

## Valorant Project: All ranked on September and October

Epale! In this text you will see my step by step of my own project where I will use **Power BI (DAX & Power Query)**. Then I will do a little analysis of the data provided in the graphs. If you want to see, you can do it in this [link](#).

### About this project

Video games are one of my hobbies, so I decided to use this data to put into practice some concepts learned about Power BI and other good practices (star modeling and DAX measurements). This is a type of informative report, there is little projection in them, because I only used two months and the truth is I don't play much.

### About the game

**Valorant** is a 5v5 tactical shooter game, developed and published by **Riot Games**. In this there are different maps and characters which are called "agents", one team is the attackers and the defenders, whoever wins 13 rounds wins the game, after 12 rounds there is a change of sides. The goal is for the attackers to plant the "spike" so that it explodes and win the round, for the defenders it is that they fail to plant the bomb or deactivate it before it explodes, if all the players of a team are eliminated before planting the spike, then the other team automatically wins the round. My elo of silver 3 – gold 1.

### Steps

In this text I describe the steps: Ask, Prepare, Process, Analyze, Share, Act.

### Ask

The objective that has been set in this project is to see the evolution that I have had in the last two months playing, so we have asked ourselves different questions:

- What would be the KDA, ACS and win rate for these two months?
- Is there an improvement after two months playing almost every day?
- Who would be my worst agent, my best agent and the most played?
- What would be my worst map, my best map and the most played?

### Prepare

For this project I only used the ranked rankings for the months of September (09/01) and October (10/30). [Here](#) you can see my game profile.

All the games were played one by one by me, since this project was developed throughout October.

### Type of data

The data is in an .xlsx (Excel) file.

### They are organized

It is organized in three different sheets, one for the games, another for the agents and another for the maps.

Sort and filter data

- Matches: 138 rows and 11 columns.
- Agents: 24 rows and 8 columns.
- Maps: 10 rows and 7 columns.

Determine the credibility of the data

The "ROCCC" process is often used to determine the credibility of data. ROCCC is an acronym that stands for **R**eliable, **O**riginal, **C**omprehensive, **C**urrent, **C**ited.

The data is Reliable because it is licensed by Riot Games, it is Original since it is captured by me, it is Comprehensive because it covers the entire study that we want to carry out, Current because it is from the month of September and October 2023 and is cited from a source specific.

Prepare the data

The first thing was to load the data into Power BI from the xlsx file.

Match sheet (10 rows): FAC-Matches

Date	AgentID	MapID	Result	K	D	A	ACS	Rank	KDA	Id
01/09/2023	3	4	Lose	14	18	9	205	8	0,85	1
01/09/2023	3	2	Win	20	15	12	278	1	1,45	2
01/09/2023	5	2	Win	26	17	8	328	1	1,60	3
02/09/2023	4	9	Win	10	17	4	138	9	0,62	4
02/09/2023	1	1	Lose	11	21	15	162	8	0,63	5
02/09/2023	3	3	Lose	3	15	4	112	10	0,24	6
02/09/2023	3	9	Win	13	15	8	143	9	0,95	7
03/09/2023	22	2	Win	11	19	9	154	7	0,65	8
06/09/2023	5	2	Lose	10	16	5	174	8	0,67	9
06/09/2023	22	3	Lose	17	21	6	162	10	0,85	10

