

CPSC 304 Project Cover Page

Milestone #: 4

Date: 05 Aug 2024

Group Number: 14

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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

Repository Link

https://github.students.cs.ubc.ca/CPSC304-2024S-T2/project_a9h1b_b5c9u_d2h3b

SQL script

Found on the GitHub repository as 'games.sql'

Project Description

The domain of the project is the video game industry. This application aims to describe the comprehensive database for game enthusiasts, researchers, and industry professionals to easily access and analyze data related to video game development, publishing, people, platforms, and public reception. Users will be able to find information about various games including developer and publisher, genre, platforms the game runs on, and people involved with the games.

Our focus for users is to allow them to write reviews on games to share their thoughts. Users can find games and write reviews for them, update their reviews, and delete reviews. They can find the average reviews for each game and filter reviews for each game they are interested in.

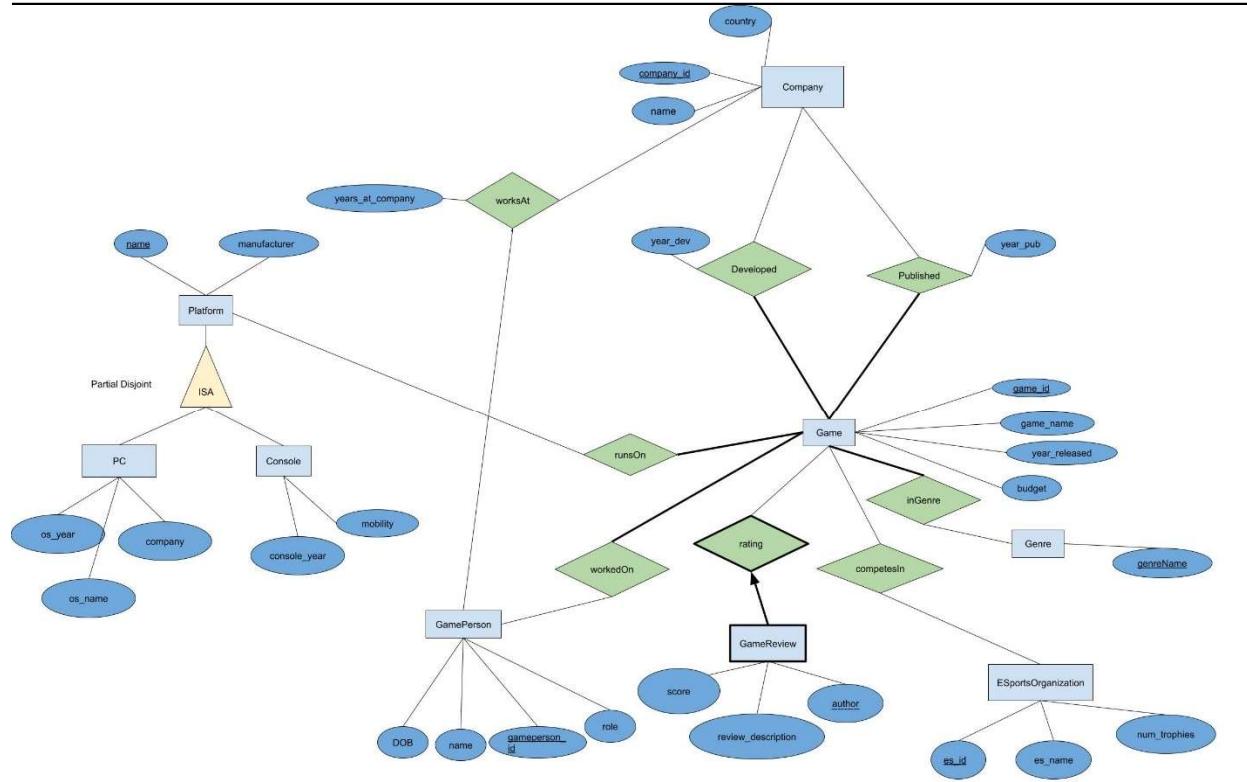
Tables and attributes will be dynamically loaded from the database, and the user can select tuples based on some settings, or project attributes based on what they want to see. When on the GAME table, users can click on a row to display more information about the game and filter reviews written for the game. Users can insert, update, and delete game reviews. Users can filter the database for games based on genres they are interested in.

Project Description Schema Changes

Compared to milestone 1 and 2, our database schema has updated the ISA to represent platforms instead of companies. We added the PC entity to the platform ISA. PCs and Consoles are their own entities containing unique information. We also adjusted the relationship between companies and games, with 2 relationships to determine what company or companies developed and published a given game. We added an ESportsOrganization entity to represent E-sports teams and made clear that GameReview is a weak entity to Game.

