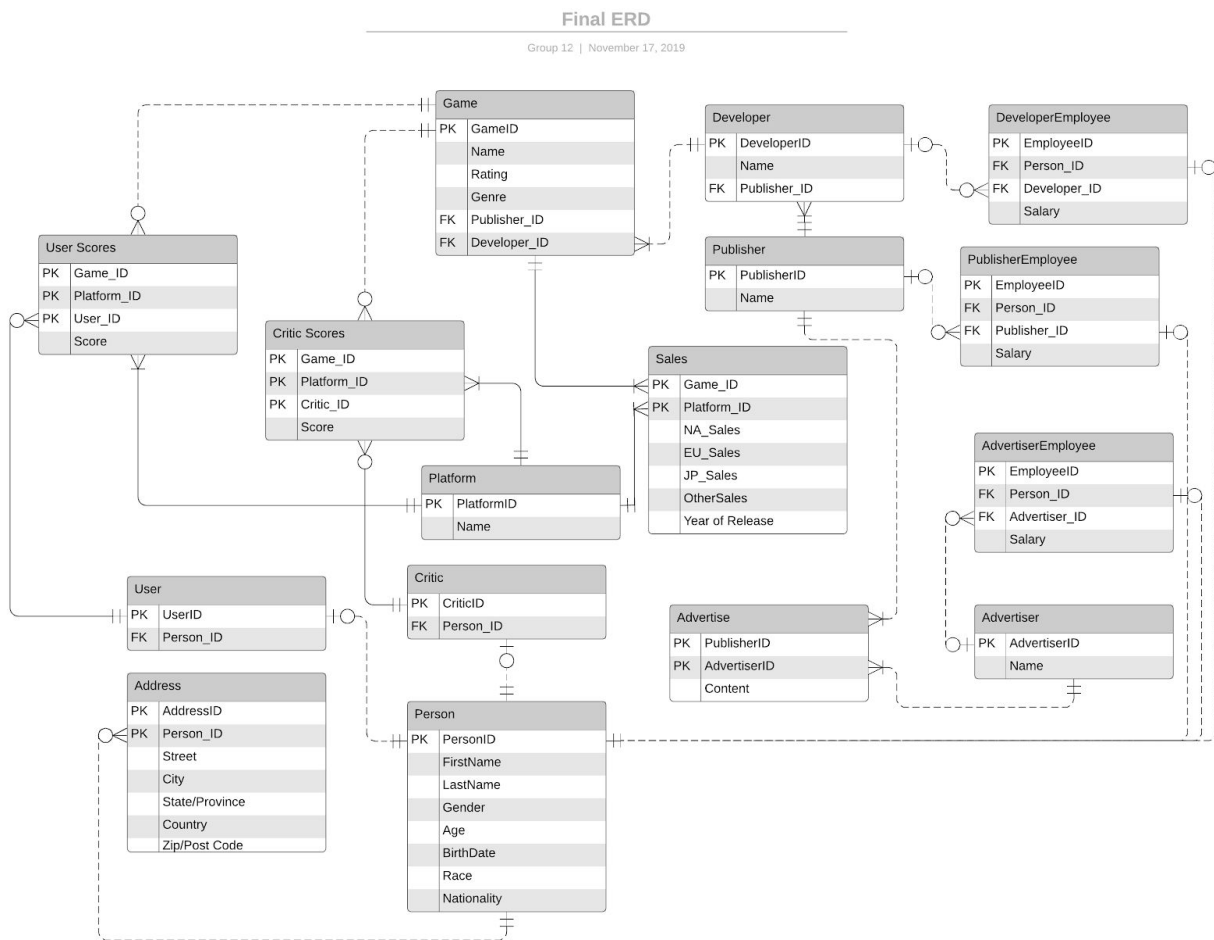# Group12 Final ERD Rubric

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Entity-Relationship Diagram

Final ERD

Group 12 | November 17, 2019

Entities:

1. Game: Stored all games' information, including game platform, year of release, popularity etc.
2. Person: Stored all persons' information, including staff in the game company and players.
3. Developer: Responsible for game development in the company.
4. Employee: Game company staff, the roles are game developer and advertiser.
5. Publisher: Corporation which is responsible for game publication.
6. Advertiser: Responsible for game advertisement in the company.
7. Platform: Platform of the game release (i.e. PC,PS4, etc.)
8. Sales: Sales from various areas of each game on different platforms (in millions)
9. Critic: Stored game critics' information.
10. Critic Scores: Scores from critics for each game on different platforms.
11. User: Stored game users' information.
12. User Scores: Scores from users for each game on different platforms.

Relationships:

13. Game : User Scores   1 : M
14. Game : Critic Scores   1 : M
15. Game : Sales   1 : M
16. Game : Developer   1 : M
17. User Scores : Platform   M : 1
18. User Scores : User   1 : 1
19. User : Person   M : 1
20. Critic Scores : Platform   M : 1
21. Critic Scores : Critic   1 : 1
22. Critic : Person   M : 1
23. Address : Person   M : 1
24. Platform : Sales   1 : M
25. Developer : Employee   1 : M
26. Developer : Publisher   1 : M

Business Statement:

This database is able to manage all video games on various platforms with its publisher and developer information, sales conditions and ratings. The purpose of the database is to maintain the data and to do further analysis on game sales, including users' and critics' score. More complex analysis and prediction can be done based on this database.

Database Design:

We have two main entities which are Game and Person.

In the Person entity, we have Employee and User(player) entities as the sub types. Each person can choose whether to have address information or not, so we mark the relationship as non-identifying. Employees in different publishers can be game developers or advertisers.

In the Game entity, we have all game information and each game is dependent on developer, each game has it's selling information on different platforms. Ratings are distributed by critics and user score.

In the following entities, Game, Developer, Platform, Person, Publisher, Advertiser, Critic, Employee and User, each of them has its own ID to be the primary key. While in the Sales entity, the sale is decided by both game and platform, so it has two primary keys, which are Game_ID and Platform_ID. So as the relationships in the Address, User Scores and Critic Scores entities.