DBMS PROJECT

TOPIC: **GAMING DATABASE**

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OVERVIEW OF GAMING DATABASE:

The main aim of the gaming database is to give all the information about various games to every **gaming freak**!!

This Database is created for the gamers who want to know about any game before they can buy/try. This Database contains every detail which includes:

Game Name.

Rating.

PGEI Rating.

Genre.

Platform.

Developer.

No. of Players.

Release Date.

Price.

Store.

Publisher.

Minimum Specifications.

Recommended Specifications.

FEATURES:

Gamers can view the genre, rating etc. of the game in our database before they can buy the game depending on their required specifications.

Our database even provides the information of store and publisher. So, you can visit the store and buy/install the game.

Gamers who can't afford their dream setup can check out our low spec games tab which they can play. They also can check the min specifications of games so that they can match their requirements and find the ideal game for their setup.

ER DIAGRAM DETAILS:

Our ER Diagram contains of 7 Entity Sets. They are:

Game
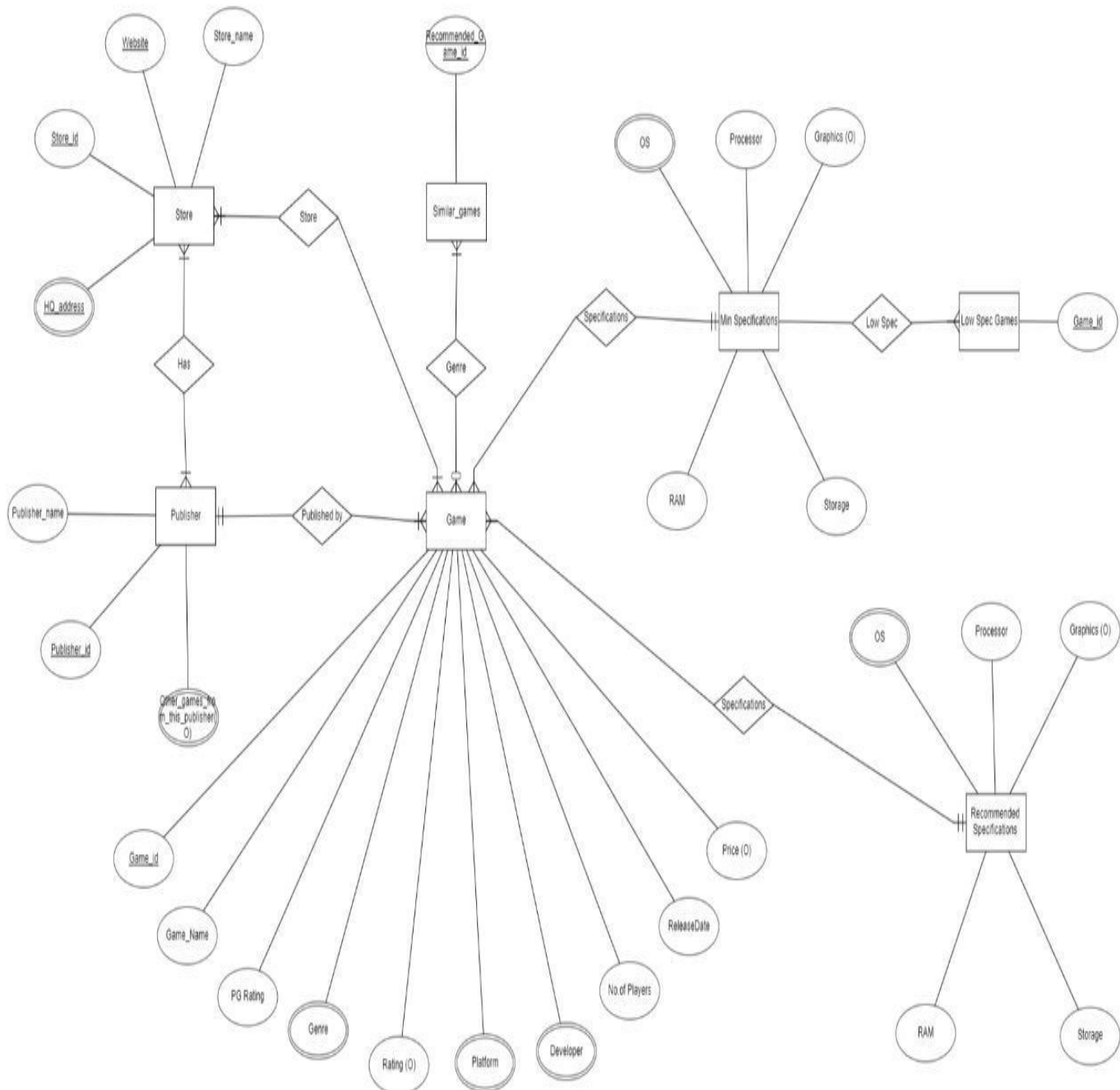
Publisher

Store

Similar Games

Min Specifications

Low Spec Games

Recommended Specifications

1. Game: This entity contains 8 attributes which stores the details of their respective names.
   Game id, Game Name, PGEI Rating, Genre, Rating, Platform, Developer, No. of players, Release Date, Price

2. Publisher: This entity contains 3 attributes which stores the details of their respective names.
   Publisher id, Publisher Name, Other games from this publisher.

3. Store: This entity contains 4 attributes which stores the details of their respective names.
