

CPSC 304 Project Cover Page

Milestone #: 2

Date: March 1, 2023

Group Number: 30

Name	Student Number	CS Alias (Userid)	Preferred E-mail Address
Helena Xu	92964121	w5e5o	hxxu2002@gmail.com
Jonah Townsend	42229864	w4j6r	jrtownsend47@gmail.com
Shaun Gao	74620345	h1u9u	sbshaun7@gmail.com

By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

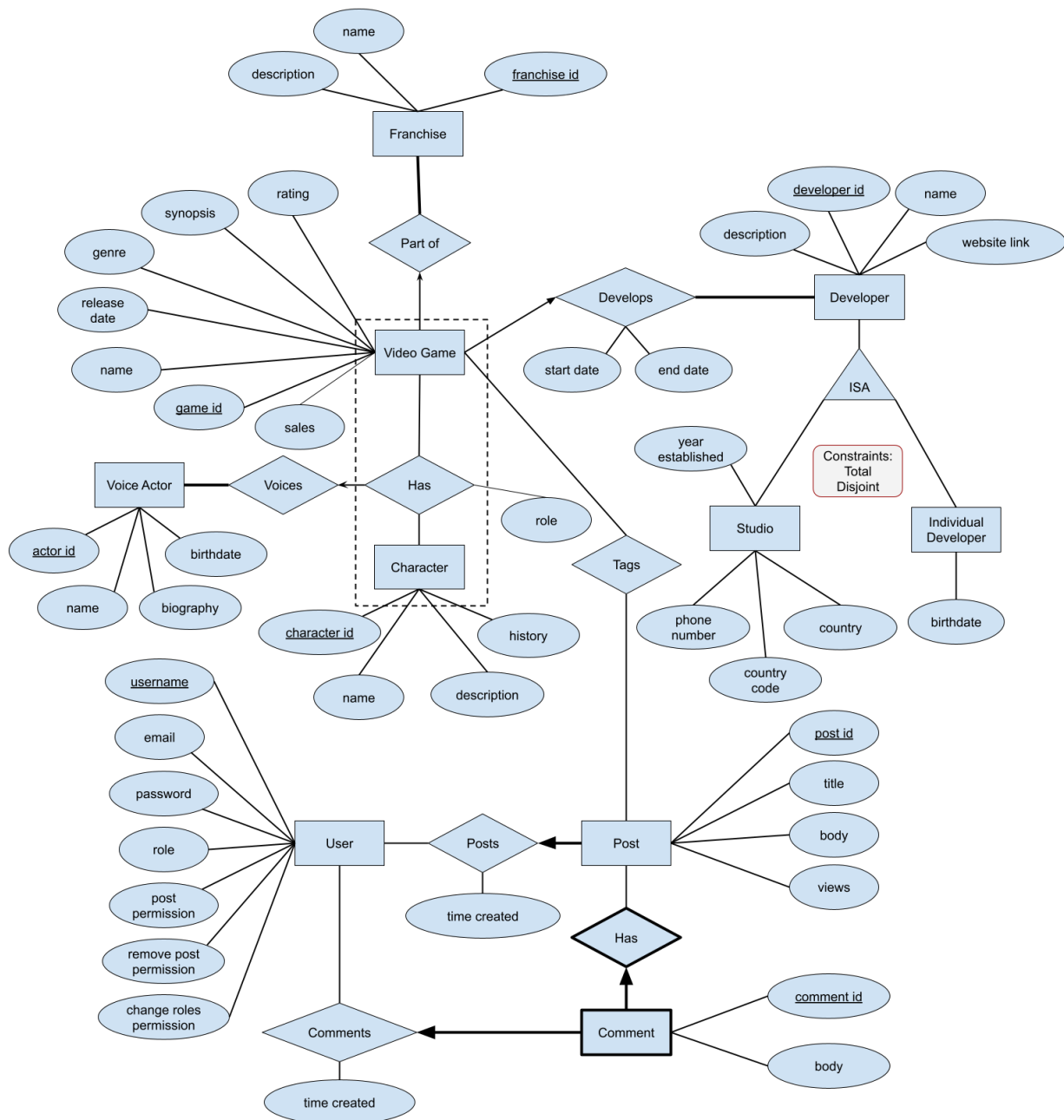
In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia.