Agent sheet (all ranks): Dim-Agents

Id	Agent	Class	Nationality	Name	Codename	Photo	Role
1	Brimstone	Human	USA	Liam Byrne	Sarge, Brimstone	https://titles.trackercdn.com/valorant-api/agents/9f0d8ba9-4140-b941-57d3-a7ad57c6b417/displayicon.png	Controller
2	Viper	Human	USA	Sabine Callas	Pandemic	https://titles.trackercdn.com/valorant-api/agents/707eab51-4836-1488-046a-cda6b1494859/displayicon.png	Controller
3	Omen	Radiant	Unknown	Unknown	Wraith	https://titles.trackercdn.com/valorant-api/agents/8e253930-4c05-31dd-1b6c-968525494517/displayicon.png	Controller
4	Killjoy	Human	Germany	Klara Böhringer	Killjoy	https://titles.trackercdn.com/valorant-api/agents/1e58de9c-4950-5125-93e9-a0aee9f98746/displayicon.png	Sentinel
5	Cypher	Human	Marrocco	Amir El Amari	Gumshoe	https://titles.trackercdn.com/valorant-api/agents/117ed9e3-49f3-6512-3ccf-0cada7e3823b/displayicon.png	Sentinel
6	Sova	Human	Russia	Sasha Novikov	Hunter, Sova	https://titles.trackercdn.com/valorant-api/agents/320b2a48-4d9b-a075-30f1-1f93a9b638fa/displayicon.png	Initiator
7	Sage	Radiant	China	Ling Ying Wei	Thorne	https://titles.trackercdn.com/valorant-api/agents/569fd95-4d10-43ab-ca70-79becc718b46/displayicon.png	Sentinel
8	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
9	Phonetix	Radiant	United Kingdom	Jamie Adeyemi	Phnx, Apilo	https://titles.trackercdn.com/valorant-api/agents/eb93336a-449b-9c1b-0a54-a891f7921d69/displayicon.png	Duelist
10	Jett	Radiant	South Korea	Sunwoo Han	Woosh, Wushu, Hawk	https://titles.trackercdn.com/valorant-api/agents/add6443a-41bd-e414-16ad-e58d267f4e95/displayicon.png	Duelist
11	Reyna	Radiant	Mexico	Zyanya Mondragón	Vampire	https://titles.trackercdn.com/valorant-api/agents/a3bfb853-43b2-7238-a4f1-ad90e9e46bcc/displayicon.png	Duelist
12	Raze	Tech User	Brazil	Tayane Alves	Clay	https://titles.trackercdn.com/valorant-api/agents/f94c3b30-42be-e959-889c-5aa313dba261/displayicon.png	Duelist
13	Breach	Human	Sweden	Erik Torsten	Breach	https://titles.trackercdn.com/valorant-api/agents/5f8d3a7f-467b-97f3-062c-13ac203c006/displayicon.png	Initiator
14	Skye	Radiant	Australia	Kirra Foster	Guide	https://titles.trackercdn.com/valorant-api/agents/6f2a04ca-43e0-be17-7f36-b3908627744d/displayicon.png	Initiator
15	Yoru	Radiant	Japan	Ryo Kiritani	Stealth	https://titles.trackercdn.com/valorant-api/agents/7f94d92c-4234-0a36-9646-3a87eb8b5c89/displayicon.png	Duelist
16	Astra	Radiant	Ghana	Efia Danso	Rift	https://titles.trackercdn.com/valorant-api/agents/41fb69c1-4189-7b37-f117-bcaf1e96f1bf/displayicon.png	Controller
17	KAY/O	Cybernetic	Unknown	Unknown	Grenadier	https://titles.trackercdn.com/valorant-api/agents/601dbbe7-43ce-be57-2a40-4ab24953621/displayicon.png	Initiator
18	Chamber	Human	France	Vincent Fabron	Deadeye	https://titles.trackercdn.com/valorant-api/agents/22697a3d-45bf-8dd7-4fec-84a9e28c69d7/displayicon.png	Sentinel
19	Neon	Radiant	Phillipinas	Tala Nicole Dimaapi Valdez	Sprinter	https://titles.trackercdn.com/valorant-api/agents/bb2a4828-46eb-8cd1-e765-15848195d71/displayicon.png	Duelist
20	Fade	Radiant	Türkiye	Hazal Eyletmez	BountyHunter	https://titles.trackercdn.com/valorant-api/agents/dade69b4-4f5a-8528-247b-219e5a1facd6/displayicon.png	Initiator
21	Harbor	Human	India	Varun Batra	Mage	https://titles.trackercdn.com/valorant-api/agents/95b78ed7-4637-86d9-7e41-71ba8c293152/displayicon.png	Controller
22	Gekko	Unconfirmed	USA	Mateo Armendáriz De la Fuente	Aggrobot	https://titles.trackercdn.com/valorant-api/agents/e370fa57-4757-3604-3648-499e1f642d3f/displayicon.png	Initiator
23	Deadlock	Human	Norway	Iselin	Cable	https://titles.trackercdn.com/valorant-api/agents/cc8b64c8-4b25-4f99-6e7f-37b4da43d235/displayicon.png	Sentinel
24	Iso	Radiant	China	Li Zhao Yu	The Dead Lilac	https://titles.trackercdn.com/valorant-api/agents/0e38b510-41a8-5780-5e8f-568b2a4f2d6c/displayicon.png	Duelist