   Store id, Store name, HQ Address, Website.

4. Similar Games: This entity contains 1 attribute which stores the details of their respective names.
   Recommended Game id.

5. Min Specifications: This entity contains 5 attributes which stores the details of their respective names.
   OS, Processor, Ram, Graphics, Storage.

6. Low Spec games: This entity contains 1 attribute which stores the details of their respective names.
   Game id.

7. Recommended Specifications: This entity contains 5 attributes which store the details of their respective names.
   OS, Processor, Ram, Graphics, Storage.

ER DIAGRAM:

CREATION AND INSERTION:

CREATE TABLE Game (

  Game_id VARCHAR2(10) PRIMARY KEY,

  Game_name VARCHAR2(255) NOT NULL,

  PG_rating VARCHAR2(255) NOT NULL,

  Genre VARCHAR2(255) NOT NULL,

  Rating BINARY_DOUBLE,

  Platform VARCHAR2(255) NOT NULL,

  Developer VARCHAR2(255) NOT NULL,

  No_of_Players NUMBER(10) NOT NULL,

  Release_date VARCHAR2(12) NOT NULL,

  Price VARCHAR2(10)

);

INSERT INTO Game VALUES ('RDRD2' , 'Red Dead Redemption 2' , '18+ : Nudity, Violence' , 'Action, Open World' , 9.2 , 'PC' , 'Rockstar Games' , 1 , '11/05/2019' , '29$');

INSERT INTO Game VALUES ('VAL69' , 'Valorant' , '16+: Violence' , 'Action, Shooter' , 8.5 , 'PC' , 'Riot Games' , 1 , '06/03/2020' , NULL);

INSERT INTO Game VALUES ('AMO32' , 'Among Us' , '10+ : Mild Blood' , 'Casual' , 9.1 , 'PC , Android' , 'Innersloth' , 1 , '06/05/18' , '119/-');

INSERT INTO Game VALUES ('GK169' , 'Gotham Knights' , '18+ : Nudity, Violence' , 'Action, Open World' , NULL , 'PC' , 'Warner Bros.' , 1 , '10/25/22' , '2999/-');

INSERT INTO Game Values ('GOFW3' , 'God Of War 3' , '18+ : Nudity, Violence' , 'RPG, Adventure' , 9.8 , 'XBOX, PS4' , 'Santa Monica Studio' , 1 , '01/14/22' , '3299/-');

