GameMarket

Presented by:

Illia Dolbnia
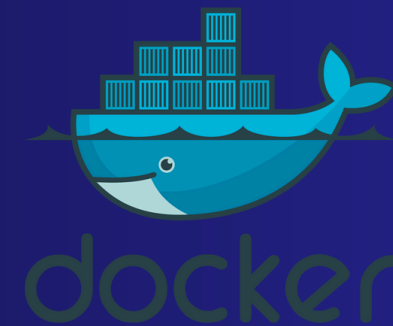
Sviatoslav Diachuk

Tools Used:

PostgreSQL: Relational database for structured data storage.

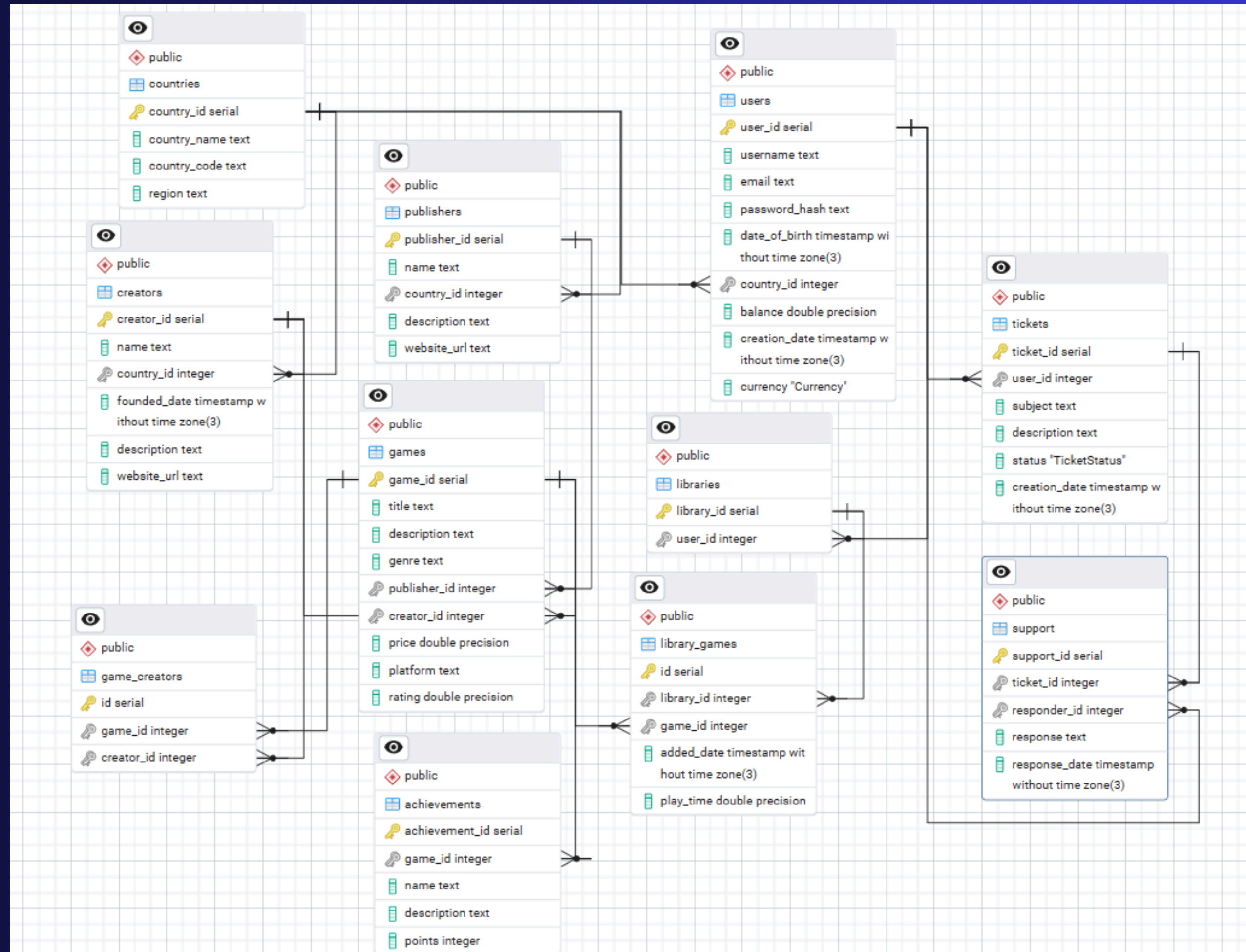**Docker**: Containerization for consistent and portable database environments.

