

תרגיל בית 2 בקורס מסדי נתונים:

שאלות ב- SQL Server (חלק 1)

שם המערכת: "Top Gambling"

סמסטר: אביב, תשפ"ג

מחלקה: תעשייה וניהול

מגישים:

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הנחות:

הנחות בסיסיות להבהרה לבודק התרגילים – עד עמוד. אין צורך לכתוב דברים הכתובים בסיפור המעשה, אלא רק הנחות ייחודיות לכם. אין חובה למלא סעיף זה.

שאלתה 1:

קוד השאלתה:

```
SELECT DISTINCT P.ID AS IdentityCard, P.firstName + ' ' + P.surName AS
FullName,
DATEDIFF(YEAR, P.birthDate, GETDATE()) AS Age,
R.slotID AS MachineId, S.betAmount, G.gameName
FROM Player P
INNER JOIN RoundInSlot R ON P.ID = R.playerID
INNER JOIN SlotMachine S ON R.slotID = S.ID
INNER JOIN GameType G ON S.gameTypeNo = G.gameTypeNo
WHERE YEAR(R.roundDateTime) = YEAR(GETDATE())
ORDER BY age DESC;
```

שאלתה 2:

קוד השאלתה:

```
SELECT DISTINCT p.ID AS PlayerId, P.firstName + ' ' + P.surName AS FullName,
GT.gameName AS GameName
FROM Player P
INNER JOIN PlayerLike PL ON P.ID = PL.playerID
INNER JOIN ParticipateIn PIN ON p.ID = PIN.playerID
INNER JOIN GameInATable GIAT ON PIN.tableNumber = GIAT.tableNumber AND
PIN.gameDateTime = GIAT.gameStartDateTime
INNER JOIN GameTable GTBL ON GIAT.tableNumber = GTBL.number
INNER JOIN GameType GT ON GTBL.gameTypeNo = GTBL.gameTypeNo
WHERE PL.dealerNumber != GIAT.DealerInGame AND GTBL.gameTypeNo = PL.gameTypeNo
```

שאלתה 3:

קוד השאלתה:

```
SELECT Player.ID, Player.firstName + ' ' + Player.surName AS FullName,
DATEDIFF(YEAR, Player.birthDate, GETDATE()) AS Age, totWinAmount, GameType
FROM (
(
SELECT PIN.playerID, PIN.winLosAmount - pin.betAmount AS totWinAmount, 'Table
Game' AS GameType
FROM ParticipateIn PIN
WHERE PIN.winLosAmount > PIN.betAmount
)
UNION ALL
(
SELECT RIS.playerID, RIS.winAmount - SM.betAmount AS totWinAmount, 'Machine
Game' AS GameType
FROM RoundInSlot RIS
INNER JOIN SlotMachine SM ON ris.slotID = SM.ID
WHERE RIS.winAmount > SM.betAmount
)
) AS Games
INNER JOIN Player ON Games.playerID = Player.ID
ORDER BY totWinAmount DESC, Age ASC;
```

שאלתה 4:

א. קוד השאלתה:

```
SELECT P.ID, P.firstName, P.surName, GT.gameTypeNo, GT.gameName
FROM PlayerLike PL
INNER JOIN FrequentPlayer FP ON PL.playerID = FP.ID
INNER JOIN Player P ON FP.ID = P.ID
INNER JOIN GameType GT ON PL.gameTypeNo = GT.gameTypeNo
```

EXCEPT

```
SELECT P.ID, P.firstName, P.surName, GT.gameTypeNo, GT.gameName
FROM ParticipateIn PIN
INNER JOIN GameInATable GIT ON PIN.tableNumber = GIT.tableNumber AND
PIN.gameDateTime = GIT.gameStartDateTime
INNER JOIN GameTable GTB ON GIT.tableNumber = GTB.number
INNER JOIN GameType GT ON GTB.gameTypeNo = GT.gameTypeNo
INNER JOIN Player P ON PIN.playerID = P.ID
```

