Alice', 'Saturday', '09:30:00'), ('Alice', 'Saturday', '10:30:00'),

('Alice', 'Saturday', '11:30:00'), ('Alice', 'Saturday', '12:30:00'), ('Alice', 'Saturday', '13:30:00'),

('Alice', 'Saturday', '14:30:00'), ('Alice', 'Saturday', '15:30:00'),

('Alice', 'Sunday', '08:30:00'), ('Alice', 'Sunday', '09:30:00'), ('Alice', 'Sunday', '10:30:00'),

('Alice', 'Sunday', '11:30:00'), ('Alice', 'Sunday', '12:30:00'), ('Alice', 'Sunday', '13:30:00'),

('Alice', 'Sunday', '14:30:00'), ('Alice', 'Sunday', '15:30:00');

--Bob

INSERT INTO EmployeeAvailability (EmployeeName, DayOfWeek, TimeSlot)

VALUES

('Bob', 'Monday', '08:30:00'), ('Bob', 'Monday', '09:30:00'), ('Bob', 'Monday', '10:30:00'),

('Bob', 'Monday', '11:30:00'), ('Bob', 'Monday', '12:30:00'), ('Bob', 'Monday', '13:30:00'),

('Bob', 'Monday', '14:30:00'), ('Bob', 'Monday', '15:30:00'),

('Bob', 'Tuesday', '08:30:00'), ('Bob', 'Tuesday', '09:30:00'), ('Bob', 'Tuesday', '10:30:00'),

('Bob', 'Tuesday', '11:30:00'), ('Bob', 'Tuesday', '12:30:00'), ('Bob', 'Tuesday', '13:30:00'),

('Bob', 'Tuesday', '14:30:00'), ('Bob', 'Tuesday', '15:30:00'),

('Bob', 'Wednesday', '08:30:00'), ('Bob', 'Wednesday', '09:30:00'), ('Bob', 'Wednesday', '10:30:00'),

('Bob', 'Wednesday', '11:30:00'), ('Bob', 'Wednesday', '12:30:00'), ('Bob', 'Wednesday', '13:30:00'),

('Bob', 'Wednesday', '14:30:00'), ('Bob', 'Wednesday', '15:30:00'),

('Bob', 'Thursday', '08:30:00'), ('Bob', 'Thursday', '09:30:00'), ('Bob', 'Thursday', '10:30:00'),

('Bob', 'Thursday', '11:30:00'), ('Bob', 'Thursday', '12:30:00'), ('Bob', 'Thursday', '13:30:00'),

('Bob', 'Thursday', '14:30:00'), ('Bob', 'Thursday', '15:30:00'),

('Bob', 'Friday', '08:30:00'), ('Bob', 'Friday', '09:30:00'), ('Bob', 'Friday', '10:30:00'),

('Bob', 'Friday', '11:30:00'), ('Bob', 'Friday', '12:30:00'), ('Bob', 'Friday', '13:30:00'),

('Bob', 'Friday', '14:30:00'), ('Bob', 'Friday', '15:30:00'),

('Bob', 'Saturday', '08:30:00'), ('Bob', 'Saturday', '09:30:00'), ('Bob', 'Saturday', '10:30:00'),

('Bob', 'Saturday', '11:30:00'), ('Bob', 'Saturday', '12:30:00'), ('Bob', 'Saturday', '13:30:00'),

('Bob', 'Saturday', '14:30:00'), ('Bob', 'Saturday', '15:30:00'),

('Bob', 'Sunday', '08:30:00'), ('Bob', 'Sunday', '09:30:00'), ('Bob', 'Sunday', '10:30:00'),

('Bob', 'Sunday', '11:30:00'), ('Bob', 'Sunday', '12:30:00'), ('Bob', 'Sunday', '13:30:00'),

('Bob', 'Sunday', '14:30:00'), ('Bob', 'Sunday', '15:30:00');

-- Charlie

INSERT INTO EmployeeAvailability (EmployeeName, DayOfWeek, TimeSlot)