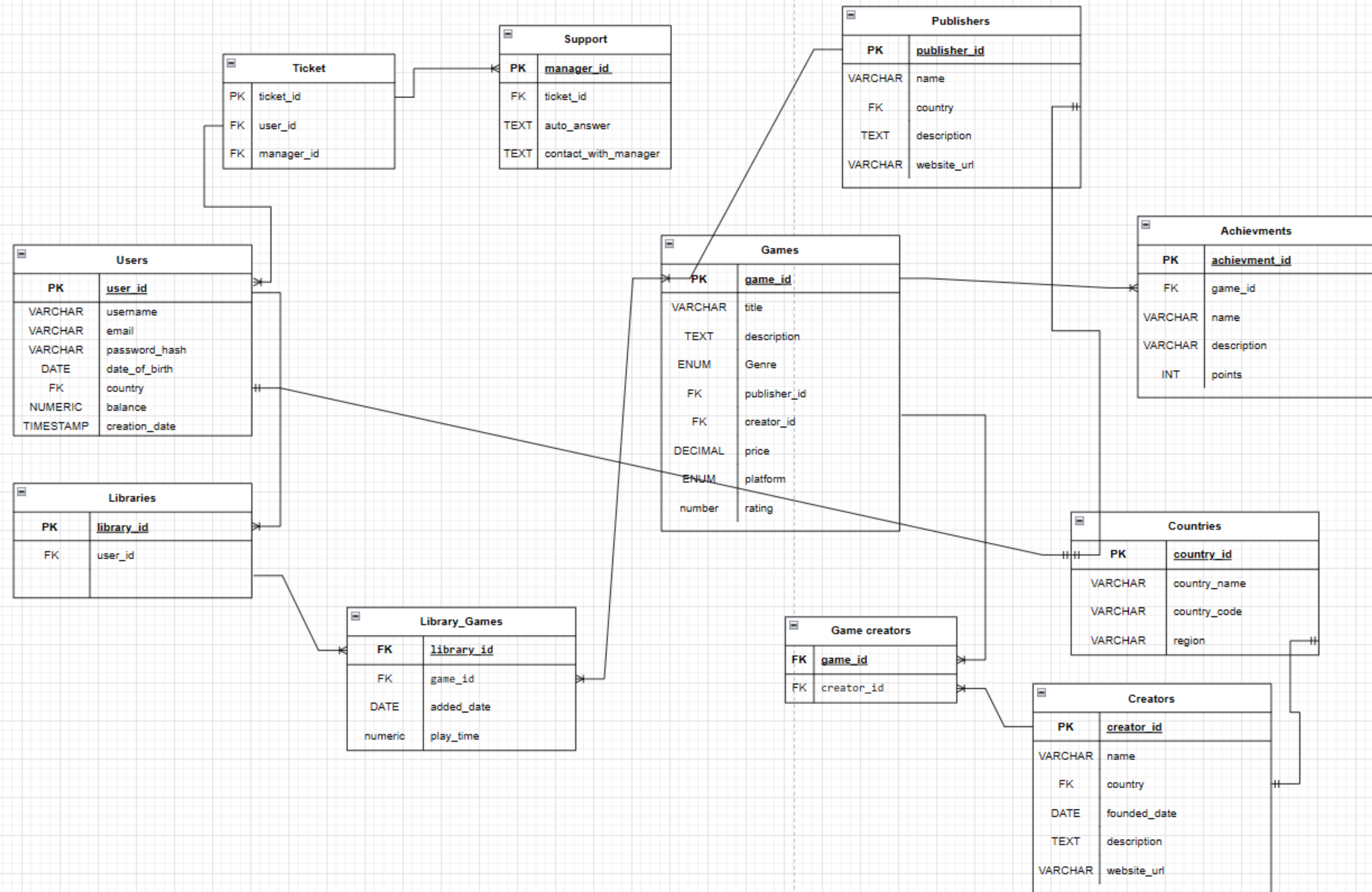**Power BI**: Visualization and reporting for actionable insights.