OUR PROJECT: GameHaven

GameHaven: A wiki forum where users can document information, discuss, and chat about their favourite games!

The database models information about specific games and the people that contributed to them, uploaded by users. Many of the entity sets in the ER model represent wiki pages for things like video games, characters, developers, etc. The database also models users of the site, who can make posts linking to and discussing various games.

OUR NEW ER DIAGRAM



- We moved the *sales* attribute from the Franchise entity to be an attribute of the VideoGame entity. This is because we also want to be able to keep track of the sales for non-franchise video games as well.
- We moved the *role* attribute from the Character entity to the VideoGameHasCharacter relationship instead. This is because we realized that it is possible for a character to have a different role in a different video game, e.g., being an NPC in one v. being playable in another
- We added four new attributes to the User entity: *role*, *post permission*, *remove post permission*, and *change roles permission* to add a meaningful functional dependency
- We also added two additional attributes to the Studio entity: *phone number* and *area code* to add another functional dependency

SCHEMA

Underline indicates primary key, bold indicates foreign keys, italics indicate candidate keys

VideoGame(game_id: INT, *name*: CHAR(50), release_date: DATE, genre: CHAR(20), synopsis: TEXT, rating: CHAR(4), sales: INT, **developer_id**: INT, start_date: INT, end_date: INT, **franchise_id**: INT) [NOT NULL: name]

Franchise(franchise_id: INT, *name*: CHAR(50), description: TEXT) [NOT NULL: name]

Developer(developer_id: INT, *name*: CHAR(50), website_link: CHAR(50), description: TEXT) [NOT NULL: name, UNIQUE: website_link]

Studio(**developer_id**: INT, year_established: INT, country: CHAR(50), country_code: CHAR(4), phone_number: CHAR(15))

IndividualDeveloper(**developer_id**: INT, birthdate: DATE)

Character(character_id: INT, *name*: CHAR(50), description: TEXT, history: TEXT) [NOT NULL: name]

VoiceActor(actor_id: INT, *name*: CHAR(50), biography: TEXT, birthdate: DATE) [NOT NULL: name]

VideoGameHasCharacter(**game_id**: INT, **character_id**: INT, **actor_id**: INT, role: CHAR(20))

Post(post_id: INT, title: CHAR(50), body: TEXT, views: INT, **username**: CHAR(50), time_created: DATETIME) [NOT NULL: title, body, views, username, time_created]

PostTagsVideoGame(**post_id**: INT, **game_id**: INT)

Comment(comment_id: INT, body: TEXT, **username**: CHAR(50), time_created: DATETIME, **post_id**: INT) [NOT NULL: body, username, time_created]

User(username: CHAR(50), *email*: CHAR(50), password: CHAR(50), role: CHAR(20), post_permission: BIT, remove_post_permission: BIT, change_roles_permission: BIT) [NOT NULL: email, password, role, post_permission, remove_post_permission, change_roles_permission]