VALUES

('Charlie', 'Monday', '08:30:00'), ('Charlie', 'Monday', '09:30:00'), ('Charlie', 'Monday', '10:30:00'),

('Charlie', 'Monday', '11:30:00'), ('Charlie', 'Monday', '12:30:00'), ('Charlie', 'Monday', '13:30:00'),

('Charlie', 'Monday', '14:30:00'), ('Charlie', 'Monday', '15:30:00'),

('Charlie', 'Tuesday', '08:30:00'), ('Charlie', 'Tuesday', '09:30:00'), ('Charlie', 'Tuesday', '10:30:00'),

('Charlie', 'Tuesday', '11:30:00'), ('Charlie', 'Tuesday', '12:30:00'), ('Charlie', 'Tuesday', '13:30:00'),

('Charlie', 'Tuesday', '14:30:00'), ('Charlie', 'Tuesday', '15:30:00'),

('Charlie', 'Wednesday', '08:30:00'), ('Charlie', 'Wednesday', '09:30:00'), ('Charlie', 'Wednesday', '10:30:00'),

('Charlie', 'Wednesday', '11:30:00'), ('Charlie', 'Wednesday', '12:30:00'), ('Charlie', 'Wednesday', '13:30:00'),

('Charlie', 'Wednesday', '14:30:00'), ('Charlie', 'Wednesday', '15:30:00'),

('Charlie', 'Thursday', '08:30:00'), ('Charlie', 'Thursday', '09:30:00'), ('Charlie', 'Thursday', '10:30:00'),

('Charlie', 'Thursday', '11:30:00'), ('Charlie', 'Thursday', '12:30:00'), ('Charlie', 'Thursday', '13:30:00'),

('Charlie', 'Thursday', '14:30:00'), ('Charlie', 'Thursday', '15:30:00'),

('Charlie', 'Friday', '08:30:00'), ('Charlie', 'Friday', '09:30:00'), ('Charlie', 'Friday', '10:30:00'),

('Charlie', 'Friday', '11:30:00'), ('Charlie', 'Friday', '12:30:00'), ('Charlie', 'Friday', '13:30:00'),

('Charlie', 'Friday', '14:30:00'), ('Charlie', 'Friday', '15:30:00'),

('Charlie', 'Saturday', '08:30:00'), ('Charlie', 'Saturday', '09:30:00'), ('Charlie', 'Saturday', '10:30:00'),

('Charlie', 'Saturday', '11:30:00'), ('Charlie', 'Saturday', '12:30:00'), ('Charlie', 'Saturday', '13:30:00'),

('Charlie', 'Saturday', '14:30:00'), ('Charlie', 'Saturday', '15:30:00'),

('Charlie', 'Sunday', '08:30:00'), ('Charlie', 'Sunday', '09:30:00'), ('Charlie', 'Sunday', '10:30:00'),

('Charlie', 'Sunday', '11:30:00'), ('Charlie', 'Sunday', '12:30:00'), ('Charlie', 'Sunday', '13:30:00'),

('Charlie', 'Sunday', '14:30:00'), ('Charlie', 'Sunday', '15:30:00');

-- Diana

INSERT INTO EmployeeAvailability (EmployeeName, DayOfWeek, TimeSlot)

VALUES

('Diana', 'Monday', '08:30:00'), ('Diana', 'Monday', '09:30:00'), ('Diana', 'Monday', '10:30:00'),

('Diana', 'Monday', '11:30:00'), ('Diana', 'Monday', '12:30:00'), ('Diana', 'Monday', '13:30:00'),

('Diana', 'Monday', '14:30:00'), ('Diana', 'Monday', '15:30:00'),

('Diana', 'Tuesday', '08:30:00'), ('Diana', 'Tuesday', '09:30:00'), ('Diana', 'Tuesday', '10:30:00'),

('Diana', 'Tuesday', '11:30:00'), ('Diana', 'Tuesday', '12:30:00'), ('Diana', 'Tuesday', '13:30:00'),