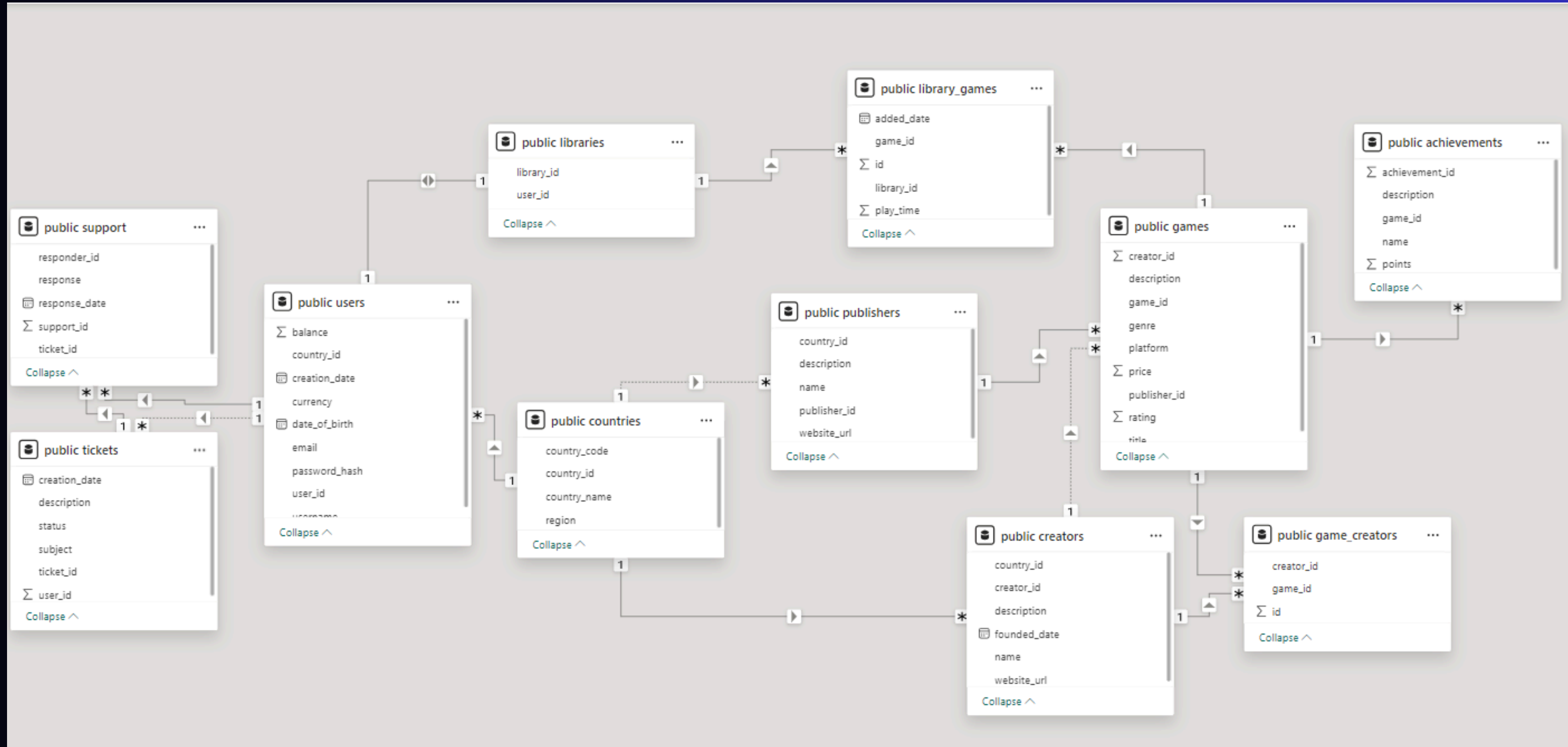
DrawIO: Creating UML schema for database.

