3. Ejercicio de Modelación de Base de Datos Pokemon TCG

Construcción de software y toma de decisiones (Gpo 401)
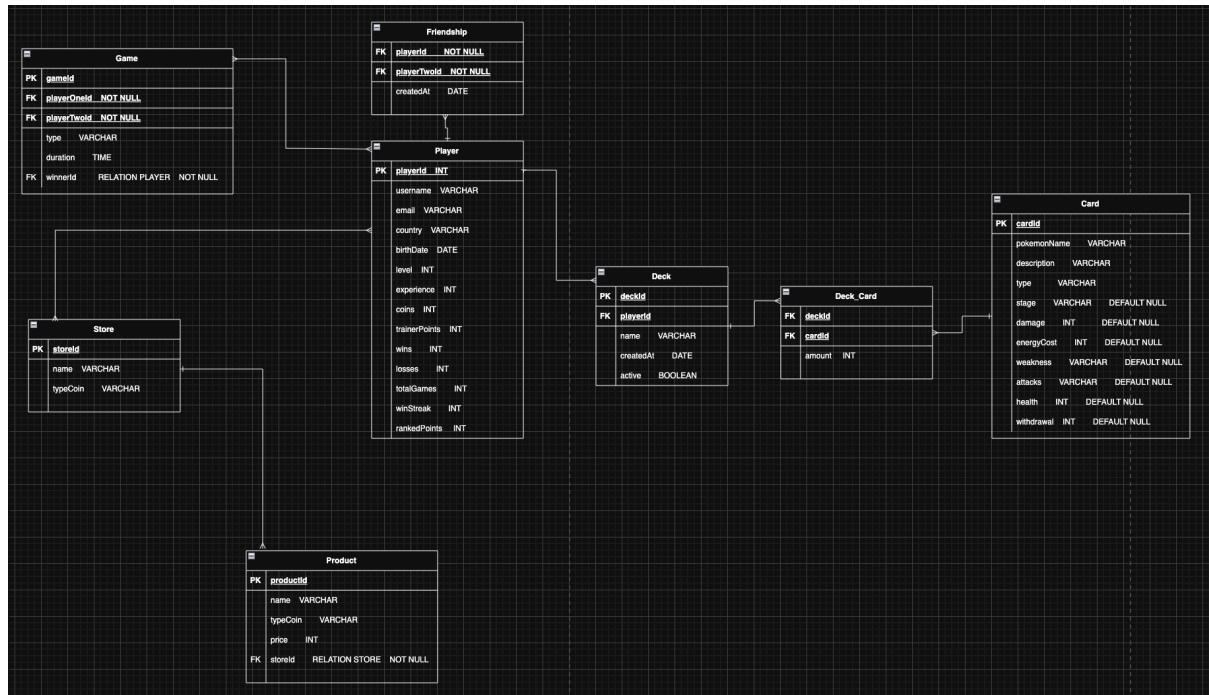
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MODELO ENTIDAD-RELACIÓN

FUNDAMENTACIÓN

First, we have a player table which includes all the fields above. It will depend on a PK which will be an INT that increases. All of the fields above will be NOT NULL because even if the player has no wins for example, there'll be a 0 to store. This table is related to:

Friendship (1, N) because a player can have many friendships.
Game (N, M) because a game has 2 players and a player can play many games.
Store (N, M) because a player can purchase in many different stores and a store can sell to many players.
Deck (1, N) because a player has many decks and a deck belongs to one player (there can be repeated decks within different players, but the information will depend on the player).

For the Friendships table we'll require 2 FKs coming from the Players table, which will be the players involved. These will be NOT NULL because there has to be a total of 2 players for a friendship to be created.

Then, we have the Game table. For this one we have a PK which is an INT that increases, we have 2 FKs coming from the Players table which will be NOT NULL

because there has to be 2 players for a Game to be created. Finally we have a winner which will be a FK from Player and it will be NOT NULL.

Afterwards we see a Deck table, which will have a PK which is an INT that increases and it will have a FK coming from Player because the decks belong to a player. It will have an "active" boolean variable because it will represent whether the deck is active or not on the player's game.

Between our Deck and Card table, we have an intermediary table called Deck_Card. This one has 2 FK's coming, one from Deck and one from Card. This one works to represent which cards belong to which decks.

Then we can find our Card table. This one has a PK which is an INT that increases. every card will have a name (represented by pokemon name variable), description and a type. The rest of the variables depend on the type of the card, this is the reason for them to have a DEFAULT NULL.

Almost at the end we have a Store table. This one has a PK INT that increases and a typeCoin, which will represent the type of coin that the store accepts and depending on that, the store. This one will be related to the Player as mentioned before and will also be related to the Product table (1, N) because one store can have many products.

Finally, we have the Product table. This one will have a PK which will be an INT that increases. It will have a FK coming from Store which will represent the store where the product is located. Every variable will be NOT NULL.