INSERT INTO Game VALUES ('CSGO9' , 'Counter Strike: Global Offensive' , '18+ : Violence' , 'Action, Shooter' , 8.8 , 'PC' , 'Valve' , 1 , '06/03/2015' , NULL);

INSERT INTO Game VALUES ('FIFA5' , 'FIFA 20' , '7+' , 'Sports' , 8.1 , 'XBOX, PS5, PS4' , 'EA Sports' , 4 , '09/24/2019' , '19$');

INSERT INTO Game VALUES ('ACBF4' , 'Assasins Creed: Black Flag' , '18+ : Violence' , 'Adventure, Open World' , 9.4 , 'PC, XBOX, PS4' , 'EA Sports' , 1 , '10/29/2013' , NULL);

INSERT INTO Game VALUES ('GTAV5' , 'Grand Theft Auto V' , '18+ : Nudity, Violence' , 'Action, Open World' , 9.8 , 'PC, XBOX, PS4' , 'Rockstar Games' , 1 , '09/17/2013' , '1499/-');

INSERT INTO Game VALUES ('CODB4' , 'Call Of Duty: Black Ops' , '16+ : Violence' , 'Action, Shooter' , 7.9 , 'XBOX, PS3' , 'Activision' , 1 , '11/09/2010' , NULL);

SELECT * FROM Game;

	GAME_ID	GAME_NAME	PG_RATING	GENRE	RATING	PLATFORM	DEVELOPER	NO_OF_PLAYERS	RELEASE_DATE	PRICE
1	RDRD2	Red Dead Redemption 2	18+ : Nudity, Violence	Action, Open World	9.2	PC	Rockstar Games	1	11/05/2019	29$
2	VAL69	Valorant	16+: Violence	Action, Shooter	8.5	PC	Riot Games	1	06/03/2020	(null)
3	AMO32	Among Us	10+ : Mild Blood	Casual	9.1	PC , Android	Innersloth	1	06/05/18	119/-
4	GK169	Gotham Knights	18+ : Nudity, Violence	Action, Open World	(null)	PC	Warner Bros.	1	10/25/22	2999/-
5	GOFW3	God Of War 3	18+ : Nudity, Violence	RPG, Adventure	9.8	XBOX, PS4	Santa Monica Studio	1	01/14/22	3299/-
6	CSGO9	Counter Strike: Global Offensive	18+ : Violence	Action, Shooter	8.8	PC	Valve	1	06/03/2015	(null)
7	FIFA5	FIFA 20	7+	Sports	8.1	XBOX, PS5, PS4	EA Sports	4	09/24/2019	19$
8	ACBF4	Assasins Creed: Black Flag	18+ : Violence	Adventure, Open World	9.4	PC, XBOX, PS4	EA Sports	1	10/29/2013	(null)
9	GTAV5	Grand Theft Auto V	18+ : Nudity, Violence	Action, Open World	9.8	PC, XBOX, PS4	Rockstar Games	1	09/17/2013	1499/-
10	CODB4	Call Of Duty: Black Ops	16+ : Violence	Action, Shooter	7.9	XBOX, PS3	Activision	1	11/09/2010	(null)

```
CREATE TABLE Publisher(

  Game_id VARCHAR2(10),

  Publisher_id VARCHAR2(10),

  Publisher_name VARCHAR2(255) NOT NULL,

  Other_games_from_this_publisher VARCHAR2(255),

  FOREIGN KEY (Game_id) REFERENCES Game(Game_id),

  FOREIGN KEY (Other_games_from_this_publisher) REFERENCES
Game(Game_id)

);


INSERT INTO Publisher VALUES ('RDRD2' , 'RGS21' , 'Rockstar Games' ,
'GTAV5');

INSERT INTO Publisher VALUES ('FIFA5' , 'EASP2' , 'EA Sports' ,
'ACBF4');

INSERT INTO Publisher VALUES ('ACBF4' , 'EASP2' , 'EA Sports' ,
'FIFA5');

INSERT INTO Publisher VALUES ('GTAV5' , 'RGS21' , 'Rockstar Games' ,
'RDRD2');


SELECT * FROM Publisher;
```