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Running games.sql

We run the command `start games.sql` to load our initial database.

Below are screenshots of our web application. Pressing **apply** when table “`table_name`” is selected under “Choose a table” will execute the query “`SELECT * FROM table_name`” and the results will be displayed on our site. We decided taking screenshots of the results as displayed on our web application was the most efficient way of showing what data is present in each relation.

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fetch tables Choose a table COMPANY

COMPANY_ID COMPANY_NAME COUNTRY

Set filters below:

COMPANY_ID
=

COMPANY_NAME
=

COUNTRY
=

COMPANY_ID	COMPANY_NAME	COUNTRY
100	Riot Games	United States
101	Mojang Studios	Sweden
102	Electronic Arts	United States
103	Nexon	Korea, Republic of
104	Activision Blizzard	United States
105	Rockstar Games	United States
106	Xbox Game Studios	United States
107	Sony Interactive Entertainment	Japan
108	CD Projekt Red	Poland
109	Ubisoft	France
110	Epic Games	United States
111	Innersloth	United States
112	Supergiant Games	United States
113	FromSoftware	Japan
114	Nintendo	Japan
115	Polyphony Digital	Japan
116	Naughty Dog	United States
117	Valve Corporation	United States
118	Bungie	United States
119	Double Fine Productions	United States
120	Thatgamecompany	United States
121	Bandai Namco Entertainment	Japan
122	2K Games	United States
123	Sony Santa Monica	United States
124	Ubisoft Montreal	Canada
125	Warner Bros. Interactive Entertainment	United States
126	THQ	United States

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fetch tables Choose a table COMPETESIN ▾

ES_ID GAME_ID

Set filters below:

ES_ID
= ▾

GAME_ID
= ▾

Apply

ES_ID	GAME_ID
10000	11
10001	12
10002	11
10003	11
10004	11
10005	11
10006	11

fetch tables Choose a table CONSOLE ▾

PLATFORM_NAME CONSOLE_YEAR MOBILITY

Set filters below:

PLATFORM_NAME
= ▾

CONSOLE_YEAR
= ▾

MOBILITY
= ▾

Apply

PLATFORM_NAME	CONSOLE_YEAR	MOBILITY
Xbox 360	2005	Stationary
Xbox One	2013	Stationary
PlayStation 3	2006	Stationary
PlayStation 4	2013	Stationary
Switch	2017	Mobile
PSP	2005	Mobile
Xbox Series X/S	2020	Stationary
PlayStation 5	2020	Stationary

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fetch tables Choose a table DEVELOPED ▾

COMPANY_ID GAME_ID YEAR_DEV

Set filters below:

COMPANY_ID
= ▾

GAME_ID
= ▾

YEAR_DEV
= ▾

Apply

COMPANY_ID	GAME_ID	YEAR_DEV
114	1	2017
108	2	2015
105	3	2018
109	4	2015
108	5	2020
105	6	2013
110	7	2017
111	8	2018
112	9	2020
113	10	2016
100	11	2009
100	12	2020
103	13	2003
103	14	2018
101	15	2011
104	16	1998
115	17	2009
104	18	2019
116	19	2013
116	20	2020
125	21	2007
117	22	1998
120	23	2012
123	24	2018
110	25	2006
119	26	2005
117	27	2007

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fetch tables Choose a table ESPORTSORGANIZATION ▾

ES_ID NUM_TROPHIES ES_NAME

Set filters below:

ES_ID
=

NUM_TROPHIES
=

ES_NAME
=

Apply

ES_ID	NUM_TROPHIES	ES_NAME
10000	7	SK Telecom T1
10001	3	SK Telecom T1
10002	2	Cloud9
10003	1	Team Liquid
10004	4	G2 Esports
10005	2	100 Thieves
10006	2	Fnatic

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fetch tables Choose a table GAME ▾

GAME_ID GAME_NAME YEAR_RELEASED BUDGET

Set filters below:

GAME_ID
= ▾

GAME_NAME
= ▾

YEAR_RELEASED
= ▾

BUDGET
= ▾

GAME_ID	GAME_NAME	YEAR_RELEASED	BUDGET
1	The Legend of Zelda: Breath of the Wild	2017	12000000
2	The Witcher 3: Wild Hunt	2015	81000000
3	Red Dead Redemption 2	2018	54000000
4	Rainbow Six Siege	2015	
5	Cyberpunk 2077	2020	174000000
6	Grand Theft Auto V	2013	265000000
7	Fortnite	2017	20000000
8	Among Us	2018	300000
9	Hades	2020	5000000
10	Dark Souls III	2016	30000000
11	League Of Legends	2009	100000000
12	Valorant	2020	20000000
13	Maplestory	2003	30000
14	Fifa Online 4	2018	50000
15	Minecraft	2011	0
16	Starcraft	1998	100000000
17	Gran Turismo	2009	100000
18	Call of Duty: Mobile	2019	35000
19	The Last of Us	2013	100000000
20	The Last of Us Part II	2020	120000000
21	BioShock	2007	25000000
22	Half-Life	1998	8500000
23	Journey	2012	5000000
24	God of War	2018	50000000
25	Gears of War	2006	10000000
26	Psychonauts	2005	11000000
27	Portal	2007	3000000