Map sheet (all rows): Dim-Maps

Id	Map	Location	Country	Coordinates	Ubication	Photo
1	Bind	Rabat	Marocco	34°2'0" N 6°51'0" W	Rabat, Marocco	https://blitz-cdn.blitz.gg/450x0/blitz/val/maps/bind/bind-hero-new.jpeg
2	Haven	Thimphu	Butan	27°28'0" N 89°38'30" E	Thimphu, Butan	https://blitz-cdn.blitz.gg/blitz/val/maps/haven/haven-hero-new.jpeg
3	Split	Tokyo	Japan	35°41'23" N 139°41'32" E	Tokyo, Japan	https://blitz-cdn.blitz.gg/blitz/val/maps/split/split-hero-new.jpeg
4	Ascent	Venice	Italy	45°26'15" N 12°20'9" E	Venice, Italy	https://blitz-cdn.blitz.gg/blitz/val/maps/ascent/ascent-hero-new.jpeg
5	Icebox	Bennett	Russia	76°44'0" N 149°30'0" E	Bennett, Russia	https://blitz-cdn.blitz.gg/450x0/blitz/val/maps/icebox/icebox-hero-new.jpg
6	Breeze	Bermudas	Atlantic	26°11'06" N 71°10'31" W	Bermudas, Atlantic	https://blitz-cdn.blitz.gg/800x0/blitz/val/maps/breeze/breeze-hero-new.jpg
7	Fracture	Nuevo Mexico	USA	35°48'18" N 106°08'19" W	Nuevo Mexico, USA	https://blitz-cdn.blitz.gg/blitz/val/maps/fracture/fracture-hero.jpg
8	Pearl	Lisbon	Portugal	38°42'43" N 9°08'27" W	Lisbon, Portugal	https://blitz-cdn.blitz.gg/blitz/val/maps/pearl/pearl-hero.jpg
9	Lotus	Karnataka	India	14°07'03" N 74°53'21" E	Karnataka, India	https://blitz-cdn.blitz.gg/blitz/val/maps/lotus/lotus.webp
10	Sunset	Los Angeles	USA	34°2'2" N 118°12'16" W	Los Angeles, USA	https://blitz-cdn.blitz.gg/blitz/val/maps/sunset/sunset-hero.webp

Each of the tables has an ID. The **FAC-Matches** table would be the **fact table**, since this would be the table with all the transactions, while the other two are dimensions, since they would be the agents such as the clients and maps like products, for example.

Process

After having these three tables in Power BI we add one more table, the **Dim-Calendar** table, using the following script:

```
Dim-Calendar = ADDCOLUMNS (
CALENDAR ( DATE( YEAR ( MIN ( 'FAC-Matches'[Date] ) ), 01, 01 ), DATE( YEAR( MAX( 'FAC-Matches'[Date] ) ), 12, 31 ) ),
"FechaSK", FORMAT ( [Date], "YYYYMMDD" ),
"#Año", YEAR ( [Date] ),
"#Trimestre", QUARTER ( [Date] ),
"#Mes", MONTH ( [Date] ),
"#Día", DAY ( [Date] ),
"Trimestre", "T" & FORMAT ( [Date], "Q" ),
"Mes", FORMAT ( [Date], "MMMM" ),
"MesCorto", FORMAT ( [Date], "MMM" ),
"#DíaSemana", WEEKDAY ( [Date], 2 ),
"#SemanaAño", WEEKNUM ( [Date], 2 ),
"CierreSemana", ( [Date] + 7 - WEEKDAY( [Date], 2 ) ),
"Día", FORMAT ( [Date], "DDDD" ),
"DíaCorto", FORMAT ( [Date], "DDD" ),
"AñoTrimestre", FORMAT ( [Date], "YYYY" ) & "/" & "T" & FORMAT ( [Date], "Q" ),
"AñoMes", FORMAT ( [Date], "YYYY/MM" ),
"AñoMesCorto", FORMAT ( [Date], "YYYY/mmm" ),
"InicioMes", EOMONTH( [Date], -1 ) + 1,
"FinMes", EOMONTH( [Date], 0 ) )
```

This generates a table with all dates and types of date representations, it has only the current year (365 rows).

