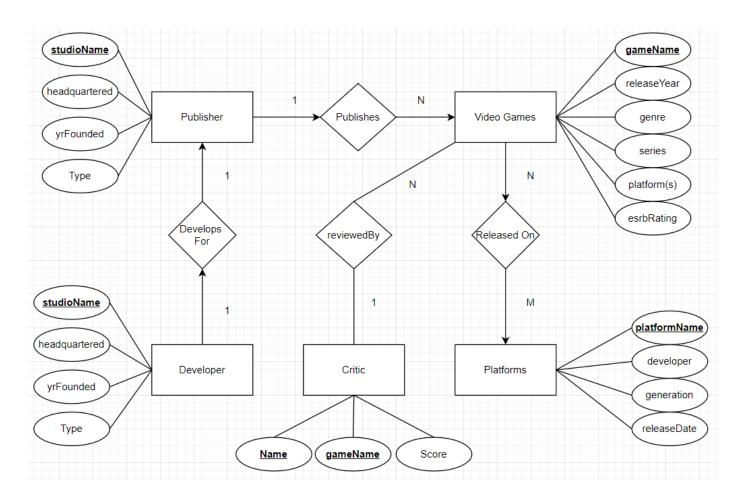
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Comp3421 HW 4

Diagram:



- Developer (<u>devStudioName</u>, headquartered, yrFounded, Type)
- Publisher (**pubStudioName**, headquartered, yrFounded, Type)
- VideoGames (gameName, releaseYear, genre, series, platform(s), esrbRating)
- Platforms (platformName, developer, generation, releaseDate)
- Critic (Name, gameName, score)
- DevelopsFor (<u>devStudioName</u>, <u>pubStudioName</u>)
- Publishes (<u>pubStudioName, gameName</u>)
- ReleasedOn (gameName, platformName)

Python Code to Generate Data for Tables

```
f'{random.choice(platforms)}, {random.choice(esrbRating)}\n'
    videoGameData.write(gamestring)
videoGameData.close()
platformsData = open('platformsData.txt', 'w')
platforms = ['Playstation 5', 'Xbox Series X', 'Nintendo Switch', 'Playstation 4', 'Nintendo 3DS', 'Xbox One',
platDev = ['Sony', 'Microsoft', 'Nintendo', 'Sony', 'Nintendo', 'Microsoft', 'Sony', 'Nintendo', 'Sony', 'Microsoft',
generation = ['9th', '9th', '8th', '8th', '8th', '8th', '8th', '8th', '7th', '7th', '7th', '7th', '7th', '6th', '6th',
releaseDate = [2020, 2020, 2017, 2013, 2011, 2013, 2012, 2012, 2006, 2005, 2004, 2005, 2006, 2000, 2001, 2001,
platformsCount = len(platforms)
```

```
#creates_developsForData
developsForData = open('developsForData.txt', 'w')

for i in range(devStudioCount):
    developsForString = f'{devStudioName[i]}, {pubStudioName[i]}\n'
    developsForData.write(developsForString)
developsForData.close()

# publishes data
publishesData = open('publishesData.txt', 'w')

for i in range(gameCount):
    publishesString = f'{random.choice(pubStudioName)}, {gameName[i]}\n'
    publishesData.write(publishesString)
publishesData.close()

#releasedOnData
releasedOnData = open('releasedOnData.txt', 'w')

for i in range(gameCount):
    releasedOnString = f'{gameName[i]}, {random.choice(platforms)}\n'
    releasedOnData.write(releasedOnString)
    releasedOnData.vrite(releasedOnString)
```

