

Knockout DB - English Description

Knockout DB aims to deliver a robust and highly detailed platform that tracks fighter performance and fight outcomes within the UFC. The system is designed with multiple interconnected entities, each representing crucial aspects of UFC events and statistics. At its core, the database centers around the **Fighter** entity, which captures essential attributes like the fighter's unique ID, name, weight class, and nationality. This entity is linked to other components of the database through several relationships, such as the **Participates In** relationship, which connects fighters to the **Event** entity via the associative table **Fighters_events**. This table not only stores which fighters participated in specific events but also provides additional context such as the round number and the results of the event for each fighter.

The **Event** entity itself tracks information about UFC events, including event IDs, names, dates, and locations. This entity is further linked to the **Fight** entity through the **Contains** relationship, capturing details about specific fights that occurred during an event. Each fight is uniquely identified by its fight ID and event ID, allowing for a primary key that ensures uniqueness within the database. Additional fight-specific details, such as the fighters involved, fight outcome, number of rounds, and method of victory, are stored in this table to provide a comprehensive view of each contest.

The **Fighter_statistics** entity connects individual fighters to specific **Statistics**, such as strike accuracy or takedown success rate, through the **Represents** relationship. The associative table records things like the statistical value, allowing users to query performance data and compare fighters based on their abilities. The ER model also uses foreign key constraints which are applied throughout the schema, such as the connection between the **Fight** and **Fighter** entities through the **fighter_one_id** and **fighter_two_id** attributes.

Additionally, the design supports two N:N relationships where appropriate, as seen between fighters and fighters_events and their statistics. By organizing data in this way, the database ensures future scalability, reliability, and ease of access for a wide range of users, from UFC analysts to casual fans (as mentioned in the initial proposal all the way back in assignment 1).

Overall, **Knockout DB** is structured to not only meet current needs for tracking and analyzing UFC fight data but also to adapt to future requirements, such as incorporating new statistics or event types. This makes it a versatile tool for anyone invested in the sport, providing both casuals and analysts with an opportunity to know this sport.

