

گزارش گیری از لیگ :

۱- جدول لیگ شامل نام تیم ها و آمار رفتی آنها (تعداد بازی ها ...

$TEAMS \leftarrow \sigma_{Team-ID} (Team)$

$R1 \leftarrow \pi_{Name} (TEAMS) \bowtie \pi_{Tot.Games,$

Win, Lose, Draw, Goal-Scored, Goal-Against
(schedule of Results)

$R2 \leftarrow f_{sum} Type (warning)$

$R3 \leftarrow \pi_{Type} (warning)$

$R4 \leftarrow R1 \bowtie R2 \bowtie R3$

۲- آمار بازی‌های انجام شده در لیگ (باریک هفته از لیگ) شامل ...

$$R1 \leftarrow \sigma_{\text{League-ID} = \#} (\text{Match})$$

$$R2 \leftarrow \pi_{\text{match-ID}, \text{play as host}} (R1)$$

$$R3 \leftarrow \pi_{\text{match-ID}, \text{Name}} (R2 * \text{Team})$$

$$R4 \leftarrow \pi_{\text{match-ID}, \text{play as away}} (R1)$$

$$R5 \leftarrow \pi_{\text{match-ID}, \text{Name}} (R4 * \text{Team})$$

$$R6 \leftarrow R1 * (\pi_{\text{stadium-ID}, \text{city}} (\text{stadium}))$$

$$R7 \leftarrow \pi_{\text{match-ID}} (R1)$$

$R_8 \leftarrow R_7 * \text{Ticket}$

$R_9 \leftarrow \text{Match-ID COUNT Ticket-ID } (R_8)$

$R_{10} \leftarrow \text{Match-ID SUM Price } (R_8)$

$R_{11} \leftarrow R_7 * \text{Match-observers}$

$\text{REFEREES} \leftarrow \pi_{\text{Match-ID, F-name, L-name}} (R_{11} * \text{REFEREE} * \text{PERSON})$

$R_{12} \leftarrow R_1 * R_3 * R_5 * R_6 * R_9 * R_{10}$

$\text{RESULT} \leftarrow \pi_{\text{Match-ID, play as host, play as away, number of sold, price, total money, REFEREES, Match-observers}} (R_{12})$

۴- استخراج بازیکنان شاغل در لیگ (شامل تعداد بازی های انجام شده ...)

$R1 \leftarrow \sigma_{\text{League-ID} = \#} (\text{PLAYS-IN})$

$R2 \leftarrow \sigma_{\text{League-ID} = \#} (\text{League})$

$R3 \leftarrow \text{PLAYER-SIGNS} * \text{CONTRACT}$

$R4 \leftarrow R1 * R3$

$R5 \leftarrow R4 \bowtie_{\text{EXP. Date} > \text{Final_date} \ \& \ \text{Start_date} \leq \text{Final_Date}} R2$

$R6 \leftarrow \pi_{\text{player_ID}} (R5)$

$R7 \leftarrow \sigma_{\text{League-ID} = \#} (\text{PLAYS-IN} * \text{Match})$

R8 \leftarrow R6 * R7

R9 \leftarrow Player-ID f COUNT Match-ID (R8)

R10 \leftarrow R6 * σ League-ID=# (GOAL)

R11 \leftarrow player-ID f COUNT G-ID (R10)

R12 \leftarrow σ League-ID=# (WARNING)

R13 \leftarrow σ Type='Yellow card' (R12)

R14 \leftarrow σ Type='Red card' (R12)

R15 \leftarrow R6 * R14 no red card

R16 \leftarrow R6 * R13 no yellow card

R17 \leftarrow player-ID f COUNT W-ID (R15)

R18 \leftarrow player-ID f COUNT W-ID (R16)

R19 \leftarrow player-ID f AVERAGE score (R8)

Note:

R:

$R_{20} \leftarrow R_6 * PERSON$

$R_{21} \leftarrow R_{20} \bowtie R_{20}.Player-ID = R_9.Player-ID \ R_9$

$R_{22} \leftarrow R_{21} \bowtie R_{21}.player-ID = R_{11}.player-ID \ R_{11}$

$R_{23} \leftarrow R_{22} \bowtie R_{22}.player-ID = R_{17}.player-ID \ R_{17}$

$R_{24} \leftarrow R_{23} \bowtie R_{23}.player-ID = R_{18}.Player-ID \ R_{18}$

$R_{25} \leftarrow R_{24} \bowtie R_{24}.player-ID = R_{19}.player-ID \ R_{19}$

$RESULT \leftarrow \pi player-ID, F-name, L-name, no_matches,$
 $no_goals, no_yellow, no_red, AVG\ score \ (R_{25})$