SQL Code to Load Data

```
set global local_infile=true;

drop database if exists videoGames;
show databases;
create database videoGames;
show databases;
use videoGames;

drop table if exists Developer;
drop table if exists Publisher;
drop table if exists VideoGames;
drop table if exists Platforms;
drop table if exists Critic;
drop table if exists developsFor;
drop table if exists publishes;
drop table if exists releasedOn;
```

create table Developer(devStudioName varchar(50) primary key, headquartered varchar(20) not null, yrFounded int not null, type varchar(20) not null);

create table Publisher(pubStudioName varchar(50) primary key, headquartered varchar(20) not null, yrFounded int not null, type varchar(20) not null);

create table VideoGames(gameName varchar(50) primary key, releaseYear int not null, genre varchar(50), series varchar(20), platform varchar(50) not null, esrbRating varchar(20)); create table Platforms(platformName varchar(50) primary key, developer varchar(50) not null, generation varchar(50) not null, releaseDate int not null);

```
create table Critic(name varchar(50), gameName varchar(50), score int, Primary key(name,
gameName));
create table developsFor(devStudioName varchar(50), pubStudioName varchar(50), Primary
key(devStudioName, pubStudioName));
create table publishes(pubStudioName varchar(50), gameName varchar(50), Primary
key(pubStudioName, gameName));
create table releasedOn(gameName varchar(50), platformName varchar(50), Primary key(gameName,
platformName));
show tables;
describe developer;
describe publisher;
describe videogames;
describe platforms;
describe critic;
describe developsFor;
describe publishes;
describe releasedOn;
load data local infile
'C:/Users/rainb/Desktop/scripts/COMP3421/developerData.txt' into table developer
  fields terminated by ','
  lines terminated by '\r\n';
load data local infile
'C:/Users/rainb/Desktop/scripts/COMP3421/publisherData.txt' into table publisher
  fields terminated by ','
  lines terminated by '\r\n';
load data local infile
'C:/Users/rainb/Desktop/scripts/COMP3421/videoGamesData.txt' into table videoGames
  fields terminated by ','
  lines terminated by '\r\n';
load data local infile
'C:/Users/rainb/Desktop/scripts/COMP3421/platformsData.txt' into table platforms
  fields terminated by ','
  lines terminated by '\r\n';
load data local infile
'C:/Users/rainb/Desktop/scripts/COMP3421/criticData.txt' into table critic
  fields terminated by ','
  lines terminated by '\r\n';
```

```
load data local infile
'C:/Users/rainb/Desktop/scripts/COMP3421/developsForData.txt' into table developsFor
  fields terminated by ','
  lines terminated by \r \n';
load data local infile
'C:/Users/rainb/Desktop/scripts/COMP3421/publishesData.txt' into table publishes
  fields terminated by ','
  lines terminated by '\r\n';
load data local infile
'C:/Users/rainb/Desktop/scripts/COMP3421/releasedOnData.txt' into table publishes
  fields terminated by ','
  lines terminated by '\r\n';
select count(*) from developer;
select count(*) from publisher;
select count(*) from videoGames;
select count(*) from platforms;
select count(*) from critic;
select count(*) from developsFor;
select count(*) from publishes;
select count(*) from releasedOn;
select * from developer limit 9;
select * from publisher limit 9;
select * from videoGames limit 9;
select * from platforms limit 9;
select * from critic limit 9;
select * from developsFor limit 9;
select * from publishes limit 9;
select * from releasedOn limit 9;
```