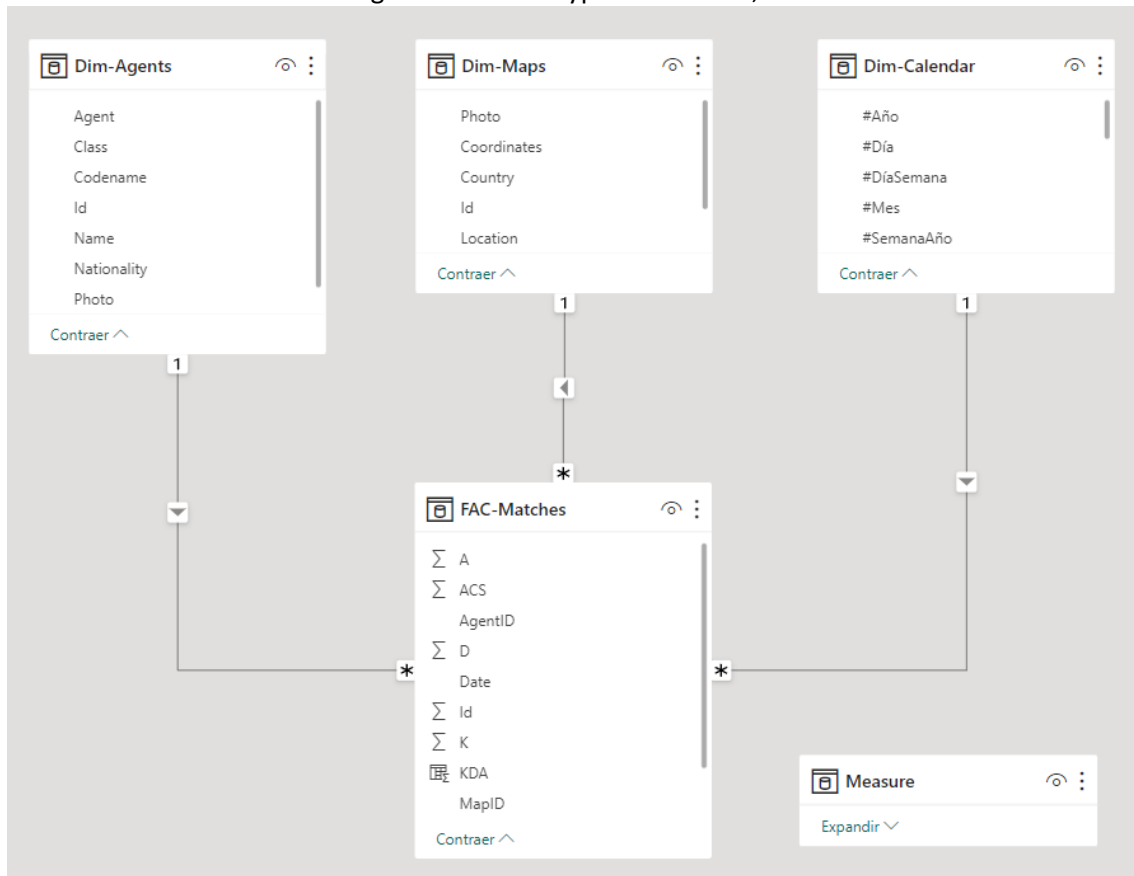
Date	FechaSK	#Año	#Trimestre	#Mes	#Día	Trimestre	Mes	MesCorto	#DíaSemana	#SemanaAño	CierreSemana	Día	DíaCorto	AñoTrimestre
01/07/2023	20230701	2023	3	7	1	T3	julio	jul	6	27	domingo, 2 de julio de 2023	sábado	sá.	2023/T3
02/07/2023	20230702	2023	3	7	2	T3	julio	jul	7	27	domingo, 2 de julio de 2023	domingo	do.	2023/T3
03/07/2023	20230703	2023	3	7	3	T3	julio	jul	1	28	domingo, 9 de julio de 2023	lunes	lu.	2023/T3
04/07/2023	20230704	2023	3	7	4	T3	julio	jul	2	28	domingo, 9 de julio de 2023	martes	ma.	2023/T3
05/07/2023	20230705	2023	3	7	5	T3	julio	jul	3	28	domingo, 9 de julio de 2023	miércoles	mi.	2023/T3
06/07/2023	20230706	2023	3	7	6	T3	julio	jul	4	28	domingo, 9 de julio de 2023	jueves	ju.	2023/T3
07/07/2023	20230707	2023	3	7	7	T3	julio	jul	5	28	domingo, 9 de julio de 2023	viernes	vi.	2023/T3
08/07/2023	20230708	2023	3	7	8	T3	julio	jul	6	28	domingo, 9 de julio de 2023	sábado	sá.	2023/T3
09/07/2023	20230709	2023	3	7	9	T3	julio	jul	7	28	domingo, 9 de julio de 2023	domingo	do.	2023/T3

#DíaSemana	#SemanaAño	CierreSemana	Día	DíaCorto	AñoTrimestre	Año#Mes	AñoMesCorto	InicioMes	FinMes	Día#Mes
6	27	domingo, 2 de julio de 2023	sábado	sá.	2023/T3	2023/07	2023/jul	sábado, 1 de julio de 2023	lunes, 31 de julio de 2023	07/01
7	27	domingo, 2 de julio de 2023	domingo	do.	2023/T3	2023/07	2023/jul	sábado, 1 de julio de 2023	lunes, 31 de julio de 2023	07/02
1	28	domingo, 9 de julio de 2023	lunes	lu.	2023/T3	2023/07	2023/jul	sábado, 1 de julio de 2023	lunes, 31 de julio de 2023	07/03
2	28	domingo, 9 de julio de 2023	martes	ma.	2023/T3	2023/07	2023/jul	sábado, 1 de julio de 2023	lunes, 31 de julio de 2023	07/04
3	28	domingo, 9 de julio de 2023	miércoles	mi.	2023/T3	2023/07	2023/jul	sábado, 1 de julio de 2023	lunes, 31 de julio de 2023	07/05
4	28	domingo, 9 de julio de 2023	jueves	ju.	2023/T3	2023/07	2023/jul	sábado, 1 de julio de 2023	lunes, 31 de julio de 2023	07/06
5	28	domingo, 9 de julio de 2023	viernes	vi.	2023/T3	2023/07	2023/jul	sábado, 1 de julio de 2023	lunes, 31 de julio de 2023	07/07
6	28	domingo, 9 de julio de 2023	sábado	sá.	2023/T3	2023/07	2023/jul	sábado, 1 de julio de 2023	lunes, 31 de julio de 2023	07/08
7	28	domingo, 9 de julio de 2023	domingo	do.	2023/T3	2023/07	2023/jul	sábado, 1 de julio de 2023	lunes, 31 de julio de 2023	07/09
1	29	domingo, 16 de julio de 2023	lunes	lu.	2023/T3	2023/07	2023/jul	sábado, 1 de julio de 2023	lunes, 31 de julio de 2023	07/10

At this point you have to sort the tables by each of the IDs and the Calendar table by the date, in addition to marking “Date” of Dim-Calendar as “the date table”.

