BANCO DE DADOS – Batalhas em Game of Thrones

NORMALIZAÇÃO – PASSO A PASSO

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ESQUEMA ÑN – NÃO NORMALIZADA

battles(name, year, **battle\_number**, attacker\_king, defender\_king, attacker\_1, attacker\_2, attacker\_3, attacker\_4, defender\_1, defender\_2, defender\_3, defender\_4. attacker\_outcome, battle\_type, major\_death, major\_capture, attacker\_size, defender\_size, attacker\_commander, defender\_commander, summer, location, region, note )

Esquema 1FN – 1 º FORMA NORMAL

->**attacker\_king – atributo multivalorado**

**->defender\_king – atributo multivalorado**

**->attacker\_commander – atributo multivalorado**

**->defender\_commander- atributo multivalorado**

**-> location – atributo multivalorado**

TRANSFORMAÇÃO

attacker\_king(**battle\_number, id\_king,**  attacker\_king)

defender\_king(**battle\_number, id\_king,** defender\_king)

attacker\_commander(**battle\_number, id\_commander,**  attacker\_commander)

defender\_commander(**battle\_number, id\_commander**, defender\_commander)

location(**battle\_number, id\_location,** location)

AO FINAL DA TRANSFORMAÇÃO

battles(name, year, **battle\_number**, , attacker\_1, attacker\_2, attacker\_3, attacker\_4, defender\_1, defender\_2, defender\_3, defender\_4. attacker\_outcome, battle\_type, major\_death, major\_capture, attacker\_size, defender\_size, summer, region, note )

attacker\_king(**battle\_number, id\_king,** attacker\_king)

defender\_king(**battle\_number, id\_king,**  defender\_king)

attacker\_commander(**battle\_number, id\_commander,**  attacker\_commander)

defender\_commander(**battle\_number, id\_commander**, defender\_commander)

location(**battle\_number, id\_location,** location)

ESQUEMA 2FN – 2 FORMA NORMAL

**A tabela battles já está na 2FN!**

A chave primária não é composta.

battles(name, year, **battle\_number**, , attacker\_1, attacker\_2, attacker\_3, attacker\_4, defender\_1, defender\_2, defender\_3, defender\_4. attacker\_outcome, battle\_type, major\_death, major\_capture, attacker\_size, defender\_size, summer, region, note )

Ajustes

**1FN**

attacker\_king(**battle\_number, id\_king,**  attacker\_king)

id\_king -> king\_name

**1FN**

defender\_king(**battle\_number, id\_king,** defender\_king)

id\_king -> king\_name

**1FN**

attacker\_commander(**battle\_number, id\_commander,**

attacker\_commander)

id\_commander -> commander\_name

**1FN**

defender\_commander(**battle\_number, id\_commander**, defender\_commander)

id\_commander -> commander\_name

**1FN**

location(**battle\_number, id\_location,** location)

id\_location -> location

**Transformações**

attacker\_king(**battle\_number, id\_king,**  attacker\_king)

king(**id\_king**, king\_name)

defender\_king(**battle\_number, id\_king,** defender\_king)

attacker\_commander(**battle\_number, id\_commander,**  attacker\_commander)

commander(**id\_commander,**  commander\_name )

defender\_commander(**battle\_number, id\_commander,** defender\_commander)

location(**battle\_number, id\_location,** location)

id\_location -> location

location(**id\_location,**  location)

ESQUEMA 3FN – 3 FORMA NORMAL

Não há depedências transitivas em battles, portanto já está na 3FN!

battles(name, year, **battle\_number**, , attacker\_1, attacker\_2, attacker\_3, attacker\_4, defender\_1, defender\_2, defender\_3, defender\_4. attacker\_outcome, battle\_type, major\_death, major\_capture, attacker\_size, defender\_size, summer, region, note )

**AJUSTES**

battles(name, year, **battle\_number**, , attacker\_1, attacker\_2, attacker\_3, attacker\_4, defender\_1, defender\_2, defender\_3, defender\_4. attacker\_outcome, battle\_type, major\_death, major\_capture, attacker\_size, defender\_size, summer, region, note )

region(**id\_region,** region)

king(**id\_king**, king\_name)

attacker\_king(**battle\_number, id\_king**)

defender\_king(**battle\_number, id\_king**)

commander(**id\_comander,** commander)

attacker\_commander(**battle\_number, id\_commander**)

defender\_commander(**battle\_number, id\_commander**,)

location(**id\_location**, location)

location\_battle(**battle\_number, id\_location**)

MAIS AJUSTES

region(**id\_region,** region)

location(**id\_location**, location) Verifica-se que é um atributo

opcional dentro da tabela !

location\_battle(**battle\_number, id\_location**)

location\_battle(**battle\_number, id\_**region**,**  id\_location**)**

battles(name, year, **battle\_number**, attacker\_1, attacker\_2, attacker\_3, attacker\_4, defender\_1, defender\_2, defender\_3, defender\_4. attacker\_outcome, battle\_type, major\_death, major\_capture, attacker\_size, defender\_size, summer, region, note )

Verificamos que as colunas attacker\_1, attacker\_2, attacker\_3, attacker\_4, defender\_1, defender\_2, defender\_3, defender\_4, se referem as casas de *Game of Thrones*. Portanto é o mesmo tipo de dado. **Optamos por transformar essas colunas em 3 tabelas.**

**Eliminamos os atributos opcionais!**

house(**id\_house,** house\_name)

attacker(**battle\_number**, **id\_house**)

defender(**battle\_number, id\_house**)

TABELA NORMALIZADA

battles(name, year, **battle\_number**, attacker\_outcome, battle\_type, major\_death, major\_capture, attacker\_size, defender\_size, summer, note )

king(**id\_king**, king\_name)

house(**id\_house,** house\_name)

region(**id\_region,** region)

location(**id\_location**, location)

commander(**id\_comander,** commander)

attacker\_king(**battle\_number, id\_king**)

battle\_number referencia battles

id\_king referencia king

defender\_king(**battle\_number, id\_king**)

battle\_number referencia battles

id\_king referencia king

attacker\_commander(**battle\_number, id\_commander**)

battle\_number referencia battles

id\_commander referencia commander

defender\_commander(**battle\_number, id\_commander**,)

battle\_number referencia battles

id\_commander referencia commander

location\_battle(**battle\_number, id\_region,**  id\_location)

battle\_number referencia battles

id\_region referencia region

attacker(**battle\_number**, **id\_house**)

battle\_number referencia battles

id\_house referencia house

defender(**battle\_number, id\_house**)

battle\_number referencia battles

id\_house referencia house