Screenshots of Database:

```
sql> use videoG
tabase changed
 rsql> drop table if exists Developer;
uery OK, 0 rows affected, 1 warning (0.00 sec)
 ysql> drop table if exists Publisher;
uery OK, 0 rows affected, 1 warning (0.00 sec)
 ysql> drop table if exists VideoGames;
uery OK, 0 rows affected, 1 warning (0.00 sec)
 ysql> drop table if exists Platforms;
uery OK, 0 rows affected, 1 warning (0.00 sec)
 ysql> drop table if exists Critic;
uery OK, 0 rows affected, 1 warning (0.00 sec)
 rsql> drop table if exists developsFor;
uery OK, 0 rows affected, 1 warning (0.00 sec)
 ysql> drop table if exists publishes;
uery OK, \theta rows affected, 1 warning (0.00 sec)
 ysql> drop table if exists releasedOn;
uery OK, 0 rows affected, 1 warning (0.00 sec)
 squ'z vsql' create table Developer(devStudioName varchar(50) primary key, headquartered varchar(20) not null, yrFounded int not null, type varchar(20) not null); sery OK, 0 rows affected (0.02 sec)
 ysql> create table Publisher(pubStudioName varchar(50) primary key, headquartered varchar(20) not null, yrFounded int not null, type varchar(20) not null); uery OK, 0 rows affected (0.02 sec)
  sql> create table VideoGames(gameName varchar(50) primary key, releaseYear int not null, genre varchar(50), series varchar(20),platform varchar(50) not null,esrbRating varchar(20)); ery OK, 0 rows affected (0.03 sec)
 ysql> create table Platforms(platformName varchar(50) primary key, developer varchar(50) not null, generation varchar(50) not null, releaseDate int not null); uery OK, 0 rows affected (0.02 sec)
 ysql> create table Critic(name varchar(50), gameName varchar(50), score int, Primary key(name, gameName)); uery OK, \theta rows affected (\theta.02 sec)
ysql> create table developsFor(devStudioName varchar(50), pubStudioName varchar(50), Primary key(devStudioName, pubStudioName));
puery OK, 0 rows affected (0.02 sec)
 ysql> create table publishes(pubStudioName varchar(50), gameName varchar(50),Primary key(pubStudioName, gameName));
nery OK, 0 rows affected (0.02 sec)
 nysql> create table publishes(pubStudioName varchar(50), gameName varchar(50),Primary key(pubStudioName, gameName));
Query OK, 0 rows affected (0.02 sec)
mysql> create table releasedOn(gameName varchar(50), platformName varchar(50), Primary key(gameName, platformName));
Query OK, 0 rows affected (0.02 sec)
mysql> show tables;
  Tables_in_videogames
  developer
  developsfor
  platforms
  publisher
  publishes
  releasedon
  videogames
8 rows in set (0.00 sec)
mysql> describe developer;
                                              | Null | Key | Default | Extra |
  Field
                        Type
  devStudioName
                           varchar(50) | NO
                                                 NO
  headquartered
                           varchar(20)
                                                                     NULL
  yrFounded
                           varchar(20)
  type
  rows in set (0.00 sec)
mysql> describe publisher;
                                              | Null | Key | Default | Extra |
  Field
  pubStudioName |
                           varchar(50) | NO
                                                            PRI
  headquartered |
                           varchar(20)
  yrFounded
                                                 NO
  type
                           varchar(20)
                                                 NO
                                                                     NULL
  rows in set (0.00 sec)
```

```
mysql> describe videogames;
 Field
                             Null | Key | Default | Extra
              Type
 gameName
               varchar(50)
                             NO
                                     PRI |
                                           NULL
 releaseYear
                int
                              NO
                                           NULL
               varchar(50)
                             YES
                                           NULL
 genre
 series
               varchar(20)
                             YES
                                           NULL
 platform
               varchar(50)
                             NO
                                           NULL
 esrbRating
               varchar(20)
                             YES
                                           NULL
 rows in set (0.00 sec)
mysql> describe platforms;
                             | Null | Key | Default | Extra
 Field
                Type
 platformName
                varchar(50)
