

Course Title:	Fundamentals of Data Engineering
Course Number:	COE848
Semester/Year (e.g.F2016)	

Instructor:	Faezeh Ensan
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<i>Assignment/Lab Number:</i>	5
<i>Assignment/Lab Title:</i>	Data Base Programming

<i>Submission Date:</i>	31/03/2020
<i>Due Date:</i>	

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*By signing above you attest that you have contributed to this written lab report and confirm that all work you have contributed to this lab report is your own work. Any suspicion of copying or plagiarism in this work will result in an investigation of Academic Misconduct and may result in a "0" on the work, an "F" in the course, or possibly more severe penalties, as well as a Disciplinary Notice on your academic record under the Student Code of Academic Conduct, which can be found online at: <http://www.ryerson.ca/senate/current/pol60.pdf>

Lab 5 Report

Using the completed tables and Query Code from lab 4, a Java application using Netbeans version 8.2 was created to replicate the output data points of the Query Tables. Using the JDBC jar library file, the Java application could connect to the VideoGameDB and access the queries.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
```

Figure 1: Basic Interface of the Query Selection

Tasks

1. Biggest Releases First in North America

When selecting 1, the output will be the biggest release in terms of Copies Sold with the Video Game title appearing. The data point chosen is based on the date of the NA release date compared with JP release date.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
1

Title: Kingdom Hearts III. Release in NA: 2019-01-29. Copies Sold: 5000000
Enter Selection:
```

Figure 2: Task 1 Output with Biggest Releases in NA First

2. Games Where JP and NA Release Dates are the Same

Choosing 2 will display the games in which have the same release date as was in JP and NA. The Output shows the Title of the game, the Release Date in JP and Release Date in NA.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
2

Title Life is Strange;: Beofre the Storm. Release Data in JP: 2017-12-20. Release Data in NA: 2017-12-20
Title Oninaki. Release Data in JP: 2019-08-22. Release Data in NA: 2019-08-22
Title Octopath Traveler. Release Data in JP: 2018-07-13. Release Data in NA: 2018-07-13
Title Shadow of the Tomb Raider. Release Data in JP: 2018-09-14. Release Data in NA: 2018-09-14
Enter Selection:
```

Figure 3: Task 2 Output with Same NA and JP Release Dates and Game Titles

3. Highest Rated Game

Picking 3 will display the highest rated game based on Metacritic scores as they are used to judge a game's commercial success and the bonus pay for the creators as well as future sequels.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
3

Title: Nier Automata. Rating(Metacritic): 88/100
Enter Selection:
```

Figure 4: Task 3 Output with Game Title and Metacritic Score

4. Least Successful IP

When choosing 4, the least successful game in terms of Copies Sold is shown based on if the game is a part of an already existing IP. The Game Title, IP and Copies are shown.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
4

Title: Left Alive, IP: Front Mission, Copies Sold: 80000
Enter Selection:
```

Figure 5: Task 4 Output with Game Title, IP and Copies Sold

5. Most Sold Game

Choosing 5 displays the most sold game from the list. The game chosen is based on the copies sold. The Game Title and Copies Sold are displayed.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
5

Title: Kingdom Hearts III, Copies Sold: 5000000
Enter Selection:
.
```

Figure 6: Task 5 Output with Game Title and Copies Sold

6. Outsourced vs Internal Games Performance

When using 6, the display will show all the games and their Copies Sold with the Developers from Square Enix and the Developers Names from the entity Developers. Having the data points shown will allow for the conclusion of the games that have done well using either internal developers or third-party developers.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
6