FUNCTIONAL DEPENDENCIES

Relation	Functional Dependencies
VideoGame	$\text{game_id} \rightarrow \text{name}, \text{release_date}, \text{genre}, \text{synopsis}, \text{rating}, \text{sales}, \text{developer_id}, \text{start_date}, \text{end_date}, \text{franchise_id}$ $\text{name} \rightarrow \text{game_id}, \text{release_date}, \text{genre}, \text{synopsis}, \text{rating}, \text{developer_id}, \text{start_date}, \text{end_date}, \text{franchise_id}$
Franchise	$\text{franchise_id} \rightarrow \text{name}, \text{description}$ $\text{name} \rightarrow \text{franchise_id}, \text{description}$
Developer	$\text{developer_id} \rightarrow \text{name}, \text{website_link}, \text{description}$ $\text{name} \rightarrow \text{developer_id}, \text{website_link}, \text{description}$ $\text{website_link} \rightarrow \text{name}, \text{developer_id}, \text{description}$
Studio	$\text{developer_id} \rightarrow \text{year_established}, \text{country}, \text{country_code}, \text{phone_numbe}$ $\text{country} \rightarrow \text{country_code}$
IndividualDeveloper	$\text{developer_id} \rightarrow \text{birthdate}$
Character	$\text{character_id} \rightarrow \text{name}, \text{description}, \text{history}$
VideoGameHasCharacter	$\text{game_id}, \text{character_id} \rightarrow \text{actor_id}, \text{role}$
VoiceActor	$\text{actor_id} \rightarrow \text{name}, \text{biography}, \text{birthdate}$
Post	$\text{post_id} \rightarrow \text{title}, \text{body}, \text{views}, \text{time_created}, \text{user_id}$
Comment	$\text{comment_id}, \text{post_id} \rightarrow \text{body}, \text{username}, \text{time_created}$
User	$\text{username} \rightarrow \text{email}, \text{password}, \text{role}, \text{post_permission}, \text{remove_post_permission}, \text{change_roles_permission}$ $\text{email} \rightarrow \text{username}, \text{password}, \text{role}, \text{post_permission}, \text{remove_post_permission}, \text{change_roles_permission}$ $\text{role} \rightarrow \text{post_permission}, \text{remove_post_permission}, \text{change_roles_permission}$

NORMALIZATION

In the Studio relation, $\text{country} \rightarrow \text{country_code}$ is violating BCNF since country is not a superkey for Studio. Similarly, in the User relation, $\text{role} \rightarrow \text{post_permission}$, $\text{remove_post_permission}$, $\text{change_roles_permission}$ is violating BCNF since role is not a superkey for User. All other FDs are for PKs and CKs and are not violating BCNF. We then decompose our schema on the 2 violating FDs to achieve BCNF as follows:

Underline indicates primary key, bold indicates **foreign keys**, italics indicate *candidate keys*.

VideoGame(game_id: INT, *name*: CHAR(50), release_date: DATE, genre: CHAR(20), synopsis: TEXT, rating: CHAR(4), sales: INT, **developer_id**: INT, start_date: INT, end_date: INT, **franchise_id**: INT) [NOT NULL: name]

Franchise(franchise_id: INT, *name*: CHAR(50), description: TEXT) [NOT NULL: name]

Developer(developer_id: INT, *name*: CHAR(50), website_link: CHAR(50), description: TEXT) [NOT NULL: name, UNIQUE: website_link]

Studio(**developer_id**: INT, year_established: INT, **country**: CHAR(50), phone_number: CHAR(15))

Country(country: CHAR(50), country_code: CHAR(4)) [NOT NULL: country_code]

IndividualDeveloper(developer_id: INT, birthdate: DATE)

Character(character_id: INT, *name*: CHAR(50), description: TEXT, history: TEXT) [NOT NULL: name, role]

VoiceActor(actor_id: INT, *name*: CHAR(50), biography: TEXT, birthdate: DATE) [NOT NULL: name]

VideoGameHasCharacter(game_id: INT, character_id: INT, **actor_id**: INT, role: CHAR(20))

Post(post_id: INT, title: CHAR(50), body: TEXT, views: INT, **username**: CHAR(50), time_created: DATETIME) [NOT NULL: title, body, views, username, time_created]

PostTagsVideoGame(post_id: INT, game_id: INT)

Comment(comment_id: INT, body: TEXT, **username**: CHAR(50), time_created: DATETIME, **post_id**: INT) [NOT NULL: body, username, time_created]

User(username: CHAR(50), email: CHAR(50), password: CHAR(50), **role**: CHAR(20)) [NOT NULL: email, password, role]

Role(role: CHAR(20), post_permission: BIT, remove_post_permission: BIT, change_roles_permission: BIT) [NOT NULL: post_permission, remove_post_permission, change_roles_permission]

