**2023 ITM Database Management**

**Lab Assignment #1 – ER Diagram Lim Saeyeon (#21102054)**

Below is a diagram that reflects both the requirements of part1 and part2.

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**[ Part 1 ]**

**1. Add new concepts**

1) The **Relationship “Participate in** “**between “Players” and “Plays”** was added.

The **Attributes of Relationship** are **“Pass”** and **“Run”**.

=Players participate in plays, and pass and run can be done during the plays.텍스트이(가) 표시된 사진

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2) The new **Entity set**, **“Personal Record”** was added.

**Between “Players” and “Personal Record”**, there is a **relationship “Archieve”**.

= Players archieve their Personal Records.

And, there is a **relationship “Effect” between “Personal Record”** and **“Games”**.

= Personal Record effects games.

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3) The **Entity Sets “Weight**” and **“Season”** were added.

The **attributes of “Weight”** is **“Weight”**.

**“On-Season”** and **“Off-season”** are the **attributes of “Season”**.

**“Weight Of”** is the **relationship between “Weight” and “Players”**, and **“Change”** is the **relationship between “Weight” and “Season”**.

= Weight of Players change according to season period.

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**2. Add arrows**

1) “Players” consist of “Teams”. Each team can own many players.

=> **Many-to-one** Relationship in **“Member of”** Relationship **beween “Players” and “Teams”.**

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2) It is possible to Many ‘Teams” are located in a “City”. However, one team can’t locate in several cities.

=> **Many-to-one** Relationship in **“Located In”** relationship **between “Teams” and “Cities”.**

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**[ Part 2 ]**

**1. Weak entity sets**

: **“Teams”** belong to “Cities” as weak entity sets. **“Team ID” is depending on “City name”.** The key of “Teams” is coming from key of “Cities”, which is the “name” of cities.

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**2. Subclasses**

: Players are either on two roles in football, offense, or defense. So, I made a new **entity set “Position”** and “isA”. There are **two subclasses “Offense” and “deffense”** under “Position”. Each position has certain types in the field so that they have **type attributes** respectively. 도표이(가) 표시된 사진

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