                                      PRI
                              NO
                                           NULL
 developer
                varchar(50)
                                            NULL
                              NO
 generation
                varchar(50)
                              NO
                                            NULL
 releaseDate
                              NO
                                           NULL
4 rows in set (0.00 sec)
mysql> describe critic;
 Field
                          Null | Key | Default | Extra
            Type
            varchar(50)
 name
                          NO
                                  PRI
                                        NULL
            varchar(50)
                           NO
                                  PRI
                                        NULL
 gameName
                          YES
                                       NULL
 score
 rows in set (0.01 sec)
mysql> describe developsFor;
 Field
                              | Null | Key | Default | Extra
                Type
 devStudioName
                 varchar(50) NO
                                      PRI
                                            NULL
 pubStudioName
                 varchar(50) NO
                                      PRI | NULL
 rows in set (0.00 sec)
```

```
mysql> describe releasedOn;load data local infile
                            | Null | Key | Default | Extra |
 Field
              Type
 gameName
              varchar(50) NO
                                   PRI NULL
                                   PRI NULL
 platformName | varchar(50) | NO
2 rows in set (0.00 sec)
   -> 'C:/Users/rainb/Desktop/scripts/COMP3421/developerData.txt' into table developer
        fields terminated by ','
          lines terminated by '\r\n';
Query OK, 10 rows affected (0.01 sec)
Records: 10 Deleted: 0 Skipped: 0 Warnings: 0
mysql>
mysql> load data local infile
   -> 'C:/Users/rainb/Desktop/scripts/COMP3421/publisherData.txt' into table publisher
          fields terminated by ','
          lines terminated by '\r\n';
Query OK, 10 rows affected (0.00 sec)
Records: 10 Deleted: 0 Skipped: 0 Warnings: 0
mysql> load data local infile
   -> 'C:/Users/rainb/Desktop/scripts/COMP3421/videoGamesData.txt' into table videoGames
          fields terminated by ','
          lines terminated by '\r\n';
Query OK, 25000 rows affected (0.32 sec)
Records: 25000 Deleted: 0 Skipped: 0 Warnings: 0
mysql>
mysql> load data local infile
   -> 'C:/Users/rainb/Desktop/scripts/COMP3421/platformsData.txt' into table platforms
          fields terminated by ','
         lines terminated by '\r\n';
Query OK, 30 rows affected (0.00 sec)
Records: 30 Deleted: 0 Skipped: 0 Warnings: 0
mysql>
mysql> load data local infile
   -> 'C:/Users/rainb/Desktop/scripts/COMP3421/criticData.txt' into table critic
          fields terminated by ','
          lines terminated by '\r\n';
Query OK, 25000 rows affected (0.28 sec)
Records: 25000 Deleted: 0 Skipped: 0 Warnings: 0
```

```
mysql>
mysql> load data local infile
   -> 'C:/Users/rainb/Desktop/scripts/COMP3421/developsForData.txt' into table developsFor
          fields terminated by ','
         lines terminated by '\r\n';
Query OK, 10 rows affected (0.01 sec)
Records: 10 Deleted: 0 Skipped: 0 Warnings: 0
mysql>
mysql> load data local infile
   -> 'C:/Users/rainb/Desktop/scripts/COMP3421/publishesData.txt' into table publishes
          fields terminated by ','
          lines terminated by '\r\n';
Query OK, 25000 rows affected (0.29 sec)
Records: 25000 Deleted: 0 Skipped: 0 Warnings: 0
mysql>
mysql> load data local infile
   -> 'C:/Users/rainb/Desktop/scripts/COMP3421/releasedOnData.txt' into table releasedOn
          fields terminated by ','
         lines terminated by '\r\n';
Query OK, 25000 rows affected (0.27 sec)
Records: 25000 Deleted: 0 Skipped: 0 Warnings: 0
mysql> select count(*) from developer;
 count(*)
  -----+
       10
1 row in set (0.00 sec)
mysql> select count(*) from publisher;
 count(*)
   ----+
       10
 row in set (0.00 sec)
```

```
mysql> select count(*) from videoGames;
 count(*)
    25000
 row in set (0.05 sec)
mysql> select count(*) from platforms;
 count(*)
 row in set (0.00 sec)
mysql> select count(*) from critic;
 count(*)
    25000
1 row in set (0.04 sec)
mysql> select count(*) from developsFor;
 count(*)
       10
1 row in set (0.00 sec)
mysql> select count(*) from publishes;
 count(*)
    25000
1 row in set (0.03 sec)
mysql> select count(*) from releasedOn;
 count(*)
    25000
 row in set (0.04 sec)
```