Title: Dissidia Final Fantasy NT, Developer Name: Team Ninja, Square Developer Name: Square Enix Inc., Copies Sold: 460000
Title: Life is Strange;: Beofre the Storm, Developer Name: Avalanche Studios, Square Developer Name: Square Enix Europe, Copies Sold: null
Title: Oninaki, Developer Name: Tokyo RPG Factory, Square Developer Name: Crystal Dynmaics, Copies Sold: 36000
Title: Octopath Traveler, Developer Name: Square Enix, Square Developer Name: Square Enix Montreal, Copies Sold: 2000000
Title: Shadow of the Tomb Raider, Developer Name: Eidos Montreal, Square Developer Name: Tokyo RPG Factory, Copies Sold: 4200000
Title: Just Cause 4, Developer Name: Deck Nine, Square Developer Name: Luminous Productions, Copies Sold: 378056
Title: Nier Automata, Developer Name: Platinum Games, Square Developer Name: DigiCube, Copies Sold: 4500000
Title: Dragon Quest Heroes II, Developer Name: Omega Force, Square Developer Name: Square Electronic Arts, Copies Sold: 580000
Title: Left Alive, Developer Name: Ilinx, Square Developer Name: Eidos Hungary, Copies Sold: 80000
Title: Kingdom Hearts III, Developer Name: Luminous Productions, Square Developer Name: PlayOnline, Copies Sold: 5000000
Enter Selection:
```

Figure 7: Task 6 Output with Game Title, Developer Name, Square Developer Name and Copies Sold

7. Releases on Exclusive Platforms

With the pick of 7, the data points shown will be the games in which only appear on one of the 2 consoles from the selection of: Microsoft Windows, PS4, XboxOne and Nintendo Switch. The reason being that these are the most common consoles in which games are released. Have on 3 of them nets the largest audience a developer can get but having it on only 2 (having it on 1 is for a limited time as after a few months, the game will release on other platforms) platforms allows for certain audiences to have access to the game, prompting the sale of the console as opposed to game sales. The display will show the Game Title, a new Column called Platform Exclusivity and the Microsoft Windows, PS4, XboxOne and Nintendo Switch Boolean values.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
7

Title: Dissidia Final Fantasy NT. Platform Exclusive: YES. Microsoft Windows: 1. PS4: 1. Xbox: null. Nintendo Switch: null
Title: Life is Strange;; Beofre the Storm. Platform Exclusive: NO. Microsoft Windows: 1. PS4: 1. Xbox: 1. Nintendo Switch: null
Title: Oninaki. Platform Exclusive: NO. Microsoft Windows: 1. PS4: 1. Xbox: null. Nintendo Switch: 1
Title: Octopath Traveler. Platform Exclusive: YES. Microsoft Windows: 1. PS4: null. Xbox: null. Nintendo Switch: 1
Title: Shadow of the Tomb Raider. Platform Exclusive: NO. Microsoft Windows: 1. PS4: 1. Xbox: 1. Nintendo Switch: null
Title: Just Cause 4. Platform Exclusive: NO. Microsoft Windows: 1. PS4: 1. Xbox: 1. Nintendo Switch: null
Title: Nier Automata. Platform Exclusive: NO. Microsoft Windows: 1. PS4: 1. Xbox: 1. Nintendo Switch: null
Title: Dragon Quest Heroes II. Platform Exclusive: NO. Microsoft Windows: 1. PS4: 1. Xbox: null. Nintendo Switch: 1
Title: Left Alive. Platform Exclusive: YES. Microsoft Windows: 1. PS4: 1. Xbox: null. Nintendo Switch: null
Title: Kingdom Hearts III. Platform Exclusive: YES. Microsoft Windows: null. PS4: 1. Xbox: 1. Nintendo Switch: null
Enter Selection:
```

Figure 8: Task 7 Output with Game Title and Platform Availability Based on 1 and null Values

8. Remake or Original

Using 8, the games displayed will have a their Game Title, Boolean indicator if the game is a remake or remaster and the Copies Sold.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
8

Title: Dissidia Final Fantasy NT. Remastered/Remaked: 0. Copies Sold: 460000
Title: Life is Strange;; Beofre the Storm. Remastered/Remaked: 0. Copies Sold: null
Title: Oninaki. Remastered/Remaked: 0. Copies Sold: 36000
Title: Octopath Traveler. Remastered/Remaked: 0. Copies Sold: 2000000
Title: Shadow of the Tomb Raider. Remastered/Remaked: 0. Copies Sold: 4200000
Title: Just Cause 4. Remastered/Remaked: 0. Copies Sold: 378056
Title: Nier Automata. Remastered/Remaked: 0. Copies Sold: 4500000
Title: Dragon Quest Heroes II. Remastered/Remaked: 0. Copies Sold: 580000
Title: Left Alive. Remastered/Remaked: 0. Copies Sold: 80000
Title: Kingdom Hearts III. Remastered/Remaked: 0. Copies Sold: 5000000
Enter Selection:
```

Figure 9: Task 8 Output with Game Title, Remaster Boolean and Copies Sold

9. Same Director with Successful Games

Choosing this task will show nothing but that is intended to as there is no same director in production with more than 1 game. This was intended for further entries in the data base as there will be directors who have worked on more than 1 game and their works have been judged.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
9

Enter Selection:
```

Figure 10: Task 9 Output with Nothing (As Intended as of now)

10. Which Games have more than 1 Genres?

Choosing 10 will display the games in which have more than 1 Genre. Some game have only 1 genre in which they focus in on but many games do experiment with multiple genres. The Query finds the games with more than 1 genre. The Game Title, Genre 1 and Genre2 are displayed.

```
run:
Opened DataBase Successfully

1. Biggest Releases First in North America
2. Games Where JP and NA Release Dates are the Same
3. Highest Rated Game
4. Least Successful IP
5. Most Sold Game
6. Outsourced vs Internal Game Performance
7. Releases on Exclusive Platforms
8. Remake or Original
9. Same Director with Successful Games
10. Which Games have more than 2 Genres?
Enter Selection:
10

Title: Dissidia Final Fantasy NT. Genre 1: Action Role-Playing. Genre 2: Fighting
Title: Dragon Quest Heroes II. Genre 1: Hack and Slash. Genre 2: Action Role-Playing
Enter Selection:
1
```

Figure 11: Task 10 Output with Game Title, Genre 1 and Genre 2