('Diana', 'Tuesday', '14:30:00'), ('Diana', 'Tuesday', '15:30:00'),

('Diana', 'Wednesday', '08:30:00'), ('Diana', 'Wednesday', '09:30:00'), ('Diana', 'Wednesday', '10:30:00'),

('Diana', 'Wednesday', '11:30:00'), ('Diana', 'Wednesday', '12:30:00'), ('Diana', 'Wednesday', '13:30:00'),

('Diana', 'Wednesday', '14:30:00'), ('Diana', 'Wednesday', '15:30:00'),

('Diana', 'Thursday', '08:30:00'), ('Diana', 'Thursday', '09:30:00'), ('Diana', 'Thursday', '10:30:00'),

('Diana', 'Thursday', '11:30:00'), ('Diana', 'Thursday', '12:30:00'), ('Diana', 'Thursday', '13:30:00'),

('Diana', 'Thursday', '14:30:00'), ('Diana', 'Thursday', '15:30:00'),

('Diana', 'Friday', '08:30:00'), ('Diana', 'Friday', '09:30:00'), ('Diana', 'Friday', '10:30:00'),

('Diana', 'Friday', '11:30:00'), ('Diana', 'Friday', '12:30:00'), ('Diana', 'Friday', '13:30:00'),

('Diana', 'Friday', '14:30:00'), ('Diana', 'Friday', '15:30:00'),

('Diana', 'Saturday', '08:30:00'), ('Diana', 'Saturday', '09:30:00'), ('Diana', 'Saturday', '10:30:00'),

('Diana', 'Saturday', '11:30:00'), ('Diana', 'Saturday', '12:30:00'), ('Diana', 'Saturday', '13:30:00'),

('Diana', 'Saturday', '14:30:00'), ('Diana', 'Saturday', '15:30:00'),

('Diana', 'Sunday', '08:30:00'), ('Diana', 'Sunday', '09:30:00'), ('Diana', 'Sunday', '10:30:00'),

('Diana', 'Sunday', '11:30:00'), ('Diana', 'Sunday', '12:30:00'), ('Diana', 'Sunday', '13:30:00'),

('Diana', 'Sunday', '14:30:00'), ('Diana', 'Sunday', '15:30:00');

-- Eve

INSERT INTO EmployeeAvailability (EmployeeName, DayOfWeek, TimeSlot)

VALUES

('Eve', 'Monday', '08:30:00'), ('Eve', 'Monday', '09:30:00'), ('Eve', 'Monday', '10:30:00'),

('Eve', 'Monday', '11:30:00'), ('Eve', 'Monday', '12:30:00'), ('Eve', 'Monday', '13:30:00'),

('Eve', 'Monday', '14:30:00'), ('Eve', 'Monday', '15:30:00'),

('Eve', 'Tuesday', '08:30:00'), ('Eve', 'Tuesday', '09:30:00'), ('Eve', 'Tuesday', '10:30:00'),

('Eve', 'Tuesday', '11:30:00'), ('Eve', 'Tuesday', '12:30:00'), ('Eve', 'Tuesday', '13:30:00'),

('Eve', 'Tuesday', '14:30:00'), ('Eve', 'Tuesday', '15:30:00'),

('Eve', 'Wednesday', '08:30:00'), ('Eve', 'Wednesday', '09:30:00'), ('Eve', 'Wednesday', '10:30:00'),

('Eve', 'Wednesday', '11:30:00'), ('Eve', 'Wednesday', '12:30:00'), ('Eve', 'Wednesday', '13:30:00'),

('Eve', 'Wednesday', '14:30:00'), ('Eve', 'Wednesday', '15:30:00'),

('Eve', 'Thursday', '08:30:00'), ('Eve', 'Thursday', '09:30:00'), ('Eve', 'Thursday', '10:30:00'),

('Eve', 'Thursday', '11:30:00'), ('Eve', 'Thursday', '12:30:00'), ('Eve', 'Thursday', '13:30:00'),

