

Project Overview

Aaron Schwartz, Max Groover, Bella Novicki, George Bohorquez

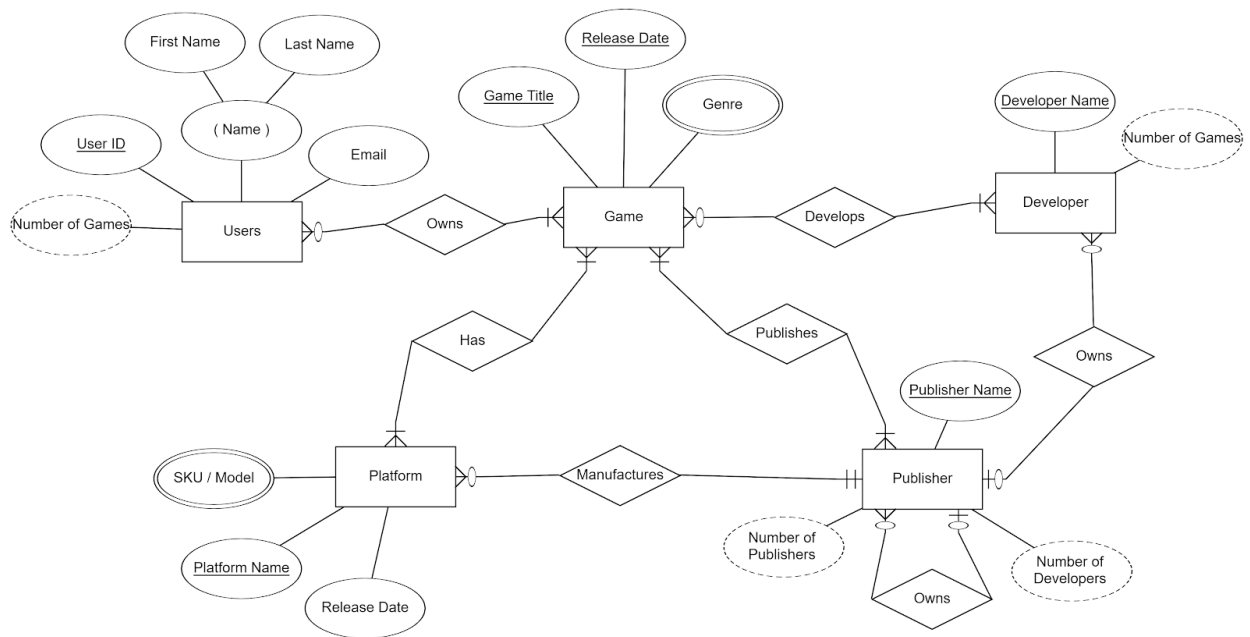
Purpose & Functionality

The purpose of this database is to keep track of pertinent information regarding video games. It serves as a repository for general video game related data that can be parsed through. This functionality also allows a user to keep track of their own personal game collection and compare it with the collections of other users. Every user, game, platform, developer, and publisher is its own entity in the database, with ties to other entities through their many attributes. These connections can be demoed by using any of the 10 queries associated with the dummy website.