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fetch tables Choose a table GAMEPERSON

GAMEPERSON_ID DOB GPNAME ROLE

Set filters below:

GAMEPERSON_ID
=

DOB
=

GPNAME
=

ROLE
=

Apply

GAMEPERSON_ID	DOB	GPNAME	ROLE
1001	1982-04-10T07:00:00.000Z	Brandon Beck	Co-Founder
1002	1980-08-17T07:00:00.000Z	Marc Merrill	Co-Founder
1003	1968-02-22T07:00:00.000Z	Jung-ju Kim	Founder
1004	1967-11-03T07:00:00.000Z	Michael Morhaime	Co-Founder
1005	1979-06-01T07:00:00.000Z	Markus Persson	Founder
1006	1971-11-03T07:00:00.000Z	Sam Houser	Co-Founder
1007		Hideaki Nishino	CEO
1008	1971-03-01T07:00:00.000Z	Hermen Hulst	CEO
1009	1972-06-21T07:00:00.000Z	Shigeru Miyamoto	Game Designer
1010	1978-01-31T07:00:00.000Z	Todd Howard	Game Director
1011	1972-05-23T07:00:00.000Z	Ken Levine	Creative Director
1012	1982-07-09T07:00:00.000Z	Neil Druckmann	Writer
1013	1974-08-15T07:00:00.000Z	Hideo Kojima	Game Designer
1014	1975-02-10T07:00:00.000Z	Cory Barlog	Creative Director
1015	1983-09-28T07:00:00.000Z	Gabe Newell	Co-Founder
1016	1980-04-12T07:00:00.000Z	Amy Hennig	Writer
1017	1985-11-30T07:00:00.000Z	Cliff Bleszinski	Game Designer
1018	1981-09-12T07:00:00.000Z	Chris Avellone	Writer
1019	1977-10-11T07:00:00.000Z	Jonathan Blow	Game Designer
1020	1980-03-14T07:00:00.000Z	Randy Pitchford	CEO
1021	1973-12-22T07:00:00.000Z	Tim Schafer	Game Designer
1022	1985-05-06T07:00:00.000Z	Jenova Chen	Game Designer

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fetch tables Choose a table GAMEREVIEW

GAME_ID AUTHOR REV_DESC SCORE

Set filters below:

GAME_ID
=

AUTHOR
=

REV_DESC
=

SCORE
=

GAME_ID	AUTHOR	REV_DESC	SCORE
1	RogueFan	An incredible journey from start to finish. The open-world design is unmatched.	5
1	GamerGirl	A breathtaking adventure that redefines the genre.	4
1	GamerGuy	The best Zelda game yet! A true masterpiece.	5
1	CasualPlayer	A bit overwhelming at first, but once you get the hang of it, it's amazing.	4
1	OldSchoolGamer	Brings back the nostalgia with a modern twist. Absolutely loved it!	4
2	GamerGirl	Geralt's adventures are as thrilling as ever. A true RPG gem.	5
2	RPGenthusiast	One of the best RPGs ever made. The story, the characters, the world - all top-notch.	5
2	CasualPlayer	A bit too complex for my taste, but undeniably a great game.	4
2	FantasyLover	A dark, gripping story that kept me hooked from start to finish.	5
2	GamerDad	An epic tale with so much to do. I can't recommend it enough.	4
5	GamerDad	Despite the bugs, the story and world are immersive and engaging.	4
5	TechJunkie	A futuristic masterpiece. The city feels alive and the missions are exciting.	4
5	CasualPlayer	The game had a rocky start, but after updates, it's quite enjoyable.	3
5	GamerGirl	A brilliant sci-fi RPG that delivers on its promises.	4
5	RPGenthusiast	Complex characters and a deep story make this a must-play.	4
6	RPGenthusiast	An open-world experience like no other. Endless fun and chaos.	5
6	ActionLover	The missions are thrilling and the world is incredibly detailed.	5
6	GamerDad	A bit overhyped, but still a solid game with lots to do.	4
6	CasualPlayer	Great game, but the online mode can be frustrating at times.	4
6	ThrillSeeker	The story mode is fantastic and the characters are memorable.	5
7	ThrillSeeker	The best battle royale game out there. Constant updates keep it fresh.	4
7	CasualPlayer	Fun to play with friends, but can get repetitive after a while.	3
7	BuildingMaster	The building mechanics add a unique twist to the gameplay.	4
7	GamerGirl	Great game with a vibrant community and creative modes.	4
7	RPGenthusiast	Super fun and addictive. I love the skins and emotes.	4
8	GamerDad	A simple yet highly addictive game. Perfect for parties.	4
8	OldSchoolGamer	The social deduction aspect is thrilling and keeps you on your toes.	5