## Data model

And with these four tables we generate a star-type data model, which would be as follows:



They are located this way so that they are better to understand, but it is a **star model**. The “**Measure**” table is the one that contains all the measurements calculated from the data using DAX.

At this point you can move on to the analysis part, where I will show some measurements carried out, since there are many.

## Analyze

Power BI and DAX were used for this analysis.

## Data

The first thing I made is this general table of games, where I will explain each term. Each of them is obtained directly from the games, except for **KDA**.

Date: The date of each game played.

Rank (Clasification): Each game has 10 players and this would be the position I found among those 10 players.

Agent: Agent played in the game.

Role: Each agent has a role, there are 4 roles within the game (Controller/Sentinel/Initiator/Duelist) and this column describes the role played.

Map: Cada partida se juega en un mapa diferente, aquí el nombre.

Result: The result of the game (Win/Lost).

**KDA:** The KDA formula is created by me, but the term is commonly used, it represents Kill, Death and Assistance. It will be explained in the Measures section.

ACS: Average Combat Score.

Date	Rank	Agent	Role	Map	Result	KDA	Kill	Death	Assi	ACS
01/09/2023	8	Omen	Controller	Ascent	Lose	0,85	14	18	9	205
01/09/2023	1	Omen	Controller	Haven	Win	1,45	20	15	12	278
01/09/2023	1	Cypher	Sentinel	Haven	Win	1,60	26	17	8	328
02/09/2023	10	Omen	Controller	Split	Lose	0,24	3	15	4	112
02/09/2023	9	Killjoy	Sentinel	Lotus	Win	0,62	10	17	4	138
02/09/2023	8	Brimstone	Controller	Bind	Lose	0,63	11	21	15	162
02/09/2023	9	Omen	Controller	Lotus	Win	0,95	13	15	8	143
03/09/2023	7	Gekko	Initiator	Haven	Win	0,65	11	19	9	154
06/09/2023	8	Cypher	Sentinel	Haven	Lose	0,67	10	16	5	174
06/09/2023	10	Gekko	Initiator	Split	Lose	0,85	17	21	6	162
07/09/2023	6	Omen	Controller	Lotus	Win	1,22	18	16	10	235
07/09/2023	1	Killjoy	Sentinel	Lotus	Win	1,53	21	14	3	278
08/09/2023	9	Cypher	Sentinel	Haven	Lose	0,36	5	16	5	117
08/09/2023	9	Omen	Controller	Sunset	Lose	0,38	6	18	5	101
08/09/2023	10	Brimstone	Controller	Bind	Lose	0,60	11	20	6	136

Apart from this data, which would mostly be from the fact table (except for role and map and agent name), we have data from the dimension tables:

- Dim-Agents: Where is the agent ID, agent name, real name, another code name, the role, the country from which it comes, the type of agent it is (human/radiant) and a url of the photo of it.
- Dim-Maps: Where is the map ID, location, country, coordinates and a url of the map photo.
  - The location column would be location+country and was created with DAX by the following expression:  
Ubication = 'Dim-Maps'[Location] & ", " & 'Dim-Maps'[Country]

**NOTE:** These two tables were also created by me, collecting the information from the web.

## Measures

### Number of matches (Matches/Win/Lose)

Matches = COUNTROWS('FAC-Matches')

Wins = CALCULATE([Matches], 'FAC-Matches'[Result] = "Win")

Losses = CALCULATE([Matches], 'FAC-Matches'[Result] = "Lose")

**NOTA:** Si en la carta aparece "en blanco", debemos usar "WinsConCero" and "LostConCero"

WinsConCero = IF([Wins] = 0, 0, [Wins])

LossesConCero = IF([Losses] = 0, 0, [Losses])

This is because if Wins = 0, then the card reflects "blank", thanks to this it places "0".



We played a total of 138 games, with 69 wins and 69 losses.

