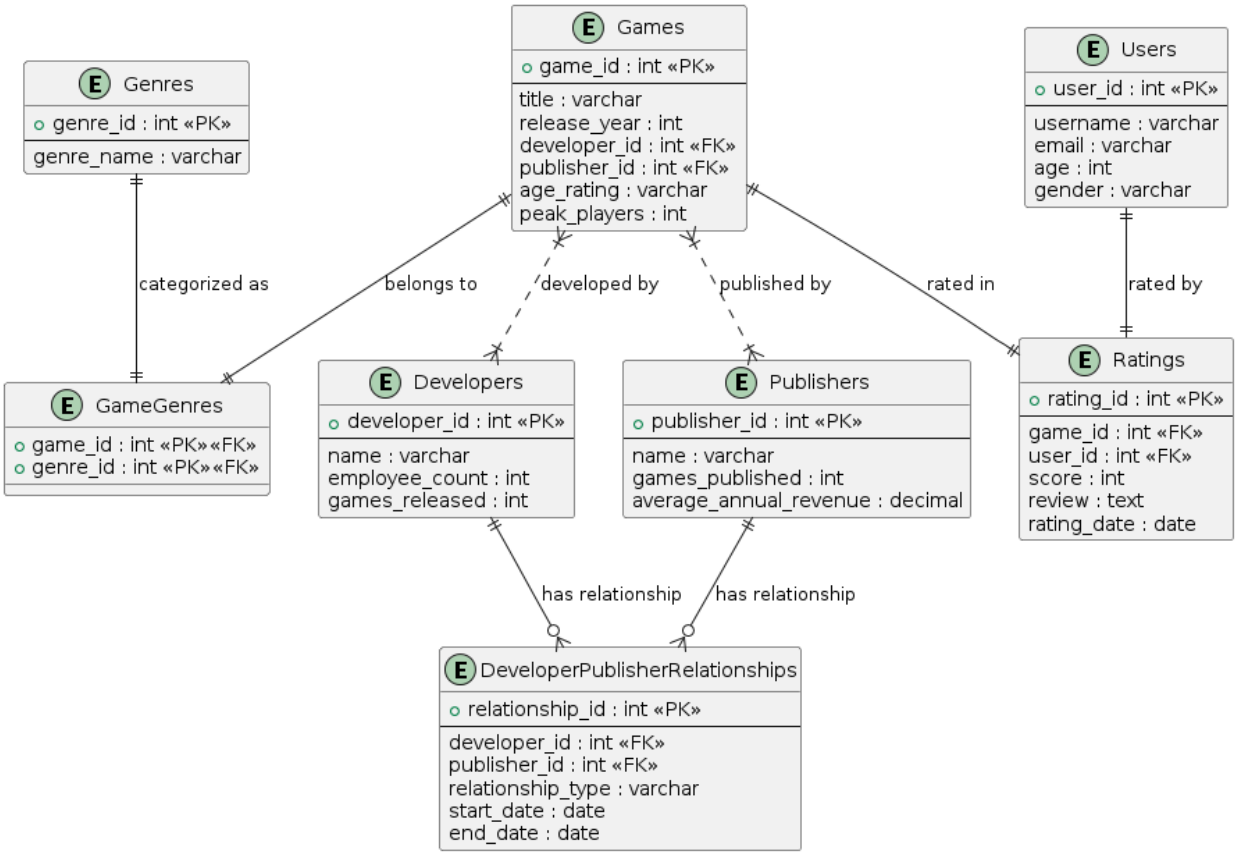
ERD



Задание

На защиту: для каждого жанра игр укажите (1) в каком году было наибольшее число релизов этого жанра (2) в каком году было наименьшее число релизов этого жанра (но они были) (3) компанию-разработчик, которая специализируется на этом жанре (больше всего выпусков именно этого жанра)

Решение:

1)Для начала добавим в базу тестовую игру, дабы хотя бы у одного разработчика было больше одной игры в каком-то жанре:

Query Query History

```sql
INSERT INTO Games (title, release_year, developer_id, publisher_id, age_rating, peak_players) VALUES
('Europa Universalis IV', 2013, 6, 7, '16+', 60000),
('Victoria III', 2022, 6, 7, '16+', 50000);

INSERT INTO GameGenres (game_id, genre_id) VALUES
(11, 4),  -- Strategy
(11, 5),  -- Simulation
(12, 4),  -- Strategy
(12, 5);  -- Simulation

SELECT * FROM Games
```