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8	GamerGirl1	Fun to play with friends, but can get a bit stale after many rounds.	4
8	CasualGamer	A great game for quick sessions. Easy to learn, hard to master.	4
9	GamerGirl1	A perfect blend of roguelike mechanics and a compelling story.	5
9	CasualPlayer	The combat is smooth and the progression is rewarding.	5
9	GreekMythFan	An amazing game with rich lore and great characters.	5
9	RogueFan	Each run feels unique and the game keeps you coming back for more.	4
9	GamerGuy	One of the best indie games I've ever played. Highly recommended.	5
10	SoulsborneFan	A challenging and rewarding experience. Not for the faint-hearted.	4
10	HardcoreGamer	The difficulty is brutal but fair. An absolute masterpiece.	5
10	CasualPlayer	Too difficult for me, but I can see why others love it.	3
10	FantasyFan	The dark, atmospheric world is captivating and the lore is deep.	4
11	GamerDad	Overall, It's a nice MOBA Game, the learning curve may be steep but as you progress and learn its rewarding, most especially learning the different champions in the game,	3
11	LeaguePlayer2	Best game ever!	4
12	GamerGuy	Valorant has taken the gaming world by storm since its release in 2020, quickly becoming one of the most popular games in the competitive gaming scene.	4
12	LeaguePlayer2	Valorant is the worst game ever. League of Legends is way better.	2
13	MaplestoryPlayer1	I have played this game since It's beta release in America. I have been apart of every update this game has gone through since then and I must say it was like watching a best friend grow up with me.	3
14	ActionLover	I have been a Fifa player since fifa 97 and had my fair share of disappointments with it. Fifa 23 is a huge improvement on 22. You actually have to play sensible.	3
15	MinecraftPlayer1	this game is actually amazing	4
16	StarcraftPlayer1	spend more than half of my life playing this game. everything was just too good.	5
23	GamerGuy	A beautiful and emotional experience. A true piece of art.	5
23	CasualPlayer	Short but impactful. The visuals and music are stunning.	4
23	RPGenthusiast	A masterpiece in storytelling without words. Simply amazing.	5
23	GamerGirl1	An unforgettable journey. The multiplayer aspect is unique and touching.	4
23	LeaguePlayer2	A serene and peaceful game that everyone should experience.	4
27	ILovePortal	A brilliant puzzle game with a dark sense of humor. Loved it.	5
27	RogueFan	The concept and execution are perfect. GLaDOS is a fantastic character.	5
27	CasualGamer	Short but sweet. The puzzles are challenging and fun.	4
27	GamerGuy	An innovative game that changed the genre. Highly recommended.	5
27	MaplestoryPlayer1	The perfect blend of storytelling and puzzle-solving.	4
8	IGN	Among Us is a simple yet highly addictive game that thrives on social interaction. It's a perfect game for parties and online play.	4
8	GameSpot	The charm of Among Us lies in its simplicity and the thrill of deception. It's a must-play for fans of social deduction games.	4
21	IGN	BioShock is a groundbreaking game that combines a compelling narrative with immersive gameplay. It's a masterpiece in the gaming world.	5
21	GameSpot	With its unique setting and thought-provoking story, BioShock stands out as one of the best games of its generation.	5
9	IGN	Hades is a stunning blend of roguelike mechanics and deep storytelling. Its replayability and rich characters make it a standout title.	4
9	GameSpot	From its fluid combat to its engaging narrative, Hades sets a new standard for roguelike games. It's an absolute must-play.	5
19	IGN	The Last of Us is a gripping tale of survival and companionship. Its emotional depth and immersive gameplay make it a modern classic.	5
19	GameSpot	A masterclass in storytelling and character development, The Last of Us is a powerful and unforgettable gaming experience.	5
20	IGN	The Last of Us Part II pushes the boundaries of narrative and emotional storytelling in games. It's a bold and unforgettable sequel.	4
20	GameSpot	A stunning and controversial follow-up, The Last of Us Part II delivers an intense and emotionally charged experience.	4

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fetch tables Choose a table GENRE