ERD for database

countries (public)
- country_id serial
- country_name text
- country_code text
- region text

creators (public)
- creator_id serial
- name text
- country_id integer
- founded_date timestamp without time zone(3)
- description text
- website_url text

game_creators (public)
- id serial
- game_id integer
- creator_id integer

publishers (public)
- publisher_id serial
- name text
- country_id integer
- description text
- website_url text

games (public)
- game_id serial
- title text
- description text
- genre text
- publisher_id integer
- creator_id integer
- price double precision
- platform text
- rating double precision

achievements (public)
- achievement_id serial
- game_id integer
- name text
- description text
- points integer

users (public)
- user_id serial
- username text
- email text
- password_hash text
- date_of_birth timestamp without time zone(3)
- country_id integer
- balance double precision
- creation_date timestamp without time zone(3)
- currency "Currency"

libraries (public)
- library_id serial
- user_id integer

library_games (public)
- id serial
- library_id integer
- game_id integer
- added_date timestamp without time zone(3)
- play_time double precision

tickets (public)
- ticket_id serial
- user_id integer
- subject text
- description text
- status "TicketStatus"
- creation_date timestamp without time zone(3)

support (public)
- support_id serial
- ticket_id integer
- responder_id integer
- response text
- response_date timestamp without time zone(3)

Relational System

Model View from PowerBI

Database (pgAdmin)

```sql
1 ∨  SELECT *
2    FROM publishers
3    JOIN games ON publishers.publisher_id = games.publisher_id
4    JOIN game_creators ON games.game_id = game_creators.game_id
5    JOIN creators ON game_creators.creator_id = creators.creator_id;
6    |
```

Data Output   Messages   Notifications

Showing rows: 1 to 20   Page No: 1   of 1

publisher_id integer	name text	country_id integer	description text	website_url text	game_id integer	title text	description text
3	Mraz, Skiles and Nitzsche	5	Business-focused well-modulated website	https://taut-tenement.com/	9	audentia pecco ventosus	Articulus unus
1	Turner - Waelchi	2	Open-source responsive knowledge user	https://wobbly-cross-contamination.name/	5	blandior currus animi	Curis tamquam
1	Turner - Waelchi	2	Open-source responsive knowledge user	https://wobbly-cross-contamination.name/	10	blanditiis asporto comburo	Correptius acc
3	Mraz, Skiles and Nitzsche	5	Business-focused well-modulated website	https://taut-tenement.com/	7	textor aestivus labore	Aperte surcul
1	Turner - Waelchi	2	Open-source responsive knowledge user	https://wobbly-cross-contamination.name/	10	blanditiis asporto comburo	Correptius acc
3	Mraz, Skiles and Nitzsche	5	Business-focused well-modulated website	https://taut-tenement.com/	9	audentia pecco ventosus	Articulus unus
2	Gleason, Berge and Re…	3	Compatible asynchronous local area network	https://writhing-sailor.org/	4	taedium venustas maxime	Uredo creta va
3	Mraz, Skiles and Nitzsche	5	Business-focused well-modulated website	https://taut-tenement.com/	9	audentia pecco ventosus	Articulus unus
2	Gleason, Berge and Re…	3	Compatible asynchronous local area network	https://writhing-sailor.org/	4	taedium venustas maxime	Uredo creta va

Database (pgAdmin)

```sql
1  SELECT users.email, users.username, support.*, tickets.*
2  FROM users
3  JOIN tickets ON users.user_id = tickets.user_id
4  JOIN support ON tickets.ticket_id = support.ticket_id;
5
```

