Functional Dependencies

game_ID -> title, developer, releaseDate, platform
username -> country, joinDate
run_ID -> game_ID, player_ID, category_ID, completionTime, completionDate, videoLink
category_ID -> game_ID, name, description
ranking_ID -> run_ID, rank
run_ID -> completionDate, completionTime

Relational Schema

Game:

game_ID (PK)
title
developer
releaseDate
platform

Player:

username (PK)
country
joinDate

Run:

run_ID (PK)
game_ID (FK)
player_ID (FK)
category_ID (FK)
completionTime
completionDate
videoLink

Category:

category_ID (PK)
game_ID (FK)
name
description

Ranking:

ranking_ID (PK)
run_ID (FK)
Rank

DerivedRankingInfo:

run_ID (FK, PK)
/completionDate
/completionTime

Each relation is in BCNF (Boyce-Codd Normal Form) because:

- For Game, Player, Category, and Ranking, the left-hand side of each functional dependency is a candidate key for the relation.

- For Run, run_ID is a primary key, and all other attributes are fully functionally dependent on it.

- In DerivedRankingInfo, run_ID is a primary key. The attributes /completionDate and /completionTime are derived so they would not be stored but computed as needed.