SQL DDL (Validated on [SQL Fiddle](#))

```
CREATE TABLE Role(
  role CHAR(20),
  post_permission BIT NOT NULL,
  remove_post_permission BIT NOT NULL,
  change_roles_permission BIT NOT NULL,
  PRIMARY KEY(role)
);
```

```
CREATE TABLE User(
  username CHAR(50),
  email CHAR(50) UNIQUE NOT NULL,
  password CHAR(50) NOT NULL,
  role CHAR(20) NOT NULL,
  PRIMARY KEY(username),
  FOREIGN KEY(role) REFERENCES Role(role)
);
```

```
CREATE TABLE Country(
  country CHAR(50),
  country_code CHAR(4) NOT NULL,
  PRIMARY KEY (country)
);
```

```
CREATE TABLE Developer(
  developer_id INT,
  name CHAR(50) UNIQUE NOT NULL,
  website_link CHAR(50) UNIQUE,
  description TEXT,
  PRIMARY KEY (developer_id)
);
```

```
CREATE TABLE Franchise(
  franchise_id INT,
  name CHAR(50) UNIQUE NOT NULL,
  description TEXT,
  PRIMARY KEY (franchise_id)
);
```

```
CREATE TABLE Studio(
  developer_id INT,
  year_established INT,
  country CHAR(50),
  phone_number CHAR(15),
  PRIMARY KEY (developer_id),
  FOREIGN KEY (developer_id) REFERENCES Developer(developer_id),
  FOREIGN KEY (country) REFERENCES Country(country)
);
```

```
CREATE TABLE IndividualDeveloper(
    developer_id INT,
    birthdate DATE,
    PRIMARY KEY (developer_id),
    FOREIGN KEY (developer_id) REFERENCES Developer(developer_id)
);
```

```
CREATE TABLE `Character`(
    character_id INT,
    name CHAR(50) NOT NULL,
    description TEXT,
    history TEXT,
    PRIMARY KEY (character_id)
);
```

```
CREATE TABLE VoiceActor(
    actor_id INT,
    name CHAR(50) NOT NULL,
    biography TEXT,
    birthdate DATE,
    PRIMARY KEY (actor_id)
);
```

```
CREATE TABLE VideoGame(
    game_id INT,
    name CHAR(50) UNIQUE NOT NULL,
    release_date DATE,
    genre CHAR(50),
    synopsis TEXT,
    rating CHAR(4),
    sales INT,
    developer_id INT,
    start_date INT,
    end_date INT,
    franchise_id INT,
    PRIMARY KEY (game_id),
    FOREIGN KEY (developer_id) REFERENCES Developer(developer_id),
    FOREIGN KEY (franchise_id) REFERENCES Franchise(franchise_id)
);
```

```
CREATE TABLE VideoGameHasCharacter(
    game_id INT,
    character_id INT,
    actor_id INT,
    role CHAR(20) NOT NULL,
    PRIMARY KEY (game_id, character_id),
    FOREIGN KEY (game_id) REFERENCES VideoGame(game_id),
    FOREIGN KEY (character_id) REFERENCES `Character`(character_id),
    FOREIGN KEY (actor_id) REFERENCES VoiceActor(actor_id)
);
```



```
CREATE TABLE Post(
    post_id INT,
    title CHAR(50) NOT NULL,
    body TEXT NOT NULL,
    views INT NOT NULL,
    username CHAR(50) NOT NULL,
    time_created DATETIME NOT NULL,
    PRIMARY KEY(post_id),
    FOREIGN KEY(username) REFERENCES User(username) ON UPDATE CASCADE
);
```

```
CREATE TABLE PostTagsVideoGame(
    post_id INT,
    game_id INT,
    PRIMARY KEY(post_id, game_id),
    FOREIGN KEY(post_id) REFERENCES Post(post_id),
    FOREIGN KEY(game_id) REFERENCES VideoGame(game_id)
);
```

```
CREATE TABLE Comment(
    comment_id INT,
    body TEXT NOT NULL,
    username CHAR(50) NOT NULL,
    time_created DATETIME NOT NULL,
    post_id INT,
    PRIMARY KEY(comment_id, post_id),
    FOREIGN KEY(username) REFERENCES User(username) ON UPDATE CASCADE,
    FOREIGN KEY(post_id) REFERENCES Post(post_id) ON DELETE CASCADE
);
```