Data Output   Messages   Notifications

Showing rows: 1 to 30   Page No: 1   of 1

	email text	username text	support_id integer	ticket_id integer	responder_id integer	response text
1	Berenice.Daniel@hotmail.com	Patience4	1	7	2	Subnecto vester admoneo depulso explicabo desipio desidero. Blanditiis deputo absorbeo acer voluptas arces
2	Olaf54@yahoo.com	Easter6	2	5	7	Velum maiores crudelis. Veniam dolorem via nostrum vester usus modi. Somnus copia cohors timor fuga labor
3	Mittie.Powlowski16@yahoo.com	Colten.Mayert	3	4	6	Utor voco vaco torqueo admoveo. Recusandae corporis aut vilis ea consequuntur accusator. Tui ante tibi et.
4	Daphne.Collins68@yahoo.com	Ali.Nienow	4	2	5	Surgo adsidue degusto deinde. Centum terra appono contra velociter. Defleo crur unde conqueror tametsi tres
5	Elinor_Cremin@gmail.com	Justen_Bradtke	5	6	7	Conventus demonstro capto aetas arceo tergum vigilo vaco vester amo. Consequatur culpo constans tego asc
6	Mittie.Powlowski16@yahoo.com	Colten.Mayert	6	4	9	Alter suus adulescens vilis vulnus taceo arceo. Asper ultra pauper alter causa derelinquo delectatio. Suffoco a
7	Berenice.Daniel@hotmail.com	Patience4	7	7	3	Adiuvo deficio amet adulescens laborum vinculum deleniti cur. Dignissimos voro summa tamdiu aut adulescer
8	Daphne.Collins68@yahoo.com	Ali.Nienow	8	2	2	Corona alter aptus degero. Calculus ancilla strues comprehendo. Solus decumbo claustrum uxor thalassinus c
9	Mittie.Powlowski16@yahoo.com	Colten.Mayert	9	4	4	Creta amo solvo. Odit vix calco agnosco patruus uter. Urbs circumvenio depereo verto cur socius sunt.

Total rows: 30   Query complete 00:00:00.040   CRLF   Ln 5, Col 1

Database
(pgAdmin)

```sql
1   SELECT users.*, support.*, tickets.*
2   FROM users
3   JOIN tickets ON users.user_id = tickets.user_id
4   JOIN support ON tickets.ticket_id = support.ticket_id;
5
```

Data Output   Messages   Notifications

Showing rows: 1 to 30   Page No: 1   of 1

| user_id integer	username text	email text	password_hash text	date_of_birth timestamp without time zone (3)	country_id integer	balance double precision	creation_date timestamp without time zone (3)	currency "Currenc"
1	7	Patience4	Berenice.Daniel@hotmail.com	4L2WRfAbH3nAM...	1964-05-26 17:32:55.505	4	213.53	2024-01-06 17:18:09.481	EUR
2	3	Easter6	Olaf54@yahoo.com	1WNeDqJIDC3KVAy	1999-06-17 18:07:40.146	4	792.8	2024-02-25 22:36:14.452	EUR
3	1	Colten.Mayert	Mittie.Powlowski16@yahoo.com	uPDhHzPmbbvLV...	1974-05-26 08:17:56.32	1	695.86	2024-11-16 22:25:48.375	USD
4	8	Ali.Nienow	Daphne.Collins68@yahoo.com	SMfN50fEfi4ABp1	1965-08-06 00:33:33.474	2	517.93	2024-06-22 21:20:07.114	USD
5	4	Justen_Bradtke	Elinor_Cremin@gmail.com	mRWFmGyveoBA...	2000-05-24 04:17:52.565	3	970.82	2024-12-17 03:50:10.067	JPY
6	1	Colten.Mayert	Mittie.Powlowski16@yahoo.com	uPDhHzPmbbvLV...	1974-05-26 08:17:56.32	1	695.86	2024-11-16 22:25:48.375	USD
7	7	Patience4	Berenice.Daniel@hotmail.com	4L2WRfAbH3nAM...	1964-05-26 17:32:55.505	4	213.53	2024-01-06 17:18:09.481	EUR
8	8	Ali.Nienow	Daphne.Collins68@yahoo.com	SMfN50fEfi4ABp1	1965-08-06 00:33:33.474	2	517.93	2024-06-22 21:20:07.114	USD
9	1	Colten.Mayert	Mittie.Powlowski16@yahoo.com	uPDhHzPmbbvLV...	1974-05-26 08:17:56.32	1	695.86	2024-11-16 22:25:48.375	USD