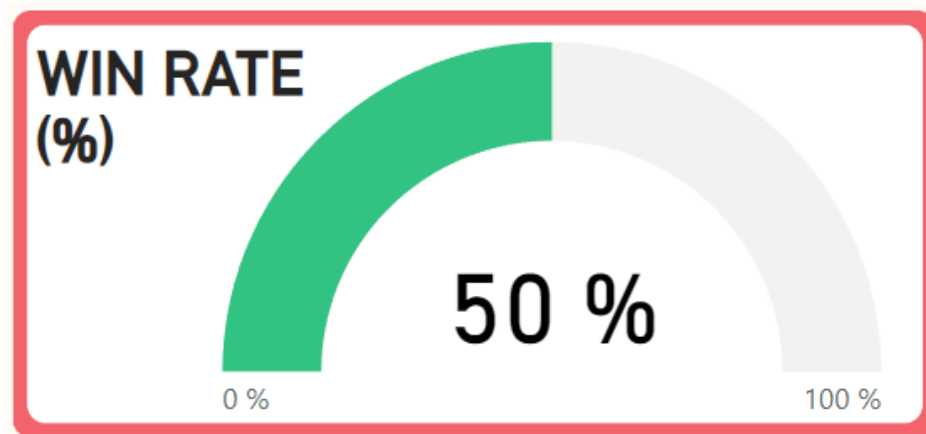
### Win Rate (%)

This helps us calculate the winning percentage, given by the following expression:

Win Rate = DIVIDE([Wins], [Matches])

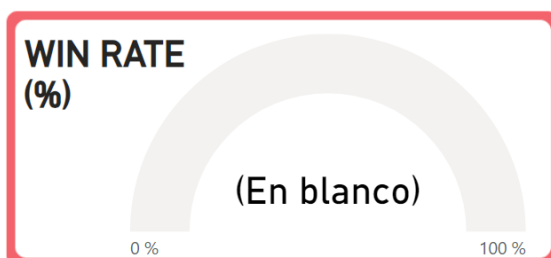
**NOTE:** Here, the same as in the previous one, we also have a "WinRateConCero"

WinRateConCero = IF([Win Rate] = 0, 0, [Win Rate])



50% of the games have been won.

Example if you did not have WinRateConCero:



### Average per match

In this section several measurements were made: K, D, A, ACS and KDA.

The first 4 (K/D/A/ACS) are measurements as is taken from the games, where each one would be:

- **K** (Kills): Which represents the enemies killed in each game.

$$\text{Kills} = \text{AVERAGE}(\text{'FAC-Matches' [K]})$$

- **D** (Deaths): Which represents the times they killed us in each game.

$$\text{Deaths} = \text{AVERAGE}(\text{'FAC-Matches' [D]})$$

- **A** (Assistance): Which represents the times we help a teammate eliminate an enemy.

$$\text{Assis} = \text{AVERAGE}(\text{'FAC-Matches' [A]})$$

- **ACS** (Average Combat Score): It is the average damage done per game.

$$\text{ACS} = \text{AVERAGE}(\text{'FAC-Matches' [ACS]})$$

**NOTE:** I decided to make measurements so I didn't have to use the entire columns of the table.

To calculate the **KDA**, the first three were taken into account, since it could be an approximate assessment of the game we have played, defined as follows:

$$\text{KDA} = \text{DIVIDE}(\text{SUM('FAC-Matches' [K])} + (\text{SUM('FAC-Matches' [A])} * 0.15), \text{SUM('FAC-Matches' [D])})$$

Where, 1 K counts the same as 1 D, while 1 A counts as nothing more than 0.15. That is to say that you need more than 6 A to have 1 extra K, this is because more A is usually obtained for less work.

With this we create the following table:

AVG PER MATCH			
KDA - Kills/Deaths/Assis - ACS			
0,93	-	13/16/6	- 189

This would be our average per game (0.93). I concluded it as negative, with a KDA < 1, a kind of "fail".

## Graphs

With the data and measurements presented above, I made several graphs that will be presented below.

**NOTE:** Tooltip are nothing more than additional functions that allow us to visualize a set of data, sometimes they are simple like seeing the amount of data and other times they are more complex.

## Agents

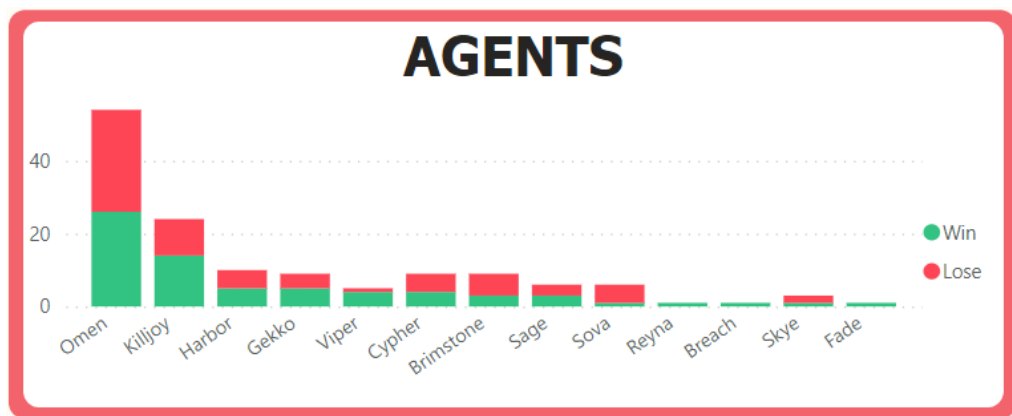
Stacked bar chart to see the wins and losses I have with each agent.