('Eve', 'Thursday', '14:30:00'), ('Eve', 'Thursday', '15:30:00'),

('Eve', 'Friday', '08:30:00'), ('Eve', 'Friday', '09:30:00'), ('Eve', 'Friday', '10:30:00'),

('Eve', 'Friday', '11:30:00'), ('Eve', 'Friday', '12:30:00'), ('Eve', 'Friday', '13:30:00'),

('Eve', 'Friday', '14:30:00'), ('Eve', 'Friday', '15:30:00'),

('Eve', 'Saturday', '08:30:00'), ('Eve', 'Saturday', '09:30:00'), ('Eve', 'Saturday', '10:30:00'),

('Eve', 'Saturday', '11:30:00'), ('Eve', 'Saturday', '12:30:00'), ('Eve', 'Saturday', '13:30:00'),

('Eve', 'Saturday', '14:30:00'), ('Eve', 'Saturday', '15:30:00'),

('Eve', 'Sunday', '08:30:00'), ('Eve', 'Sunday', '09:30:00'), ('Eve', 'Sunday', '10:30:00'),

('Eve', 'Sunday', '11:30:00'), ('Eve', 'Sunday', '12:30:00'), ('Eve', 'Sunday', '13:30:00'),

('Eve', 'Sunday', '14:30:00'), ('Eve', 'Sunday', '15:30:00');

-- Frank

INSERT INTO EmployeeAvailability (EmployeeName, DayOfWeek, TimeSlot)

VALUES

('Frank', 'Monday', '08:30:00'), ('Frank', 'Monday', '09:30:00'), ('Frank', 'Monday', '10:30:00'),

('Frank', 'Monday', '11:30:00'), ('Frank', 'Monday', '12:30:00'), ('Frank', 'Monday', '13:30:00'),

('Frank', 'Monday', '14:30:00'), ('Frank', 'Monday', '15:30:00'),

('Frank', 'Tuesday', '08:30:00'), ('Frank', 'Tuesday', '09:30:00'), ('Frank', 'Tuesday', '10:30:00'),

('Frank', 'Tuesday', '11:30:00'), ('Frank', 'Tuesday', '12:30:00'), ('Frank', 'Tuesday', '13:30:00'),

('Frank', 'Tuesday', '14:30:00'), ('Frank', 'Tuesday', '15:30:00'),

('Frank', 'Wednesday', '08:30:00'), ('Frank', 'Wednesday', '09:30:00'), ('Frank', 'Wednesday', '10:30:00'),

('Frank', 'Wednesday', '11:30:00'), ('Frank', 'Wednesday', '12:30:00'), ('Frank', 'Wednesday', '13:30:00'),

('Frank', 'Wednesday', '14:30:00'), ('Frank', 'Wednesday', '15:30:00'),

('Frank', 'Thursday', '08:30:00'), ('Frank', 'Thursday', '09:30:00'), ('Frank', 'Thursday', '10:30:00'),

('Frank', 'Thursday', '11:30:00'), ('Frank', 'Thursday', '12:30:00'), ('Frank', 'Thursday', '13:30:00'),

('Frank', 'Thursday', '14:30:00'), ('Frank', 'Thursday', '15:30:00'),

('Frank', 'Friday', '08:30:00'), ('Frank', 'Friday', '09:30:00'), ('Frank', 'Friday', '10:30:00'),

('Frank', 'Friday', '11:30:00'), ('Frank', 'Friday', '12:30:00'), ('Frank', 'Friday', '13:30:00'),

('Frank', 'Friday', '14:30:00'), ('Frank', 'Friday', '15:30:00'),

('Frank', 'Saturday', '08:30:00'), ('Frank', 'Saturday', '09:30:00'), ('Frank', 'Saturday', '10:30:00'),

('Frank', 'Saturday', '11:30:00'), ('Frank', 'Saturday', '12:30:00'), ('Frank', 'Saturday', '13:30:00'),