GENRE_NAME

Set filters below:

GENRE_NAME

=

GENRE_NAME
Action
Adventure
Battle Royale
Building
Casual
Competitive
Coop
Fighting
First Person Shooter
Hero Shooter
Horror
Indie
MMORPG
MOBA
Multiplayer
Music
Party
Platformer
Puzzle
RPG
RTS
Racing
Rhythm
Roguelike
Sandbox
Shooter
Simulation
Single Player
Social Deduction
Sports
Stealth
Story-Rich

Strategy
Survival
Tactical Shooter
Third Person Shooter

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[fetch tables](#) Choose a table INGENRE ▾

GAME_ID GENRE_NAME

Set filters below:

GAME_ID

= ▾ []

GENRE_NAME

= ▾ []

[Apply](#)

GAME_ID	GENRE_NAME
1	Action
1	Adventure
1	RPG
1	Single Player
2	Action
2	Adventure
2	RPG
2	Single Player
2	Story-Rich
3	Action
3	Adventure
3	RPG
3	Shooter
3	Single Player
3	Story-Rich
3	Third Person Shooter
4	Competitive
4	First Person Shooter
4	Multiplayer
4	Tactical Shooter
5	Action
5	Adventure
5	RPG
5	Single Player
5	Story-Rich
6	Action

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6	Adventure
6	First Person Shooter
6	Multiplayer
6	RPG
6	Racing
6	Shooter
6	Single Player
6	Third Person Shooter
7	Battle Royale
7	Building
7	Multiplayer
7	Shooter
7	Survival
7	Third Person Shooter
8	Coop
8	Multiplayer
8	Party
8	Social Deduction
9	Action
9	RPG
9	Roguelike
10	Action
10	Adventure
10	Coop
10	Multiplayer
10	RPG
10	Single Player
11	Competitive
11	MOBA
11	Multiplayer
11	Strategy
12	Competitive
12	First Person Shooter

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12	Hero Shooter
12	Multiplayer
12	Tactical Shooter
13	Adventure
13	MMORPG
13	Multiplayer
13	Platformer
14	Multiplayer
14	Single Player
14	Sports
15	Building
15	Casual
15	Coop
15	Multiplayer
15	Sandbox
15	Single Player
15	Survival
16	Competitive
16	Multiplayer
16	RTS
16	Single Player
16	Strategy
17	Racing
17	Simulation
17	Single Player
17	Sports
18	Casual
18	First Person Shooter
18	Multiplayer

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18	Shooter
19	Action
19	Adventure
19	Horror
19	Single Player
19	Story-Rich
19	Survival
20	Action
20	Adventure
20	Horror
20	Single Player
20	Story-Rich
20	Survival
21	First Person Shooter
21	Horror
21	RPG
22	Action
22	Adventure
22	First Person Shooter
23	Adventure
23	Indie
23	Single Player
24	Action
24	Adventure
24	RPG
25	Action
25	Adventure
25	Third Person Shooter
26	Action
26	Adventure
26	Platformer
27	First Person Shooter
27	Puzzle

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fetch tables Choose a table PC ▾

PLATFORM_NAME COMPANY OS_NAME OS_YEAR

Set filters below:

PLATFORM_NAME
= ▾ []

COMPANY
= ▾ []

OS_NAME
= ▾ []

OS_YEAR
= ▾ []

Apply

PLATFORM_NAME	COMPANY	OS_NAME	OS_YEAR
Windows	Microsoft	Windows 1.0	1985
Windows	Microsoft	Windows XP	2001
Windows	Microsoft	Windows 7	2009
Windows	Microsoft	Windows 10	2015
MacOS	Apple	Mac OS X 10.5 Leopard	2007
MacOS	Apple	macOS Catalina	2019
MacOS	Apple	macOS Big Sur	2020
MacOS	Apple	macOS Sequoia	2024

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fetch tables Choose a table **PLATFORM** ▾

PLATFORM_NAME MANUFACTURER

Set filters below:

PLATFORM_NAME

=

MANUFACTURER

=

Apply

PLATFORM_NAME	MANUFACTURER
Windows	Microsoft
MacOS	Apple
Xbox 360	Microsoft
Xbox One	Microsoft
Xbox Series X/S	Microsoft
PlayStation 3	Sony
PlayStation 4	Sony
PlayStation 5	Sony
Switch	Nintendo
PSP	Sony
iOS	Apple
Android	Google

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fetch tables Choose a table PUBLISHED ▾

COMPANY_ID GAME_ID YEAR_PUB

Set filters below:

COMPANY_ID
=

GAME_ID
=

YEAR_PUB
=

Apply

COMPANY_ID	GAME_ID	YEAR_PUB
114	1	2017
108	2	2015
105	3	2018
109	4	2015
108	5	2020
105	6	2013
110	7	2017
111	8	2018
112	9	2020
121	10	2016
100	11	2009
100	12	2020
103	13	2003
103	14	2018
101	15	2011
106	15	2011
107	15	2011
104	16	1998
107	17	2009
104	18	2019
107	19	2013
107	20	2020
125	21	2007
117	22	1998
123	23	2012
107	24	2018
110	25	2006
125	26	2005

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117	27	2007
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fetch tables Choose a table **RUNSON** ▾

PLATFORM_NAME GAME_ID

Set filters below:

PLATFORM_NAME
= ▾

GAME_ID
= ▾

Apply

PLATFORM_NAME	GAME_ID
Android	7
Android	8
Android	15
Android	18
MacOS	21
MacOS	26
PlayStation 3	19
PlayStation 3	21
PlayStation 3	23
PlayStation 3	26
PlayStation 3	27
PlayStation 4	2
PlayStation 4	3
PlayStation 4	4
PlayStation 4	5
PlayStation 4	6
PlayStation 4	9
PlayStation 4	10
PlayStation 4	17
PlayStation 4	19
PlayStation 4	20
PlayStation 4	23
PlayStation 4	24
PlayStation 4	26
PlayStation 5	4
PlayStation 5	20

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Switch	1
Switch	9
Windows	2
Windows	3
Windows	4
Windows	5
Windows	6
Windows	7
Windows	8
Windows	9
Windows	10
Windows	11
Windows	12
Windows	13
Windows	14
Windows	15
Windows	16
Windows	17
Windows	18
Windows	21
Windows	22
Windows	25
Windows	26
Windows	27
Xbox 360	21
Xbox 360	25
Xbox 360	26
Xbox 360	27
Xbox One	2

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fetch tables Choose a table WORKEDON

GAMEPERSON_ID GAME_ID

Set filters below:

GAMEPERSON_ID
=

GAME_ID
=

GAMEPERSON_ID	GAME_ID
1001	11
1001	12
1002	11
1002	12
1003	13
1003	14
1004	16
1005	15
1006	6
1007	24
1008	24
1009	1
1010	3
1011	21
1012	19
1012	20
1014	24
1015	27
1016	19
1017	25
1019	23
1021	26
1022	23

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Xbox One	2
Xbox One	3
Xbox One	4
Xbox One	5
Xbox One	6
Xbox One	9
Xbox One	10
Xbox One	26
Xbox Series X/S	2
Xbox Series X/S	4
iOS	7
iOS	8
iOS	15
iOS	18

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fetch tables Choose a table WORKSAT ▾

GAMEPERSON_ID YEARS_AT_COMPANY COMPANY_ID

Set filters below:

GAMEPERSON_ID
= ▾

YEARS_AT_COMPANY
= ▾

COMPANY_ID
= ▾

Apply

GAMEPERSON_ID	YEARS_AT_COMPANY	COMPANY_ID
1001	18	100
1002	18	100
1003	25	103
1004	20	104
1005	13	101
1006	26	105
1007	18	107
1008	18	107
1009	41	114
1010	27	116
1012	18	116
1014	10	123
1015	25	117
1016	15	116
1017	20	110
1019	10	120
1021	25	119
1022	18	120

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Screenshots of Query Results on GUI

INSERT BEFORE

19	GameSpot	A masterclass in storytelling and character development, The Last of Us is a powerful and unforgettable gaming experience.	5
20	IGN	The Last of Us Part II pushes the boundaries of narrative and emotional storytelling in games. It's a bold and unforgettable sequel.	4
20	GameSpot	A stunning and controversial follow-up, The Last of Us Part II delivers an intense and emotionally charged experience.	4

INSERT AFTER

19	GameSpot	A masterclass in storytelling and character development, The Last of Us is a powerful and unforgettable gaming experience.	5
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20	GameSpot	A stunning and controversial follow-up, The Last of Us Part II delivers an intense and emotionally charged experience.	4
1	CPSC304	This is an example review	5

DELETE BEFORE

19	GameSpot	A masterclass in storytelling and character development, The Last of Us is a powerful and unforgettable gaming experience.	5
20	IGN	The Last of Us Part II pushes the boundaries of narrative and emotional storytelling in games. It's a bold and unforgettable sequel.	4
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1	CPSC304	This is an example review	5

DELETE AFTER

19	GameSpot	A masterclass in storytelling and character development, The Last of Us is a powerful and unforgettable gaming experience.	5
20	IGN	The Last of Us Part II pushes the boundaries of narrative and emotional storytelling in games. It's a bold and unforgettable sequel.	4
20	GameSpot	A stunning and controversial follow-up, The Last of Us Part II delivers an intense and emotionally charged experience.	4