INSERTING TUPLES (Validated on <https://extendsclass.com/sql-validator.html> & <https://paiza.io/>)

INSERT INTO **Developer** (developer_id, name, website_link, description)

VALUES

(1, 'House House', 'househou.se', 'House House is an independent video game developer based in Melbourne, Australia.'),

(2, 'Game Freak', 'www.gamefreak.co.jp', 'Game Freak Co., Ltd. is a Japanese video game developer, best known as the primary developer of the mainline Pokémon series of role-playing video games published by Nintendo and The Pokémon Company.'),

(3, 'Mobius Digital', 'www.mobiusdigitalgames.com', NULL),

(4, 'Nintendo', 'nintendo.com', 'Nintendo Co., Ltd. is a Japanese multinational video game company headquartered in Kyoto. It develops and releases both video games and video game consoles.'),

(5, 'Phil Fish', NULL, 'Phil Fish is a French Canadian former indie game designer best known for his work on the 2012 platform game Fez.'),

(6, 'Jonathan Blow', 'http://number-none.com/blow', 'Jonathan Blow is an American video game designer and programmer.'),

(7, 'Edmund McMillen', NULL, 'Edmund McMillen is an American video game designer and artist known for his Flash game visual style.'),

(8, 'Square Enix', 'square-enix.com', 'Square Enix Holdings Co., Ltd. is a Japanese multinational holding company, production enterprise and entertainment conglomerate, best known for its Final Fantasy, Dragon Quest, Star Ocean and Kingdom Hearts role-playing video game franchises, among numerous others.'),

(9, 'Eric Barone', NULL, 'Eric Barone, also known by his alias ConcernedApe, is an American video game developer, video game designer, artist, composer, and musician.'),

(10, 'Lucas Pope', 'dukope.com', 'Lucas Pope is an American video game designer. He is best known for experimental indie games, notably Papers, Please and Return of the Obra Dinn.'),

(11, 'Rockstar North', 'rockstarnorth.com', 'Rockstar North Limited (formerly DMA Design Limited) is a British video game development company and a studio of Rockstar Games based in Edinburgh.'),

(12, 'Capcom', 'www.capcom.com', 'Capcom Co., Ltd. is a Japanese video game developer and publisher.');

INSERT INTO **Country** (country, country_code)

VALUES

('United States', '1'),

('Canada', '1'),

('Australia', '61'),

('Japan', '81'),

('United Kingdom', '44');

```
INSERT INTO Studio (developer_id, year_established, country, phone_number)
VALUES
```

```
(1, 2014, 'Australia', NULL),
(2, 1989, 'Japan', '(334) 674-387'),
(3, 2013, 'United States', NULL),
(4, 1889, 'Japan', '(800) 255-3700'),
(8, 2003, 'Japan', NULL),
(11, 1987, 'United Kingdom', NULL),
(12, 1979, 'Japan', NULL);
```

```
INSERT INTO IndividualDeveloper (developer_id, birthdate)
VALUES
```

```
(5, '1984-11-01'),
(6, '1971-01-01'),
(7, '1980-03-02'),
(9, '1987-12-03'),
(10, NULL);
```

```
INSERT INTO Franchise (franchise_id, name, description)
VALUES
```

```
(1, 'Pokémon', 'The franchise was created by Satoshi Tajiri in 1996, and is centred around fictional creatures called "Pokémon"'),
(2, 'Grand Theft Auto', 'Grand Theft Auto (GTA) is a series of action-adventure games.'),
(3, 'Super Mario', 'The Super Mario games are set primarily in the fictional Mushroom Kingdom, typically with Mario as the player character.'),
(4, 'The Legend of Zelda', 'The series centres on the various incarnations of Link, a courageous young man of the elf-like Hylian race; and Princess Zelda, a magical princess who is the mortal reincarnation of the goddess Hylia'),
(5, 'Kingdom Hearts', 'The series centers on the main character, Sora, and his journey and experiences with various Disney and Pixar characters, as well as some from Square Enix properties.');
```