('Frank', 'Saturday', '14:30:00'), ('Frank', 'Saturday', '15:30:00'),

('Frank', 'Sunday', '08:30:00'), ('Frank', 'Sunday', '09:30:00'), ('Frank', 'Sunday', '10:30:00'),

('Frank', 'Sunday', '11:30:00'), ('Frank', 'Sunday', '12:30:00'), ('Frank', 'Sunday', '13:30:00'),

('Frank', 'Sunday', '14:30:00'), ('Frank', 'Sunday', '15:30:00');

-- Grace

INSERT INTO EmployeeAvailability (EmployeeName, DayOfWeek, TimeSlot)

VALUES

('Grace', 'Monday', '08:30:00'), ('Grace', 'Monday', '09:30:00'), ('Grace', 'Monday', '10:30:00'),

('Grace', 'Monday', '11:30:00'), ('Grace', 'Monday', '12:30:00'), ('Grace', 'Monday', '13:30:00'),

('Grace', 'Monday', '14:30:00'), ('Grace', 'Monday', '15:30:00'),

('Grace', 'Tuesday', '08:30:00'), ('Grace', 'Tuesday', '09:30:00'), ('Grace', 'Tuesday', '10:30:00'),

('Grace', 'Tuesday', '11:30:00'), ('Grace', 'Tuesday', '12:30:00'), ('Grace', 'Tuesday', '13:30:00'),

('Grace', 'Tuesday', '14:30:00'), ('Grace', 'Tuesday', '15:30:00'),

('Grace', 'Wednesday', '08:30:00'), ('Grace', 'Wednesday', '09:30:00'), ('Grace', 'Wednesday', '10:30:00'),

('Grace', 'Wednesday', '11:30:00'), ('Grace', 'Wednesday', '12:30:00'), ('Grace', 'Wednesday', '13:30:00'),

('Grace', 'Wednesday', '14:30:00'), ('Grace', 'Wednesday', '15:30:00'),

('Grace', 'Thursday', '08:30:00'), ('Grace', 'Thursday', '09:30:00'), ('Grace', 'Thursday', '10:30:00'),

('Grace', 'Thursday', '11:30:00'), ('Grace', 'Thursday', '12:30:00'), ('Grace', 'Thursday', '13:30:00'),

('Grace', 'Thursday', '14:30:00'), ('Grace', 'Thursday', '15:30:00'),

('Grace', 'Friday', '08:30:00'), ('Grace', 'Friday', '09:30:00'), ('Grace', 'Friday', '10:30:00'),

('Grace', 'Friday', '11:30:00'), ('Grace', 'Friday', '12:30:00'), ('Grace', 'Friday', '13:30:00'),

('Grace', 'Friday', '14:30:00'), ('Grace', 'Friday', '15:30:00'),

('Grace', 'Saturday', '08:30:00'), ('Grace', 'Saturday', '09:30:00'), ('Grace', 'Saturday', '10:30:00'),

('Grace', 'Saturday', '11:30:00'), ('Grace', 'Saturday', '12:30:00'), ('Grace', 'Saturday', '13:30:00'),

('Grace', 'Saturday', '14:30:00'), ('Grace', 'Saturday', '15:30:00'),

('Grace', 'Sunday', '08:30:00'), ('Grace', 'Sunday', '09:30:00'), ('Grace', 'Sunday', '10:30:00'),

('Grace', 'Sunday', '11:30:00'), ('Grace', 'Sunday', '12:30:00'), ('Grace', 'Sunday', '13:30:00'),

('Grace', 'Sunday', '14:30:00'), ('Grace', 'Sunday', '15:30:00');

3.insert the values of TimeSlotEmployees table：

--Employee1 and Employee2 NULL

INSERT INTO TimeSlotEmployees (DayOfWeek, TimeSlot)