	GAME_ID	PUBLISHER_ID	PUBLISHER_NAME	OTHER_GAMES_FROM_THIS_PUBLISHER
1	RDRD2	RGS21	Rockstar Games	GTAV5
2	FIFA5	EASP2	EA Sports	ACBF4
3	ACBF4	EASP2	EA Sports	FIFA5
4	GTAV5	RGS21	Rockstar Games	RDRD2

```sql
CREATE TABLE Store(

 Store_id VARCHAR2(10) not null ,

  Store_name VARCHAR2(255) NOT NULL,

  Website VARCHAR2(255) NOT NULL,

  HQ_adress VARCHAR2(255) NOT NULL,

 PRIMARY KEY(Store_id)

);
```

INSERT INTO Store VALUES ('10EPG' , 'Epic Games' , 'https://store.epicgames.com/en-US/' , 'Cary, North Carolina, United States');

INSERT INTO Store VALUES ('STM84' , 'Steam' , 'https://store.steampowered.com/' , 'Texas, United States');

SELECT * FROM Store;

	STORE_ID	STORE_NAME	WEBSITE	HQ_ADRESS
1	10EPG	Epic Games	https://store.epicgames.com/en-US/	Cary, North Carolina, United States
2	STM84	Steam	https://store.steampowered.com/	Texas, United States

```sql
CREATE TABLE Stores (

 Game_id VARCHAR2(10),

 Store_id VARCHAR2(10),

 FOREIGN KEY (store_id) REFERENCES store,

 FOREIGN KEY (Game_id) REFERENCES Game(Game_id)

);
```

INSERT INTO Stores VALUES ('RDRD2','10EPG');

INSERT INTO Stores VALUES ('VAL69','10EPG');

INSERT INTO Stores VALUES ('GTAV5','10EPG');

INSERT INTO Stores VALUES ('CSGO9','STM84');

SELECT * FROM Stores;

	GAME_ID	STORE_ID
1	RDRD2	10EPG
2	VAL69	10EPG
3	GTAV5	10EPG
4	CSGO9	STM84

CREATE TABLE Similar_games (

 Game_id VARCHAR2(10),

 Recommended_game_id VARCHAR2(10),

 FOREIGN KEY (Game_id) REFERENCES Game (Game_id),

 FOREIGN KEY (Recommended_game_id) REFERENCES Game (Game_id)

);

INSERT INTO Similar_games VALUES ('RDRD2' , 'GTAV5');

INSERT INTO Similar_games VALUES ('VAL69' , 'CSGO9');

INSERT INTO Similar_games VALUES ('CSGO9' , 'CODB4');

INSERT INTO Similar_games VALUES ('GOFW3' , 'ACBF4');

SELECT s.Game_id , s.Recommended_game_id , g.Rating FROM Similar_games s , Game g WHERE g.Game_id = s.Recommended_game_id;

GAME_ID	RECOMMENDED_GAME_ID	RATING
1 VAL69	CSGO9	8.8
2 GOFW3	ACBF4	9.4
3 RDRD2	GTAV5	9.8
4 CSGO9	CODB4	7.9

CREATE TABLE Min_specifications (

  Game_id VARCHAR2(10),

  OS VARCHAR2(255) NOT NULL,

  Processor VARCHAR2(255) NOT NULL,

  RAM VARCHAR2(255) NOT NULL,

  Graphics VARCHAR2(255),

  Storage VARCHAR2(255) NOT NULL,

  FOREIGN KEY (Game_id) REFERENCES Game (Game_id)

);