INSERT INTO **VideoGame** (game_id, name, release_date, genre, synopsis, rating, sales, developer_id, start_date, end_date, franchise_id)

VALUES

(1, 'Untitled Goose Game', '2019-09-20', 'Puzzle', 'Players control a goose who bothers the inhabitants of an English village.', 'E', 1000000, 1, NULL, 2019, NULL),
(2, 'Pokémon Red and Blue', '1998-09-28', 'Role-playing', 'The player controls the protagonist from an overhead perspective and navigates him throughout the fictional region of Kanto in a quest to master Pokémon battling.', 'E', 31380000, 2, 1990, 1998, 1),
(3, 'Outer Wilds', '2019-05-28', 'Action-adventure', 'Named Game of the Year 2019 by Giant Bomb, Polygon, Eurogamer, and The Guardian, Outer Wilds is a critically-acclaimed and award-winning open world mystery about a solar system trapped in an endless time loop.', 'E10+', 4000000, 3, 2012, 2021, NULL),
(4, 'Super Mario Galaxy', '2007-11-01', 'Platform', 'As Mario, the player embarks on a quest to rescue Princess Peach, save the universe from Bowser, and collect 120 Power Stars, after which the player can play the game as Luigi for a more difficult experience.', 'E', 12800000, 4, 2004, 2007, 3),
(5, 'Fez', '2012-04-13', 'Puzzle-platform', 'The player-character Gomez receives a fez that reveals his two-dimensional (2D) world to be one of four sides of a three-dimensional (3D) world.', 'E', 1000000, 5, 2007, 2012, NULL),
(6, 'The Witness', '2016-01-16', 'Puzzle', 'The player progresses by solving puzzles, which are based on interactions with grids presented on panels around the island or paths hidden within the environment.', 'E', 100000, 6, 2008, 2016, NULL),
(7, 'Super Meat Boy', '2010-10-20', 'Platform', 'The player controls Meat Boy, a red, cube-shaped character, as he attempts to rescue his girlfriend, Bandage Girl, from the game\'s antagonist Dr. Fetus.', 'T', 1000000, 7, 2008, 2010, NULL),
(8, 'The Legend of Zelda: Breath of the Wild', '2017-03-03', 'Action-adventure', 'The player controls an amnesiac Link, who awakens from a hundred-year slumber, and attempts to regain his memories, save princess Zelda and prevent the further destruction of Hyrule by Calamity Ganon.', 'E10+', 29000000, 4, NULL, 2017, 4),
(9, 'Kingdom Hearts III', '2019-01-25', 'Action role-playing', 'Kingdom Hearts III is the twelfth installment in the Kingdom Hearts series, and serves as a conclusion of the "Dark Seeker Saga" story arc that began with the original game.', 'E10+', 6700000, 8, NULL, 2018, 5),
(10, 'Stardew Valley', '2016-02-26', 'Simulation', 'Players take the role of a character who inherits their deceased grandfather\'s dilapidated farm in a place known as Stardew Valley.', 'E10+', 20000000, 9, 2011, 2021, NULL),
(11, 'Papers, Please', '2013-08-08', 'Puzzle', 'As an immigration officer, the player must review each immigrant and return citizens\' passports and other supporting paperwork against an ever-growing list of rules using a number of tools and guides.', 'M', 1800000, 10, 2010, 2014, NULL),
(12, 'Braid', '2008-08-06', 'Puzzle-platform', 'Braid is a puzzle-platformer, drawn in a painterly style, where you can manipulate the flow of time in strange and unusual ways. From a house in the city, journey to a series of worlds and solve puzzles to rescue an abducted princess.', 'E10+', NULL, 6, 2004, 2010, NULL),