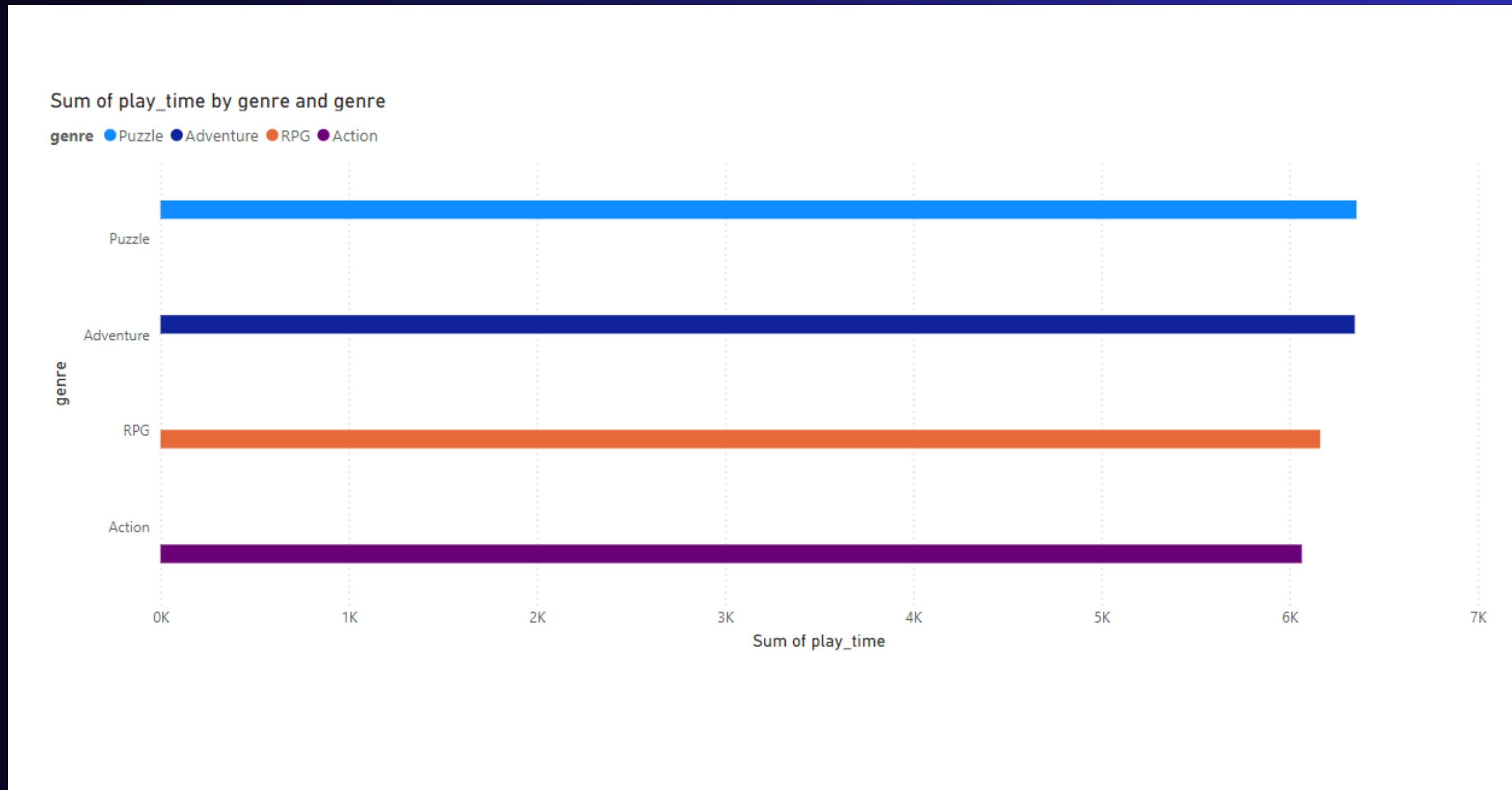Total rows: 30   Query complete 00:00:00.037   CRLF   Ln 5, Col 1