Data Output Messages Notifications

	game_id [PK] integer	title character varying (100)	release_year integer	developer_id integer	publisher_id integer	age_rating character varying (10)	peak_players integer
1	1	Fortnite	2017	1	5	13+	12000000
2	2	Half-Life: Alyx	2020	2	4	17+	16000
3	3	The Witcher 3	2015	3	6	18+	103000
4	4	Assassin`s Creed Odyssey	2018	4	3	17+	62000
5	5	Call of Duty: Modern Warfare	2019	7	2	18+	2000000
6	6	Call of Duty: Black Ops	2010	8	2	18+	900000
7	7	Dragon Age: Inquisition	2014	5	1	17+	4000
8	8	Crusader Kings III	2020	6	7	16+	100000
9	9	Helldivers	2015	9	8	16+	50000
10	10	Spider-Man	2018	10	8	16+	500000
11	11	Europa Universalis IV	2013	6	7	16+	60000
12	12	Victoria III	2022	6	7	16+	50000

2) Запрос:

```sql
WITH GenreReleaseCounts AS (
    SELECT
        gg.genre_id,
        g.release_year,
        COUNT(*) AS release_count
    FROM
        Games g
    JOIN
        GameGenres gg ON g.game_id = gg.game_id
    GROUP BY
        gg.genre_id, g.release_year
),
MaxYearReleases AS (
    SELECT
        genre_id,
        release_year AS max_release_year,
        release_count,
```

```sql
        ROW_NUMBER() OVER (PARTITION BY genre_id ORDER BY release_count DESC,
release_year) AS rn
    FROM
        GenreReleaseCounts
),
MinYearReleases AS (
    SELECT
        genre_id,
        release_year AS min_release_year,
        release_count,
        ROW_NUMBER() OVER (PARTITION BY genre_id ORDER BY release_count,
release_year) AS rn
    FROM
        GenreReleaseCounts
),
DeveloperSpecialization AS (
    SELECT
        gg.genre_id,
        g.developer_id,
        COUNT(*) AS genre_release_count
    FROM
        Games g
    JOIN
        GameGenres gg ON g.game_id = gg.game_id
    GROUP BY
        gg.genre_id, g.developer_id
),
TopDeveloperSpecialization AS (
    SELECT
        genre_id,
        developer_id,
        genre_release_count,
        ROW_NUMBER() OVER (PARTITION BY genre_id ORDER BY genre_release_count
DESC) AS rn
    FROM
        DeveloperSpecialization
)
SELECT
    g.genre_name,
    MAXYR.max_release_year,
    MINYR.min_release_year,
    d.name AS top_developer
FROM
    Genres g
LEFT JOIN
    MaxYearReleases MAXYR ON g.genre_id = MAXYR.genre_id AND MAXYR.rn = 1
LEFT JOIN
    MinYearReleases MINYR ON g.genre_id = MINYR.genre_id AND MINYR.rn = 1
LEFT JOIN
    TopDeveloperSpecialization TDS ON g.genre_id = TDS.genre_id AND TDS.rn = 1
LEFT JOIN
```

```
    Developers d ON TDS.developer_id = d.developer_id
ORDER BY
    g.genre_name;
```

3) Пример работы запроса:

```
        DeveloperSpecialization
)
SELECT
    g.genre_name,
    MAXYR.max_release_year,
    MINYR.min_release_year,
    d.name AS top_developer
FROM
    Genres g
LEFT JOIN
    MaxYearReleases MAXYR ON g.genre_id = MAXYR.genre_id AND MAXYR.rn = 1
LEFT JOIN
    MinYearReleases MINYR ON g.genre_id = MINYR.genre_id AND MINYR.rn = 1
LEFT JOIN
    TopDeveloperSpecialization TDS ON g.genre_id = TDS.genre_id AND TDS.rn = 1
LEFT JOIN
    Developers d ON TDS.developer_id = d.developer_id
ORDER BY
    g.genre_name;
```

Data Output Messages Notifications

	genre_name character varying (100)	max_release_year integer	min_release_year integer	top_developer character varying (100)
1	Action	2018	2015	Epic Games
2	Adventure	2018	2015	Insomniac Games
3	RPG	2014	2014	BioWare
4	Shooter	2010	2010	Treyarch
5	Simulation	2013	2013	Paradox Development Studio
6	Strategy	2013	2013	Paradox Development Studio