INSERT INTO Min_specifications VALUES('RDRD2' , 'Windows 7 - Service Pack 1 (6.1.7601)' , 'Intel(R) Core(TM) i5-2500K / AMD FX-6300' , '8GB' , 'Nvidia GeForce GTX 770 2GB / AMD Radeon R9 280 3GB' , '150GB');

INSERT INTO Min_specifications VALUES('FIFA5' , 'Windows 7 - Service Pack 1 (6.1.7601)' , 'Intel(R) Core(TM) i3-2100K / AMD PHENOM X4' , '8GB' , 'Nvidia GTX 660 2GB / AMD Radeon 7850 2GB' , '50GB');

INSERT INTO Min_specifications VALUES('GK169' , 'TBD' , 'TBD' , 'TBD' , 'TBD' , 'TBD');

INSERT INTO Min_specifications VALUES('GTAV5' , 'Windows 7 64 Bit Service Pack 1' , 'Intel Quad Q6600 (4 CPUs) / AMD Phenom 9850 Quad (4 CPUs)' , '4GB' , 'NVIDIA 9800 GT 1GB / AMD HD 4870 1GB (DX 10, 10.1, 11)' ,'90GB');

SELECT * FROM Min_specifications;

GAME_ID	OS	PROCESSOR	RAM	GRAPHICS	STO
1 RDRD2	Windows 7 - Service Pack 1 (6.1.7601)	Intel(R) Core(TM) i5-2500K / AMD FX-6300	8GB	Nvidia GeForce GTX 770 2GB / AMD Radeon R9 280 3GB	150
2 FIFA5	Windows 7 - Service Pack 1 (6.1.7601)	Intel(R) Core(TM) i3-2100K / AMD PHENOM X4	8GB	Nvidia GTX 660 2GB / AMD Radeon 7850 2GB	50G
3 GK169	TBD	TBD	TBD	TBD	TBD
4 GTAV5	Windows 7 64 Bit Service Pack 1	Intel Quad Q6600 (4 CPUs) / AMD Phenom 9850 Quad (4 CPUs)	4GB	NVIDIA 9800 GT 1GB / AMD HD 4870 1GB (DX 10, 10.1, 11)	90G

CREATE TABLE Low_spec_games (

  Game_id VARCHAR2(10),

  FOREIGN KEY (Game_id) REFERENCES Game (Game_id)

);

INSERT INTO Low_spec_games VALUES('FIFA5');

INSERT INTO Low_spec_games VALUES('AMO32');

INSERT INTO Low_spec_games VALUES('CODB4');

SELECT l.Game_id , g.Rating FROM Low_spec_games l, Game g WHERE l.Game_id = g.Game_id;

	GAME_ID	RATING
1	AMO32	9.1
2	FIFA5	8.1
3	CODB4	7.9

```sql
CREATE TABLE Recommended_specifications (

  Game_id VARCHAR2(10),

  OS VARCHAR2(255) NOT NULL,

  Processor VARCHAR2(255) NOT NULL,

  RAM VARCHAR2(255) NOT NULL,

  Graphics VARCHAR2(255),

  Storage VARCHAR2(255) NOT NULL,

  FOREIGN KEY (Game_id) REFERENCES Game (Game_id)

);
```

```sql
INSERT INTO Recommended_specifications VALUES('RDRD2' , 'Windows 10 - April 2018 Update (v1803)' , 'Intel(R) Core(TM) i7-4770K / AMD Ryzen 5 1500x' , '12GB' , 'Nvidia GeForce GTX 1060 6GB / AMD Radeon RX 480 4GB' , '150GB');
```

```sql
INSERT INTO Recommended_specifications VALUES('FIFA5' , 'Windows 10 - April 2018 Update (v1803)' , 'Intel(R) Core(TM) i5-3550K / AMD FX8150' , '8GB' , 'Nvidia GeForce GTX 670 4GB / AMD Radeon R9 270X 4GB' , '50GB');
```

```sql
INSERT INTO Recommended_specifications VALUES('GK169' , 'TBD' , 'TBD' , 'TBD' , 'TBD' , 'TBD');
```