Database visualisation from Power BI
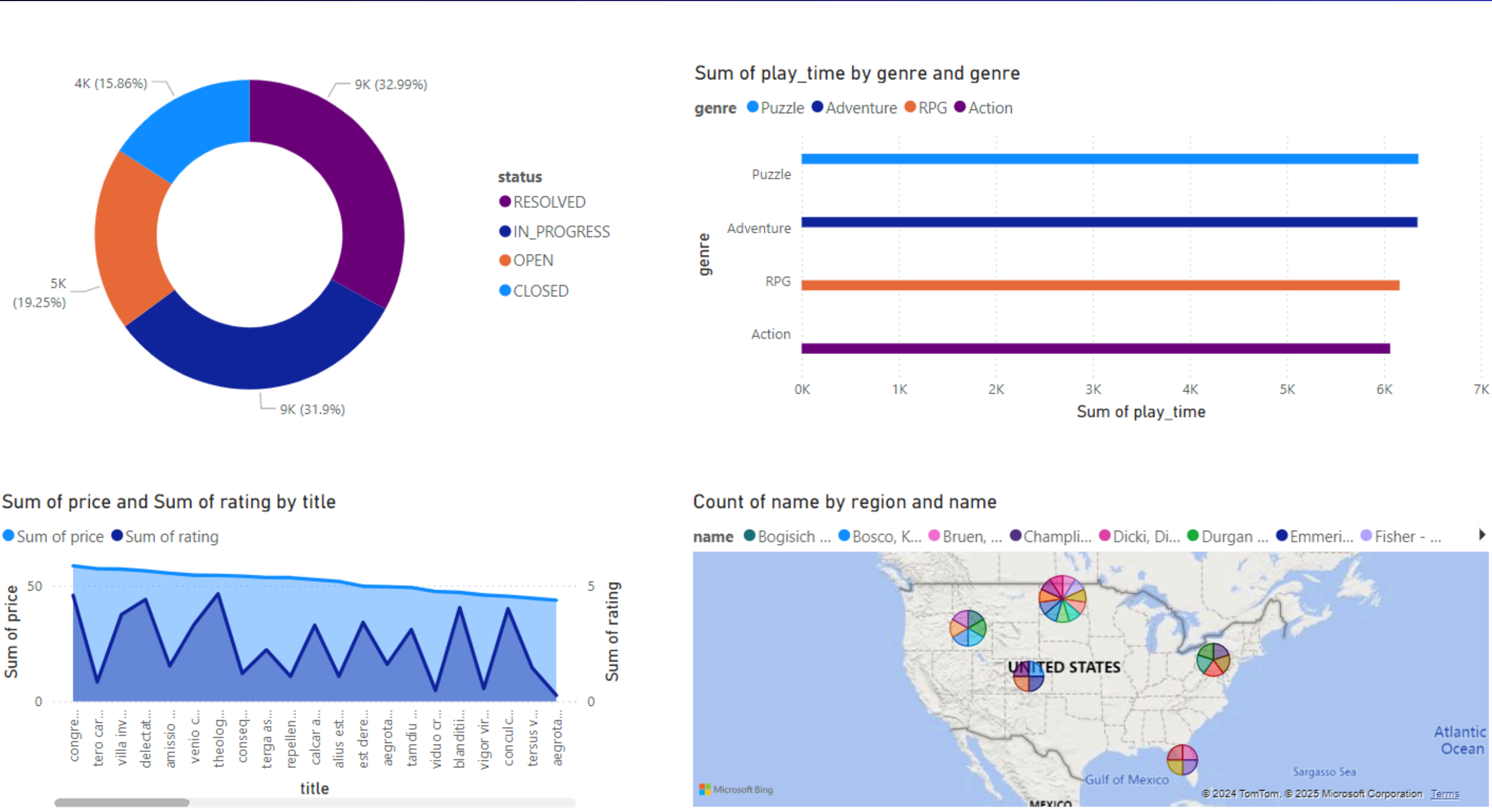
Sum of users ticket status
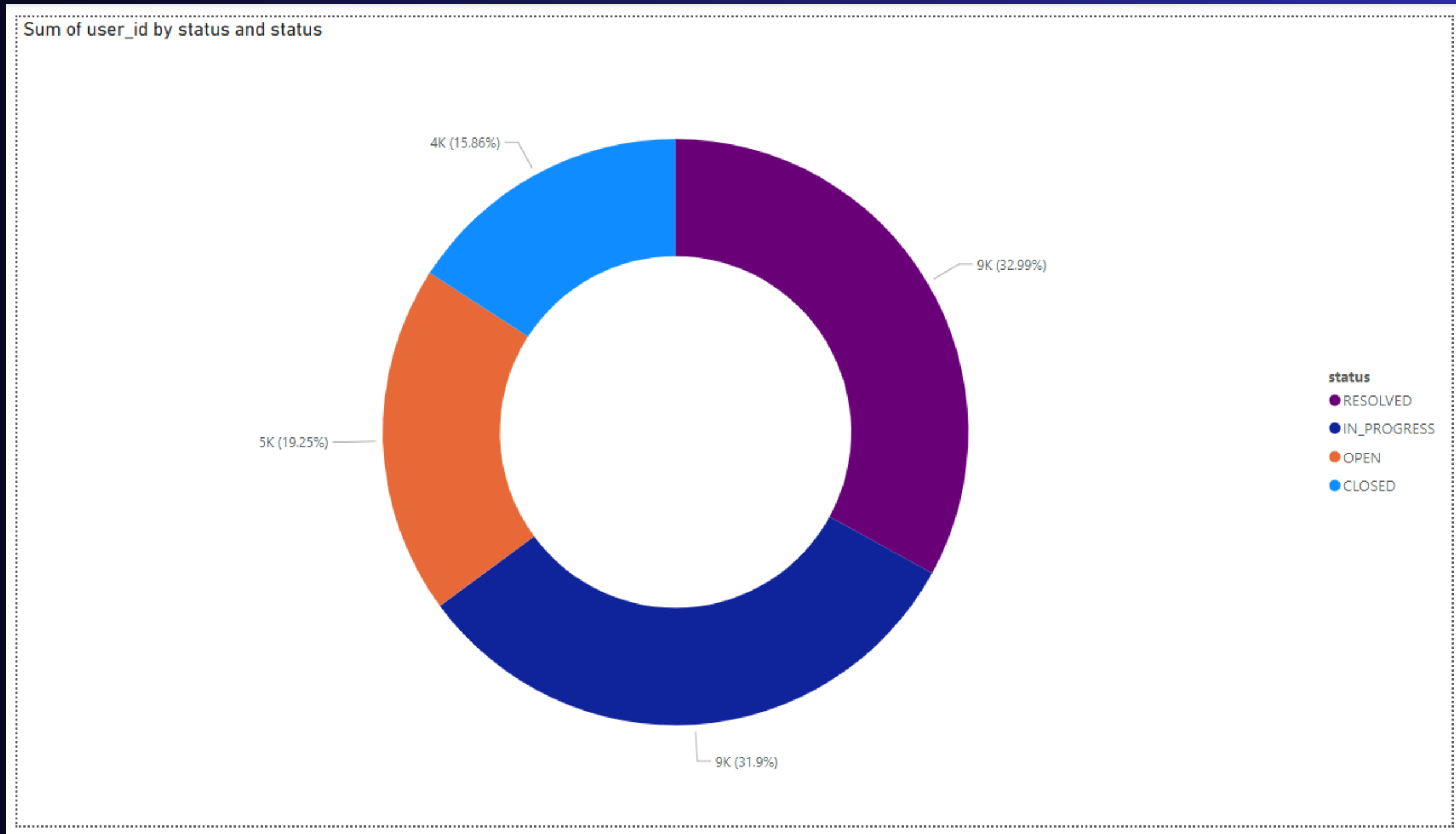
Sum of play time by genre

Sum of play_time by genre and genre

genre ● Puzzle ● Adventure ● RPG ● Action

Sum of price and sum of rating by game title

Sum of price and Sum of rating by title

● Sum of price ● Sum of rating

Map of game creators