(13, 'Grand Theft Auto V', '2013-09-17', 'Action-adventure', 'Set within the fictional state of San Andreas, based on Southern California, the single-player story follows three protagonists—retired bank robber Michael De Santa, street gangster Franklin Clinton, and drug dealer and gunrunner Trevor Philips—and their attempts to commit heists while under pressure from a corrupt government agency and powerful criminals.', 'M', 175000000, 11, 2008, 2022, 2),

(14, 'Super Mario Bros.', '1985-09-13', 'Platform', 'Players control Mario, or his brother Luigi in the multiplayer mode, as they traverse the Mushroom Kingdom to rescue Princess Toadstool from King Koopa (later named Bowser).', 'E', 40240000, 4, NULL, 1987, 3),

(15, 'The Legend of Zelda: The Minish Cap', '2004-11-04', 'Action-adventure', 'The Minish Cap continues the story of the Four Sword, a weapon introduced in Four Swords and Four Swords Adventures. The game retains many elements common to previous Zelda games, especially top-down predecessors such as A Link to the Past, and includes new features and mechanics.', 'E', NULL, 12, NULL, 2005, 4),

(16, 'Return of the Obra Dinn', '2018-10-18', 'Adventure', 'Set in 1807, the player assumes the role of insurance inspector for the East India Company. The Obra Dinn, a merchant ship missing for five years, has reappeared off the coast of England with no one alive aboard. The player is dispatched to the ghost ship to perform an appraisal, reconstruct the events of the voyage, and determine the fates of all sixty souls aboard, providing a cause of death for those deceased or a probable current location for those presumed living.', 'M', NULL, 10, NULL, 2020, NULL),

(17, 'Kentucky Route Zero', '2020-01-28', 'Point-and-click adventure', 'Kentucky Route Zero follows the narrative of a truck driver named Conway and the strange people he meets as he tries to cross the mysterious Route Zero in Kentucky to make a final delivery for the antiques company for which he works.', 'T', NULL, NULL, NULL, NULL, NULL);

INSERT INTO **VoiceActor** (actor_id, name, biography, birthdate)
VALUES

(1, 'Kengo Takanashi', 'Kengo Takanashi is a Japanese voice actor, affiliated with Arts Vision.', '1986-06-12'),

(2, 'Charles Martinet', 'Charles Martinet is an American actor and voice actor, known for his portrayal of both Mario and Luigi in the Super Mario video game series since 1992.', '1955-09-17'),

(3, 'Patricia Summersett', 'Patricia Summersett is a Canadian actress, best known for voicing Princess Zelda in The Legend of Zelda: Breath of the Wild and Hyrule Warriors: Age of Calamity.', '1983-03-15'),

(4, 'Haley Joel Osment', 'Haley Joel Osment is an American actor and voice actor.', '1988-04-10'),