UPDATE BEFORE

19	GameSpot	A masterclass in storytelling and character development, The Last of Us is a powerful and unforgettable gaming experience.	5
20	IGN	The Last of Us Part II pushes the boundaries of narrative and emotional storytelling in games. It's a bold and unforgettable sequel.	4
20	GameSpot	A stunning and controversial follow-up, The Last of Us Part II delivers an intense and emotionally charged experience.	4
1	CPSC304	This is an example review	5

UPDATE AFTER

19	GameSpot	A masterclass in storytelling and character development, The Last of Us is a powerful and unforgettable gaming experience.	5
20	IGN	The Last of Us Part II pushes the boundaries of narrative and emotional storytelling in games. It's a bold and unforgettable sequel.	4
20	GameSpot	A stunning and controversial follow-up, The Last of Us Part II delivers an intense and emotionally charged experience.	4
1	CPSC304	This is an updated example	4

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SELECTION BEFORE

fetch tables Choose a table GAME ▾

GAME_ID GAME_NAME YEAR_RELEASED BUDGET

Set filters below:

GAME_ID
= ▾

GAME_NAME
= ▾

YEAR_RELEASED
= ▾

BUDGET
= ▾

Apply

GAME_ID	GAME_NAME	YEAR_RELEASED	BUDGET
1	The Legend of Zelda: Breath of the Wild	2017	12000000
2	The Witcher 3: Wild Hunt	2015	81000000
3	Red Dead Redemption 2	2018	54000000

SELECTION AFTER

Show Table

fetch tables Choose a table GAME ▾

GAME_ID GAME_NAME YEAR_RELEASED BUDGET

Set filters below:

GAME_ID
= ▾

GAME_NAME
= ▾

YEAR_RELEASED
= ▾

BUDGET
< ▾ 60000000

Apply

GAME_ID	GAME_NAME	YEAR_RELEASED	BUDGET
1	The Legend of Zelda: Breath of the Wild	2017	12000000
3	Red Dead Redemption 2	2018	54000000

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PROJECTION BEFORE

fetch tables Choose a table GAME ▾

GAME_ID GAME_NAME YEAR_RELEASED BUDGET

Set filters below:

GAME_ID
= ▾

GAME_NAME
= ▾

YEAR_RELEASED
= ▾

BUDGET
= ▾

Apply

GAME_ID	GAME_NAME	YEAR_RELEASED	BUDGET
1	The Legend of Zelda: Breath of the Wild	2017	12000000
2	The Witcher 3: Wild Hunt	2015	81000000
3	Red Dead Redemption 2	2018	54000000
4	Rainbow Six Siege	2015	
5	Cyberpunk 2077	2020	174000000

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PROJECTION AFTER

fetch tables Choose a table GAME ▾

GAME_ID GAME_NAME YEAR_RELEASED BUDGET

Set filters below:

GAME_ID

= ▾

GAME_NAME

= ▾

YEAR_RELEASED

= ▾

BUDGET

= ▾

Apply

GAME_ID	GAME_NAME
1	The Legend of Zelda: Breath of the Wild
2	The Witcher 3: Wild Hunt
3	Red Dead Redemption 2
4	Rainbow Six Siege
5	Cyberpunk 2077

Show Table

fetch tables Choose a table **GAME**

GAME_ID GAME_NAME YEAR_RELEASED BUDGET

Set filters below:

GAME_ID
=

GAME_NAME
=

YEAR_RELEASED
=

BUDGET
=

Show Table

fetch tables Choose a table **CONSOLE**

PLATFORM_NAME CONSOLE_YEAR MOBILITY

Set filters below:

PLATFORM_NAME
=

CONSOLE_YEAR
=

MOBILITY
=

**PROJECTION functionality will dynamically
fetch tables and load attributes**

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JOIN BEFORE

GAME_ID	GAME_NAME	YEAR_RELEASED	BUDGET
1	The Legend of Zelda: Breath of the Wild	2017	12000000
2	The Witcher 3: Wild Hunt	2015	81000000
3	Red Dead Redemption 2	2018	54000000

JOIN AFTER

GAME_ID	GAME_NAME	YEAR_RELEASED	BUDGET
1	The Legend of Zelda: Breath of the Wild	2017	12000000
2	The Witcher 3: Wild Hunt	2015	81000000
Genres: Action, Adventure, RPG, Single Player, Story-Rich Publishers: CD Projekt Red Developers: CD Projekt Red Platforms: PlayStation 4, Windows, Xbox One, Xbox Series X/S People involved:	CasualPlayer: A bit too complex for my taste, but undeniably a great game. [4] GamerDad: An epic tale with so much to do. I can't recommend it enough. [4]		
<input type="button" value="Filter reviews"/> Equal to <input type="button" value="▼"/>			
4			
3	Red Dead Redemption 2	2018	54000000

NOTE: The information in the left cell is derived from JOIN queries where the game_ids are equal. The reviews that appear on the right are results from a JOIN query where the user inputs an operator and a number to filter reviews.