VALUES

('Monday', '08:30:00'), ('Monday', '09:30:00'), ('Monday', '10:30:00'),

('Monday', '11:30:00'), ('Monday', '12:30:00'), ('Monday', '13:30:00'),

('Monday', '14:30:00'), ('Monday', '15:30:00'),

('Tuesday', '08:30:00'), ('Tuesday', '09:30:00'), ('Tuesday', '10:30:00'),

('Tuesday', '11:30:00'), ('Tuesday', '12:30:00'), ('Tuesday', '13:30:00'),

('Tuesday', '14:30:00'), ('Tuesday', '15:30:00'),

('Wednesday', '08:30:00'), ('Wednesday', '09:30:00'), ('Wednesday', '10:30:00'),

('Wednesday', '11:30:00'), ('Wednesday', '12:30:00'), ('Wednesday', '13:30:00'),

('Wednesday', '14:30:00'), ('Wednesday', '15:30:00'),

('Thursday', '08:30:00'), ('Thursday', '09:30:00'), ('Thursday', '10:30:00'),

('Thursday', '11:30:00'), ('Thursday', '12:30:00'), ('Thursday', '13:30:00'),

('Thursday', '14:30:00'), ('Thursday', '15:30:00'),

('Friday', '08:30:00'), ('Friday', '09:30:00'), ('Friday', '10:30:00'),

('Friday', '11:30:00'), ('Friday', '12:30:00'), ('Friday', '13:30:00'),

('Friday', '14:30:00'), ('Friday', '15:30:00'),

('Saturday', '08:30:00'), ('Saturday', '09:30:00'), ('Saturday', '10:30:00'),

('Saturday', '11:30:00'), ('Saturday', '12:30:00'), ('Saturday', '13:30:00'),

('Saturday', '14:30:00'), ('Saturday', '15:30:00'),

('Sunday', '08:30:00'), ('Sunday', '09:30:00'), ('Sunday', '10:30:00'),

('Sunday', '11:30:00'), ('Sunday', '12:30:00'), ('Sunday', '13:30:00'),

('Sunday', '14:30:00'), ('Sunday', '15:30:00');

4.update TimeSlotEmployees table

-- First, update Employee1 if it is NULL and the employee's total assignments are less than 20

UPDATE TimeSlotEmployees tse

JOIN EmployeeAvailability ea

ON tse.DayOfWeek = ea.DayOfWeek

AND tse.TimeSlot = ea.TimeSlot

LEFT JOIN (

SELECT EmployeeName, COUNT(\*) AS AssignmentCount

FROM (

SELECT Employee1 AS EmployeeName FROM TimeSlotEmployees WHERE Employee1 IS NOT NULL

UNION ALL

SELECT Employee2 AS EmployeeName FROM TimeSlotEmployees WHERE Employee2 IS NOT NULL

) AS EmployeeCounts

GROUP BY EmployeeName

) AS ec

ON ea.EmployeeName = ec.EmployeeName

SET

tse.Employee1 = ea.EmployeeName

WHERE

ea.Availability = TRUE

AND tse.Employee1 IS NULL

AND (ec.AssignmentCount IS NULL OR ec.AssignmentCount < 20);

-- Next, update Employee2 if Employee1 is assigned and Employee2 is NULL, with the same constraint

UPDATE TimeSlotEmployees tse

JOIN EmployeeAvailability ea

ON tse.DayOfWeek = ea.DayOfWeek

AND tse.TimeSlot = ea.TimeSlot

LEFT JOIN (

SELECT EmployeeName, COUNT(\*) AS AssignmentCount

FROM (

SELECT Employee1 AS EmployeeName FROM TimeSlotEmployees WHERE Employee1 IS NOT NULL

UNION ALL

SELECT Employee2 AS EmployeeName FROM TimeSlotEmployees WHERE Employee2 IS NOT NULL

) AS EmployeeCounts

GROUP BY EmployeeName

) AS ec

ON ea.EmployeeName = ec.EmployeeName

SET

tse.Employee2 = ea.EmployeeName

WHERE

ea.Availability = TRUE

AND tse.Employee1 IS NOT NULL

AND tse.Employee1 != ea.EmployeeName

AND tse.Employee2 IS NULL

AND (ec.AssignmentCount IS NULL OR ec.AssignmentCount < 20);