ב. קוד השאלתה:

```
SELECT P.ID, P.firstName, P.surName, GT.gameTypeNo, GT.gameName
FROM PlayerLike PL
INNER JOIN FrequentPlayer FP ON PL.playerID = FP.ID
INNER JOIN Player P ON FP.ID = P.ID
INNER JOIN GameType GT ON PL.gameTypeNo = GT.gameTypeNo
LEFT JOIN
(
SELECT PIN.playerID, GT.gameTypeNo
FROM ParticipateIn PIN
```

```

INNER JOIN GameInATable GIT ON PIN.tableNumber = GIT.tableNumber AND
PIN.gameDateTime = GIT.gameStartDateTime
INNER JOIN GameTable GTB ON GIT.tableNumber = GTB.number
INNER JOIN GameType GT ON GTB.gameTypeNo = GT.gameTypeNo
) AS PlayedGames ON P.ID = PlayedGames.playerID AND GT.gameTypeNo =
PlayedGames.gameTypeNo
WHERE PlayedGames.playerID IS NULL

```

שאלתה 5: קוד השאלתה:

```

SELECT P.firstName + ' ' + P.surName as FullName , P.ID
FROM Player P
WHERE
EXISTS
(
SELECT *
FROM ParticipateIn PI
WHERE PI.playerID = P.ID AND PI.betAmount <= 50
)
AND NOT EXISTS
(
SELECT *
FROM ParticipateIn PI
WHERE PI.playerID = P.ID AND PI.betAmount > 50
)
AND NOT EXISTS
(
SELECT *
FROM RoundInSlot RS
WHERE RS.playerID = P.ID AND RS.winAmount <= 50
)
AND EXISTS
(
SELECT *
FROM RoundInSlot RS
WHERE RS.playerID = P.ID
)
AND EXISTS
(
SELECT *
FROM offence 01
WHERE 01.playerID = P.ID AND EXISTS (
SELECT *
FROM offence 02
WHERE 02.playerID = 01.playerID AND 02.serialNum != 01.serialNum
))

```

שאלתה 6:

קוד השאילתה:

```
SELECT GT.gameTypeNo, GT.gameName, D.number AS dealerID, D.firstName + ' ' +  
D.surName AS fullName,  
DATEDIFF(year, d.birthDate, GETDATE()) AS Age,  
DATEDIFF(year, d.startWorkingDate, GETDATE()) AS SeniorityInYears,  
DATEDIFF(month, q.qualificationDate, GETDATE()) AS MonthsCertified  
FROM Dealer D  
INNER JOIN qualifiedTo Q ON D.number = Q.dealerNum  
INNER JOIN GameType GT ON Q.gameTypeNo = GT.gameTypeNo  
WHERE DATEDIFF(month, q.qualificationDate, GETDATE()) =  
(  
SELECT MAX(DATEDIFF(month, qualificationDate, GETDATE()))  
FROM qualifiedTo  
WHERE gameTypeNo = GT.gameTypeNo)  
  
ORDER BY GT.gameTypeNo;
```

שאילתה 7:

קוד השאילתה:

```
SELECT P.ID , P.firstName + ' ' + P.surName as FullName  
FROM Player P  
WHERE  
NOT EXISTS  
(  
SELECT GT.gameTypeNo  
FROM GameType GT  
WHERE GT.gameTypeNo  
NOT IN (  
SELECT GT1.gameTypeNo  
FROM GameInATable GIT  
INNER JOIN GameTable GTB ON GIT.tableNumber = GTB.number  
INNER JOIN GameType GT1 ON GTB.gameTypeNo = GT1.gameTypeNo  
INNER JOIN ParticipateIn PIN ON GIT.tableNumber = PIN.tableNumber  
WHERE PIN.playerID = P.ID  
UNION  
SELECT GT2.gameTypeNo  
FROM RoundInSlot RIS  
INNER JOIN SlotMachine SM ON RIS.slotID = SM.ID  
INNER JOIN GameType GT2 ON SM.gameTypeNo = GT2.gameTypeNo  
WHERE RIS.playerID = P.ID  
)  
)
```