INSERT INTO Recommended_specifications VALUES('GTAV5' , 'Windows 7 64 Bit Service Pack 1' , 'Intel Core i5 3470 @ (4 CPUs) / AMD X8 FX-8350 @ (8 CPUs)' , '8GB' , 'NVIDIA GTX 660 2GB / AMD HD7870 2GB' , '120GB');

SELECT * FROM Recommended_specifications;

GAME_ID	OS	PROCESSOR	RAM	GRAPHICS	STORA
1 RDRD2	Windows 10 - April 2018 Update (v1803)	Intel(R) Core(TM) i7-4770K / AMD Ryzen 5 1500x	12GB	Nvidia GeForce GTX 1060 6GB / AMD Radeon RX 480 4GB	150GB
2 FIFA5	Windows 10 - April 2018 Update (v1803)	Intel(R) Core(TM) i5-3550K / AMD FX8150	8GB	Nvidia GeForce GTX 670 4GB / AMD Radeon R9 270X 4GB	50GB
3 GK169	TBD	TBD	TBD	TBD	TBD
4 GTAV5	Windows 7 64 Bit Service Pack 1	Intel Core i5 3470 @ (4 CPUs) / AMD X8 FX-8350 @ (8 CPUs)	8GB	NVIDIA GTX 660 2GB / AMD HD7870 2GB	120GB

QUERIES:

1) **A Gamer wants to know great games with ratings greater than 9 and games that should be compatible on PC.**

SELECT * FROM Game WHERE rating > 9.5 AND platform like %PC%;

GAME_ID	GAME_NAME	PG_RATING	GENRE	RATING	PLATFORM	DEVELOPER	NO_OF_PLAYERS	RELEASE_DATE	PRICE
1 RDRD2	Red Dead Redemption 2	18+ : Nudity, Violence	Action, Open World	9.2	PC	Rockstar Games	1	11/05/2019	29$
2 AMO32	Among Us	10+ : Mild Blood	Casual	9.1	PC , Android	Innersloth	1	06/05/18	119/-
3 ACBF4	Assasins Creed: Black Flag	18+ : Violence	Adventure, Open World	9.4	PC, XBOX, PS4	EA Sports	1	10/29/2013	(null)
4 GTAV5	Grand Theft Auto V	18+ : Nudity, Violence	Action, Open World	9.8	PC, XBOX, PS4	Rockstar Games	1	09/17/2013	1499/-

2) **A gamer wants to try out free games with rating more than or equal to 8.5.**

SELECT * FROM Game WHERE price IS NULL AND rating > 8.5;

GAME_ID	GAME_NAME	PG_RATING	GENRE	RATING	PLATFORM	DEVELOPER	NO_OF_PLAYERS	RELEASE_DATE	PRICE
1 VAL69	Valorant	16+: Violence	Action, Shooter	8.5	PC	Riot Games	1	06/03/2020	(null)
2 CSGO9	Counter Strike: Global Offensive	18+ : Violence	Action, Shooter	8.8	PC	Valve	1	06/03/2015	(null)
3 ACBF4	Assasins Creed: Black Flag	18+ : Violence	Adventure, Open World	9.4	PC, XBOX, PS4	EA Sports	1	10/29/2013	(null)

3) What are the games published by Rockstar games and EA sports.

SELECT GAME_NAME ,Publisher_name FROM Publisher,GAME WHERE GAME.GAME_ID = publisher.GAME_ID and (publisher_name = 'Rockstar Games' or publisher_name = 'EA Sports') ;

GAME_NAME	PUBLISHER_NAME
1 Red Dead Redemption 2	Rockstar Games
2 FIFA 20	EA Sports
3 Assasins Creed: Black Flag	EA Sports
4 Grand Theft Auto V	Rockstar Games