

3618

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A.

1.

```
RESULT <-  $\pi$ (FNAME)  $\wedge$   $\pi$ (LNAME) ( $\sigma$ (TNAME)= "Real Madrid")
```

2.

```
RESULT <-  $\pi$ (MID) ( $\sigma$ (PLAYER.LNAME) = "Silva")  $\vee$  ( $\sigma$ (COACHES.GUESTCID)  
=  $\sigma$ (MANAGER.CID)  $\wedge$   $\sigma$ (LNAME) = "Silva")
```

3.

```
RESULT <-  $\pi$ (MANAGER.FNAME)  $\wedge$   $\pi$ (MANAGER.LNAME)  $\wedge$   
 $\pi$ (TNAME) ( $\sigma$ (MANAGER.TID) =  $\sigma$ (TEAM.TID))
```

4.

```
RESULT <-  $\pi$ (PLAYER.PID) ( $\sigma$ (PLAYER.SALARY) >  $\sigma$ (PLAYER.SALARY)  $\wedge$  -  
( $\sigma$ (PLAYER.SALARY) <=  $\sigma$ (PLAYER.SALARY))
```

5.

```
RESULT <-  $\pi$ (MANAGER.CID) ( $\sigma$ (MANAGER.SALARY) <  $\sigma$ (MANAGER.SALARY)  $\wedge$   
- ( $\sigma$ (MANAGER.SALARY) >=  $\sigma$ (MANAGER.SALARY))
```

6.

```
RESULT <-  $\pi$ (PLAYER.PID) ( $\sigma$ (PLAYER.PID) =  $\sigma$ (PLAYED.PID)  $\wedge$   
 $\sigma$ (PLAYER.TID) =  $\sigma$ (TEAM.TID)  $\wedge$   $\sigma$ (TNAME) = "Juventus")
```

7.

```
RESULT <-  $\pi$ (FNAME)  $\wedge$   $\pi$ (LNAME) ( $\sigma$ (POSITION) = "Forward"  $\wedge$  2018-  
 $\sigma$ (PLAYER.BDATE) < 32)
```

B.

```
CREATE TABLE IF NOT EXISTS PLAYER{  
    PID int;  
    FNAME varchar(20);  
    LNAME varchar(20);  
    BDATE varchar(20);  
    POSITION varchar(20);  
    SALARY double;  
    TID int;  
}
```

```
CREATE TABLE IF NOT EXISTS TEAM{  
    TID int;  
    TNAME varchar(20);  
    STADIUM varchar(20);  
    CITY varchar(20);  
}
```

```
CREATE TABLE IF NOT EXISTS MATCHES{  
    MID int;
```

```

        HOSTID int;
        GUESTID int;
        DATE varchar(20);
        HOSTSCORE int;
        GUESTSCORE int;
    }

CREATE TABLE IF NOT EXISTS PLAYED{
    PID int;
    MID int;
}

CREATE TABLE IF NOT EXISTS MANAGER{
    CID int;
    FNAME varchar(20);
    LNAME varchar(20);
    SALARY double;
    BDATE varchar(20);
    TID int;
}

CREATE TABLE IF NOT EXISTS COACHES{
    HOSTCID int;
    GUESTCID int;
    MID int;
}

CREATE TABLE IF NOT EXISTS players{
    PLAYERS PLAYER;
    max double;
    pid int;
}

CREATE TABLE IF NOT EXISTS managers{
    MANAGERS MANAGER;
    min double;
    cid int;
}

CREATE TABLE IF NOT EXISTS matches{
    Matches MATCHES;
}

CREATE TABLE IF NOT EXISTS played{
    Played PLAYED;
}

1. SELECT FNAME, LNAME, TNAME FROM PLAYER,TEAM WHERE TNAME =
"REAL MADRID";
2. SELECT MID, LNAME, LNAME FROM MATCHES, MANAGER WHERE LNAME =
"Silva" OR LNAME = "Silva";
3. SELECT FNAME, LNAME, TNAME FROM MANAGER,TEAM

```

```

4. SELECT PID, PLAYERS, max, pid FROM PLAYER, players
    max = PLAYERS[0].SALARY;
    pid = PLAYERS[0].PID;
    for(i = 1 int; i < PLAYERS.length; i++){
        WHERE PLAYERS[i].SALARY > max{
            max = PLAYERS[i].SALARY;
            pid = PLAYERS[i].PID;
        }
    }
5. SELECT CID, MANAGERS, min, cid FROM MANAGER, managers
    min = MANAGERS[0].SALARY;
    cid = MANAGERS[0].CID;
    for(i = 1 int; i < MANAGERS.length; i++){
        WHERE MANAGERS[i].SALARY < min{
            min = MANAGERS[i].SALARY;
            cid = MANAGERS[i].CID;
        }
    }
6. SELECT pid, PLAYERS, Matches, Played, TNAME
    FROM TEAM, played, matches, players
    WHERE Played.MID = Matches.MID
    AND Played.PID = PLAYERS.PID
    AND TNAME = "Juventus"
7. SELECT FNAME, LNAME, BDATE, PLAYERS FROM players, PLAYER
    WHERE 2018 - BDATE < 32 AND PLAYERS.POSITION = "Forward"

```

```

1.
Sergio | Ramos
Luka   | Modric

```

```

2.
1
2
3

```

```

3.
Zinedine      | Zidane   |
Ernesto       | Valverde | Barcelona
Marco         | Silva    | Everton
Massimiliano  | Allegri  | Juventus
Thomas        | Tuchel   | Paris Saint-Germain
Santiago      | Solari   | Real Madrid
Pep           | Guardiola | Manchester City

```

```

4.
4

```

```

5.
3

```

```

6.

```

1

7.

Lionel | Messi

Neymar | Santos

Theo | Walcott

Manos | Anagnostakis