(5, 'David Gallagher', 'David Lee Gallagher is an American actor and former model.', '1985-02-09');

```
INSERT INTO `Character` (character_id, name, description, history)
VALUES
```

```
(1, 'Link', 'Link is the protagonist of Nintendo\'s video game franchise The Legend of Zelda. He was created by Japanese video game designer Shigeru Miyamoto.', 'Link is the soul of a legendary hero that throughout history is reincarnated within a seemingly ordinary boy or man when the need arises for a new warrior to defeat the forces of evil.'),
```

```
(2, 'Mario', 'Mario is the title character of the video game franchise of the same name and the mascot of Japanese video game company Nintendo.', 'Mario is depicted as a portly plumber who lives in the fictional land of the Mushroom Kingdom with Luigi, his younger, taller brother.'),
```

```
(3, 'Zelda', 'Zelda is a princess and member of the royal family of Hyrule. She is typically depicted with blonde or brown hair and blue eyes and wears a royal dress, tiara and jewellery.', 'In many games, Zelda is captured by the antagonist Ganon, necessitating Link to come to her rescue. In several games she is one of the Sages or Champions whose heroism is essential to defeating Ganon; in others, like Ocarina of Time and The Wind Waker, she adopts alternative personas to take a more active role in the story. In Skyward Sword, she is established as the mortal reincarnation of the goddess Hylia, which gives her incarnations a range of magical powers.'),
```

```
(4, 'Sora', 'Sora is the main protagonist and main playable character in most of the Kingdom Hearts series.', 'He is a Keyblade wielder from the Destiny Islands where he, along with his childhood friends Riku and Kairi, dreamed of venturing away to find out what lies beyond their home.'),
```

```
(5, 'Red', 'Red is the canon name of the protagonist of the Generation I games and is a Pokémon Trainer from Pallet Town, Kanto.', 'Red is known throughout the Pokémon world as the Champion from Pallet Town, as well as a living legend for his defeat of Team Rocket in Kanto during his quest.'),
```

```
(6, 'Riku', 'Riku is a calm, cool, collected teenager who is not afraid to push the boundaries. He is tall and muscular with pale skin, bright blue-green eyes and silver hair.', 'Riku is introduced as a teenager who wishes to visit other worlds with his friends Sora and Kairi. After a way to other worlds is opened, Riku meets the evil fairy Maleficent who pits him against Sora, leading to Riku falling to darkness and ultimately being possessed by Ansem, Seeker of Darkness. Riku is freed thanks to Sora and returns as a protagonist in following games.');
```

```
INSERT INTO VideoGameHasCharacter (game_id, character_id, actor_id, role)
VALUES
```

```
(4, 2, 2, 'Playable'),
```

```
(8, 1, 1, 'Playable'),
```

```
(8, 3, 3, 'Supporting'),
```

```
(9, 4, 4, 'Playable'),
```

```
(2, 5, NULL, 'Playable'),
```

```
(9, 6, 5, 'Playable');
```

```
INSERT INTO PostTagsVideoGame
VALUES
```

```
(1, 2),
```

```
(2, 1),
```

```
(3, 3),
```

```
(4, 5),
```

```
(4, 4);
```

```
INSERT INTO Post (post_id, title, body, views, username, time_created)
VALUES
```

```
(1, 'Review of the game', 'I played the game for 50 years since I was 7-year old in 2001, I
really enjoyed the game. Highly recommended!', 17, 'andy613', '2021-01-25 13:11:44'),
(2, 'Looking for some advices', 'Hello I am new to the game, need some advices!', 111,
'andy613', '2023-02-21 11:34:21'),
(3, 'Anyone else had this bug?', 'The game just crashed for no reason', 5, 'allend', '2023-02-21
11:41:56'),
(4, 'My favorite video game character', 'I just wanted to share my love for my favorite video
game character.', 15, 'john', '2023-02-22 23:01:33'),
(5, ' Video game blog!', 'Hey everyone, I decided to have a blog for myself, i'll post updates
daily, please follow!', 8, 'andy613', '2023-02-25 19:59:12');
```

```
INSERT INTO Comment (comment_id, body, username, time_created, post_id)
VALUES
```

```
(1, 'great game!', 'andy613', '2023-02-25 12:34:56', 1),
(2, 'really enjoyed playing', 'jk222', '2023-02-24 18:27:39', 2),
(3, 'add me: y89019', 'random', '2023-02-23 09:15:22', 1),
(4, 'the game is classic, everyone should give it try!', 'jk222', '2023-02-22 21:45:33', 1),
(5, 'lol the game is so badly designed', 'allend', '2023-02-21 15:08:47', 3);
```

```
INSERT INTO User (username, email, password, role)
VALUES
```

```
('andy613', 'andy6138213@gmail.com', 'UIQHE@3h8@JQO_{@', 'admin'),
('john', 'johnkkkkkm@gmail.com', 'absoiqjwk139', 'member'),
('jk222', 'jk22201@gmail.com', 'password3838', 'sub_admin'),
('random', 'sbshaun2019@gmail.com', '92109211k', 'viewer'),
('allend', '631938@gmail.com', 'securePassword', 'member');
```

```
INSERT INTO Role (role, post_permission, remove_post_permission,
change_roles_permission)
VALUES
```

```
('developer', 1, 1, 1),
('admin', 1, 1, 1),
('sub_admin', 1, 1, 0),
('member', 1, 0, 0),
('banned', 0, 0, 0);
```