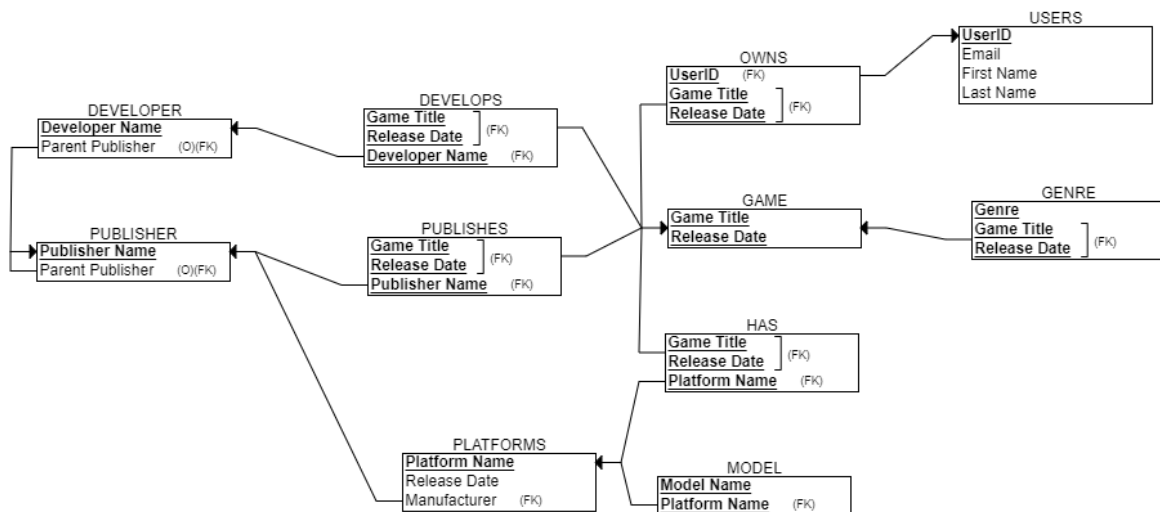
Entities and Attributes

Entities	Attributes	Description
<i>Users</i>	<ul style="list-style-type: none">● <u>User ID</u>● FName● LName● Email● Number of Games Owned (D)	<i>User</i> refers to a person that owns video games.
<i>Game</i>	<ul style="list-style-type: none">● <u>Game Title</u>● <u>Date of Release</u>● Genre (MV)	<i>Game</i> refers to a video game.
<i>Platform</i>	<ul style="list-style-type: none">● <u>Platform Name</u>● Release Date● SKU / Model (MV)	<i>Platform</i> refers to the different game systems a video game is available to be played on.
<i>Developer</i>	<ul style="list-style-type: none">● <u>Developer Name</u>● Number Games Developed (D)	<i>Developer</i> refers to a company that creates video games.
<i>Publisher</i>	<ul style="list-style-type: none">● <u>Publisher Name</u>● Number of Developers (D)● Number of Publishers (D)	<i>Publisher</i> refers to a company that publishes video games.

Final Conceptual Diagram



Final Logical ER Diagram



SQL Create Tables

CREATE TABLE Users

```
(   userID          INT                NOT NULL,
    email            VARCHAR(30)        NOT NULL,
    firstName        VARCHAR(25)        NOT NULL,
    lastName         VARCHAR(25)        NOT NULL,
    PRIMARY KEY (userID) );
```

CREATE TABLE Game

```
(   gameTitle       VARCHAR(50)        NOT NULL,
    releaseDate      DATE                NOT NULL,
    PRIMARY KEY (gameTitle, releaseDate) );
```

CREATE TABLE Genre

```
(   genre           VARCHAR(20)        NOT NULL,
    gameTitle        VARCHAR(50)        NOT NULL,
    releaseDate      DATE                NOT NULL,
    PRIMARY KEY (genre, gameTitle, releaseDate),
    FOREIGN KEY (gameTitle) REFERENCES Game(gameTitle),
    FOREIGN KEY (releaseDate) REFERENCES Game(releaseDate) );
```

CREATE TABLE Owns

```
(   userID          INT                NOT NULL,
    gameTitle        VARCHAR(50)        NOT NULL,
    releaseDate      DATE                NOT NULL,
    PRIMARY KEY (userID, gameTitle, releaseDate),
    FOREIGN KEY (gameTitle) REFERENCES Game(gameTitle),
    FOREIGN KEY (releaseDate) REFERENCES Game(releaseDate) );
```

CREATE TABLE Publisher

```
(   publisherName   VARCHAR(20)        NOT NULL,
    parentPublisher VARCHAR(20),
    PRIMARY KEY (publisherName),
    FOREIGN KEY (parentPublisher) REFERENCES Publisher(publisherName) );
```

CREATE TABLE Developer

```
(   developerName   VARCHAR(20)        NOT NULL,
    parentPublisher VARCHAR(20),
    PRIMARY KEY (developerName),
    FOREIGN KEY (parentPublisher) REFERENCES Publisher(publisherName) );
```

CREATE TABLE Develops

```
(   developerName   VARCHAR(20)        NOT NULL,
    gameTitle        VARCHAR(50)        NOT NULL,
    releaseDate      DATE                NOT NULL,
    PRIMARY KEY (developerName, gameTitle, releaseDate),
```

```
FOREIGN KEY (developerName) REFERENCES Developer(developerName),  
FOREIGN KEY (gameTitle) REFERENCES Game(gameTitle),  
FOREIGN KEY (releaseDate) REFERENCES Game(releaseDate) );
```

```
CREATE TABLE Publishes
```

```
( publisherName    VARCHAR(20)      NOT NULL,  
  gameTitle        VARCHAR(50)      NOT NULL,  
  releaseDate      DATE              NOT NULL,  
  PRIMARY KEY (publisherName, gameTitle, releaseDate),  
  FOREIGN KEY (publisherName) REFERENCES Publisher(publisherName),  
  FOREIGN KEY (gameTitle) REFERENCES Game(gameTitle),  
  FOREIGN KEY (releaseDate) REFERENCES Game(releaseDate) );
```

```
CREATE TABLE Platform
```

```
( platformName     VARCHAR(20)      NOT NULL,  
  releaseDate      DATE              NOT NULL,  
  manufacturer     VARCHAR(20)      NOT NULL,  
  PRIMARY KEY (platformName),  
  FOREIGN KEY (manufacturer) REFERENCES Publisher(publisherName) );
```

```
CREATE TABLE Model
```

```
( model            VARCHAR(20)      NOT NULL,  
  platformName     VARCHAR(20)      NOT NULL,  
  PRIMARY KEY (model, platformName),  
  FOREIGN KEY (platformName) REFERENCES Platform(platformName) );
```

```
CREATE TABLE Has
```

```
( gameTitle        VARCHAR(50)      NOT NULL,  
  releaseDate      DATE              NOT NULL,  
  platformName     VARCHAR(20)      NOT NULL,  
  PRIMARY KEY (gameTitle, releaseDate, platformName),  
  FOREIGN KEY (gameTitle) REFERENCES Game(gameTitle),  
  FOREIGN KEY (releaseDate) REFERENCES Game(releaseDate),  
  FOREIGN KEY (platformName) REFERENCES Platform(platformName) );
```