Royal University of Bhutan

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College of Science and Technology
Rinchending: Bhutan

DBS101
DatabaseSystemsFundamentals
(SS2024)

Practical Assignment Stage 1:DatabaseDesign

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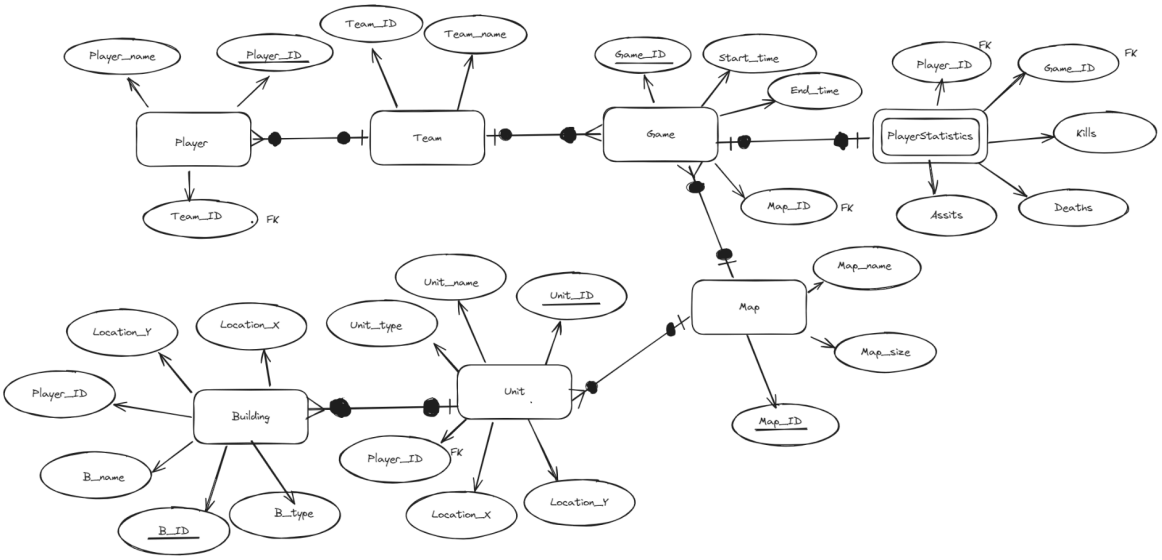
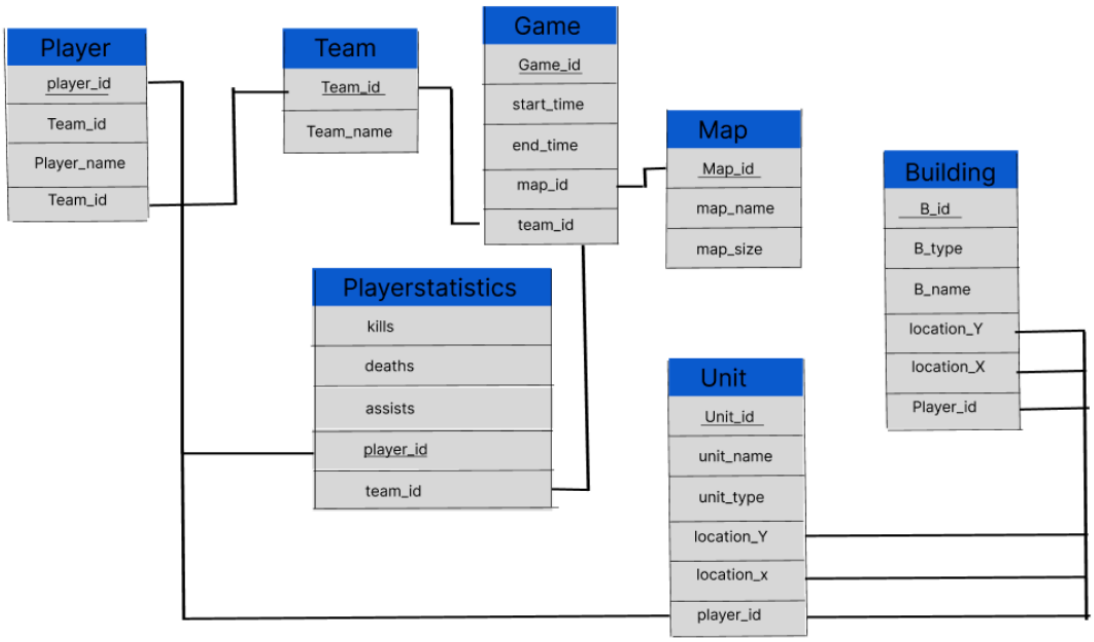
ERD for real time strategy game(Warcraft 3)



Relational Schema



Relationships:

One team has many players(one-to-many relationships between team and player)

One team belongs to one team(many-to-one relationship between players and team)

One game has many players(many-to-many relationships game and player, represented by an associative table.

One map can be played in many games(one-to-many relationships between map and games)

One player can control many units(one-to-many relationships between players and unit)

One player can own many buildings (one-to-many relationships between player and building)

Assumption for Warcraft 3 game:

1. Key features: warcraft 3 includes player interactions like combating with armies, coping with belongings and building structures to conquer warring parties. It also functions numerous game mechanisms collectively with hero gadgets, spellcasting and strategic map control.
2. Data requirements : The game wants to manipulate data related to player profiles together with player statistics, achievements and development through the campaign or multiplayer suits. Additionally, it tracks facts on item inventions along with guns,armor and magical artifacts.
3. User interactions : Players interact with the game by way of commanding gadgets, casting spells and constructing buildings through mouse and keyboard inputs. These interactions generate statistics on player moves, spot activities like battles and quests and achievements unlocked at some point of gameplay.
4. Database needs : Assuming a relational database, entities may need to consist of tables for gamers, devices,houses,gadgets,achievements and suits. Attributes may want to seize precise information for each entity which consists of participants' call, unit health , object

type and in shape outcome. Relationships among entities should represent connections like participants ownership of objects or devices below their command.

5. Justification : These assumptions are primarily based on the everyday functionality of actual-time method video games like warcraft 3, wherein player progress, in-game assets and fit consequences are crucial additives of the gaming enjoyment.

References

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