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— Average review score of the game

GROUP BY BEFORE

Display games with average rating:

[Show games with average rating](#)

.

GROUP BY AFTER

Display games with average rating:

[Show games with average rating](#)

game_id	name	average_score
1	The Legend of Zelda: Breath of the Wild	3.6
2	The Witcher 3: Wild Hunt	4.6000000000000005
5	Cyberpunk 2077	3.8000000000000003
6	Grand Theft Auto V	4.6000000000000005
7	Fortnite	3.8000000000000003
8	Among Us	4.16666666666667
9	Hades	4.714285714285709
10	Dark Souls III	4
11	League Of Legends	3.5
12	Valorant	3
13	Maplestory	3
14	Fifa Online 4	3
15	Minecraft	4
16	Starcraft	5
19	The Last of Us	5
20	The Last of Us Part II	4
21	BioShock	5
23	Journey	4.4
27	Portal	4.6000000000000005

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— Showing the budget of company spent to develop games — Under Company

HAVING BEFORE

Find companies with given development expenditure

Budget threshold:

HAVING AFTER

Find companies with given development expenditure

Budget threshold:

company_ID	company_name	avg_budget
110	Epic Games	15000000
103	Nexon	40000
117	Valve Corporation	5750000
108	CD Projekt Red	127500000
112	Supergiant Games	5000000
125	Warner Bros. Interactive Entertainment	25000000
111	Innersloth	300000
113	FromSoftware	30000000
100	Riot Games	60000000
104	Activision Blizzard	50017500
115	Polyphony Digital	100000
116	Naughty Dog	110000000
120	Thatgamecompany	5000000
119	Double Fine Productions	11000000
114	Nintendo	12000000
123	Sony Santa Monica	50000000
105	Rockstar Games	159500000

Find companies with given development expenditure

Budget threshold:

company_ID	company_name	avg_budget
108	CD Projekt Red	127500000
116	Naughty Dog	110000000
105	Rockstar Games	159500000

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NESTED QUERY BEFORE

After clicking "I want ALL games"

Pick your favorite genres and find a game for you

Action Adventure RPG Single Player Story-Rich Shooter Third Person Shooter Competitive First Person Shooter Multiplayer Tactical Shooter Racing Battle Royale Building Survival Coop Party Social Deduction Roguelike MOBA Strategy Hero Shooter MMORPG Platformer Sports Casual Sandbox RTS Simulation Horror Indie Puzzle

I want ALL games I want ABOVE AVG games

Red Dead Redemption 2
Gears of War
Grand Theft Auto V

NESTED QUERY AFTER

After clicking "I want ABOVE AVG games"

Pick your favorite genres and find a game for you

Action Adventure RPG Single Player Story-Rich Shooter Third Person Shooter Competitive First Person Shooter Multiplayer Tactical Shooter Racing Battle Royale Building Survival Coop Party Social Deduction Roguelike MOBA Strategy Hero Shooter MMORPG Platformer Sports Casual Sandbox RTS Simulation Horror Indie Puzzle

I want ALL games I want ABOVE AVG games

Grand Theft Auto V

DIVISION BEFORE

Pick your favorite genres and find a game for you

- Action Adventure RPG Single Player Story-Rich Shooter Third Person
Shooter Competitive First Person Shooter Multiplayer Tactical Shooter Racing
Battle Royale Building Survival Coop Party Social Deduction Roguelike
MOBA Strategy Hero Shooter MMORPG Platformer Sports Casual Sandbox
 RTS Simulation Horror Indie Puzzle

[I want ALL games](#) [I want ABOVE AVG games](#)

DIVISION AFTER

Pick your favorite genres and find a game for you

- Action Adventure RPG Single Player Story-Rich Shooter Third Person
Shooter Competitive First Person Shooter Multiplayer Tactical Shooter Racing
Battle Royale Building Survival Coop Party Social Deduction Roguelike
MOBA Strategy Hero Shooter MMORPG Platformer Sports Casual Sandbox
 RTS Simulation Horror Indie Puzzle

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Red Dead Redemption 2

The Witcher 3: Wild Hunt

Hades

The Legend of Zelda: Breath of the Wild

Cyberpunk 2077

Grand Theft Auto V

Dark Souls III

God of War