mysql> mysql> select * from developer limit 9; | headquartered | yrFounded | type devStudioName 2K Games 2005 Subsidiary 343 Industries USA 2009 Division Activision Arkane Studios Subsidiary Subsidiary 1999 Bandai Namco France Subsidiary Bethesda Game Studios 2001 Division Japan BioWare Subsidiary USA 1995 Blizzard Entertainment Subsidiary Canada 1991 Bungie USA 1991 | Public

9 rows in set (0.00 sec)

mysql> select * from publisher limit 9;

pubStudioName	headquartered	yrFounded	type
CD Projekt Red	Poland	1994	Public
Deep Silver	Germany	2002	Division
Electronic Arts	USA	1982	Public
Epic Games	USA	1991	Private
Gearbox	USA	1999	Subsidiary
id Software	USA	1991	Subsidiary
Konami	Japan	1969	Public
Lucas Arts	USA	1982	Subsidiary
Microsoft	USA	1975	Public
+	+	+	

9 rows in set (0.00 sec)

mysql> select * from videoGames limit 9;

gameName	releaseYear	genre	series	+ platform	esrbRating
game_1	1987	Sandbox	45	Playstation 5	Rating Pending
game_10	1988	Action-Adventure	132	Gameboy	Adults Only 18+
game_100	1999	Action-Adventure	180	Atari 2600	Rating Pending
game_1000	2017	Platformer	168	Playstation 5	Mature 17+
game_10000	1966	Platformer	112	Commodore 64	Everyone
game_10001	2015	Shooter	158	Gameboy Advance	Rating Pending
game_10002	1963	MOBA	122	Playstation Vita	Everyone 10+
game_10003	1953	Action-Adventure	3	Xbox 360	Everyone 10+
game_10004	1971	Shooter	108	Nintendo 64	Adults Only 18+

9 rows in set (0.00 sec)

live3.py – assign3

```
mysql> select * from platforms limit 9;
                 | developer | generation | releaseDate |
 platformName
 Apple II
                    Apple
                                 2nd
                                                    1977
 Atari 2600
                    Atari
                                 2nd
                                                    1977
 Atari 8-bit
                    Atari
                                 2nd
                                                    1979
 Commodore 64
                    Commodore
                                 3rd
                                                    1982
 Dreamcast
                    Sega
                                 6th
                                                    1999
                    Nintendo
                                                    1989
 Gameboy
                                 4th
 Gameboy Advance
                    Nintendo
                                 6th
                                                    2001
 Gameboy Color
                    Nintendo
                                 5th
                                                    1998
                                                    2001
 Gamecube
                    Nintendo
                                 6th
 rows in set (0.00 sec)
mysql> select * from critic limit 9;
                gameName score
 name
 Aaron Boulding | game_1003
                                  23
 Aaron Boulding | game_10122
                                  39
 Aaron Boulding | game_1020
                                  92
 Aaron Boulding | game_10413
                                  65
 Aaron Boulding | game_10490
                                  89
 Aaron Boulding | game_10531 |
                                  15
 Aaron Boulding | game_10546 |
                                  10
 Aaron Boulding | game 10550
                                  24
 Aaron Boulding | game_10604 |
                                  94
 rows in set (0.00 sec)
mysql> select * from developsFor limit 9;
                        pubStudioName
 devStudioName
 2K Games
                           CD Projekt Red
 343 Industries
                           Deep Silver
 Activision
                          Electronic Arts
 Arkane Studios
                          Epic Games
 Bandai Namco
                           Gearbox
 Bethesda Game Studios
                           id Software
 BioWare
                           Konami
 Blizzard Entertainment
                           Lucas Arts
                           Microsoft
 Bungie
```

rows in set (0.00 sec)

```
mysql> select * from publishes limit 9;
  pubStudioName
                   gameName
 CD Projekt Red
                    game_10
 CD Projekt Red
                    game_100
 CD Projekt Red
                    game_10005
 CD Projekt Red
                    game_10006
 CD Projekt Red
                    game_10011
 CD Projekt Red
                    game_10018
 CD Projekt Red
                    game_10028
 CD Projekt Red
                    game 10033
 CD Projekt Red
                    game_10049
 rows in set (0.00 sec)
mysql> select * from releasedOn limit 9;
               platformName
  gameName
  game_1
                Gameboy Advance
                Xbox Series X
  game_10
                Playstation 3
 game_100
                Gameboy Color
 game_1000
                Playstation Vita
  game_10000
                Playstation Portable
  game_10001
  game_10002
                Wii U
  game_10003
                Playstation 3
  game_10004
                Xbox 360
 rows in set (0.00 sec)
```