Making the graph:

Eje X  
Agent

Eje Y  
Win   
Lose

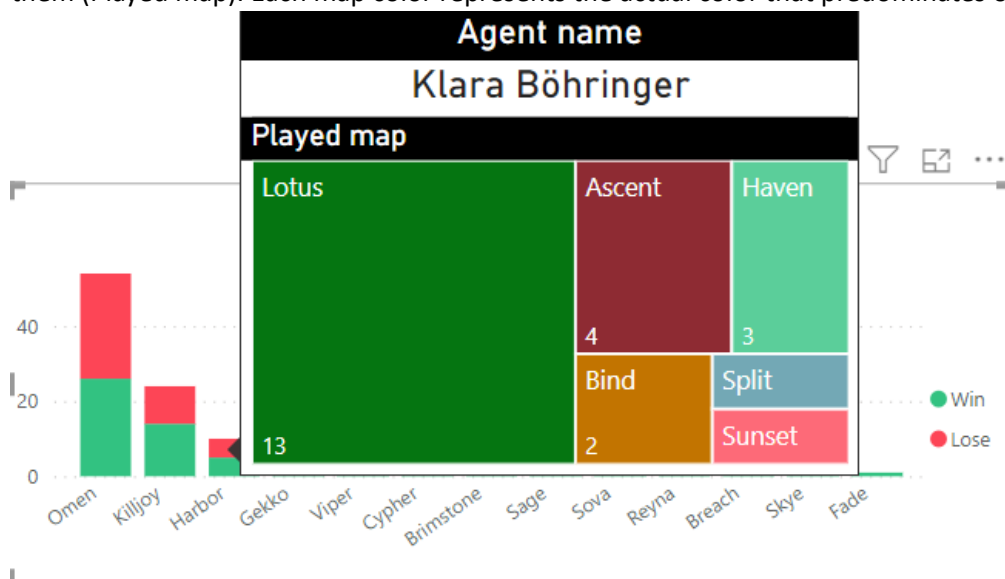
Graph:



In this graph you can see that the most used agent is Omen with well over 40, followed by Killjoy with over 20. They are ordered by number of victories.

## Tooltip (Agents)

I placed the real name of each agent (Agent name) and the maps in which I have played with them (Played map). Each map color represents the actual color that predominates on it.





In this case you see the name of Killjoy, which is Klara Böhringer and the most played map is Lotus, which is like a kind of jungle in India, that's why it is dark green.

Maps

Bar graph applied to see the wins and losses I have with each map.

Making the graph:

Eje X

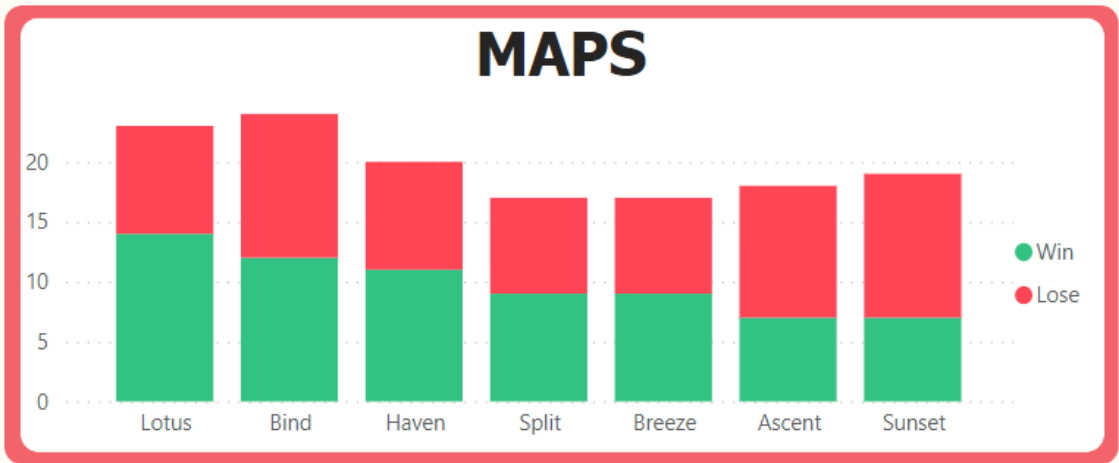
Map

Eje Y

Win

Lose

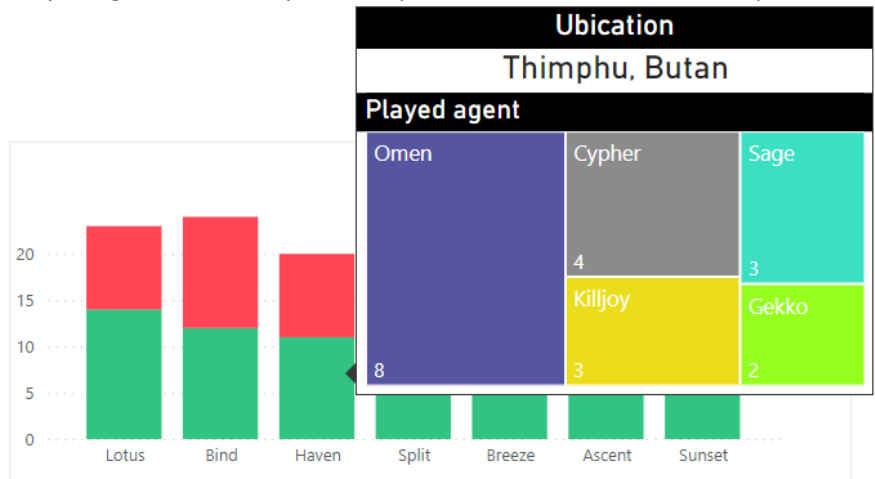
Graph:



In this graph you can see that the map in which I have won the most times is Lotus, but the one in which I have played the most times is Bind, both with more than 20. While my worst maps are Ascent and Sunset.

Tooltip (Maps)

I placed the location of each map (Ubication) and the agents in which I have played with them (Played agent). Each map color represents the actual color that predominates on it.



In this Tooltip you can see the location of Haven, this is in Thimphu, Bhutan. And the agent I have played the most on this map is Omen, followed by Cypher.

### Results of matchs vs date

Stacked bar chart that has all the games by the date they were played, divided by win/lose.

Making the graph:

Eje X

Date

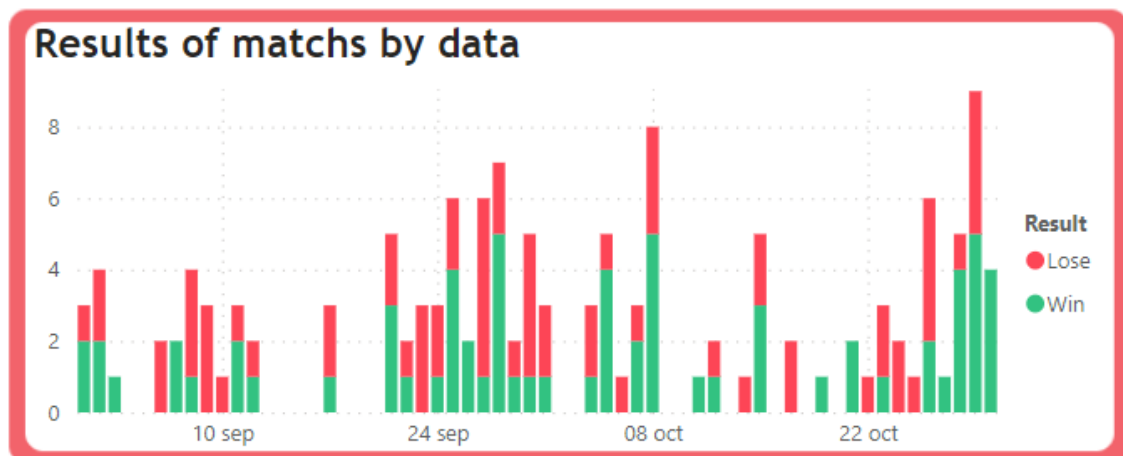
Eje Y

Matches

Leyenda

Result

Gráfico:

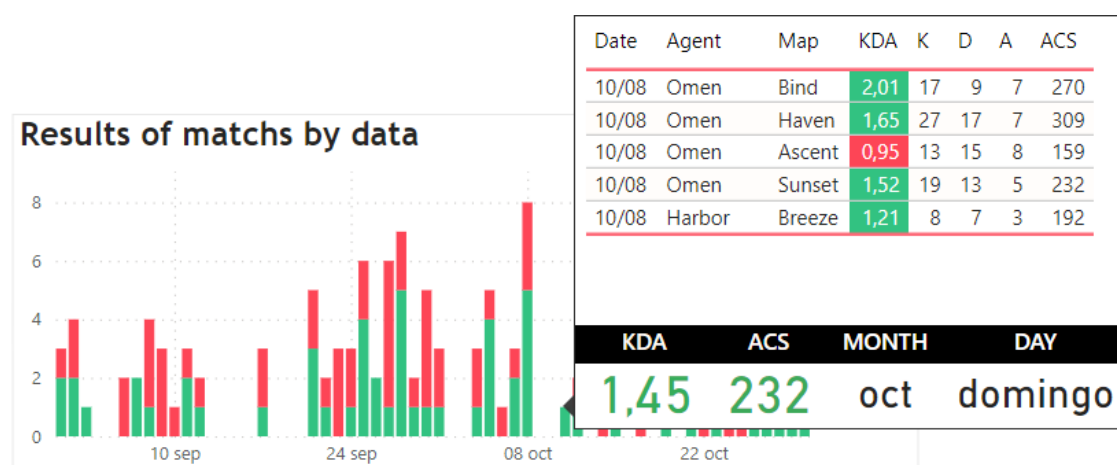
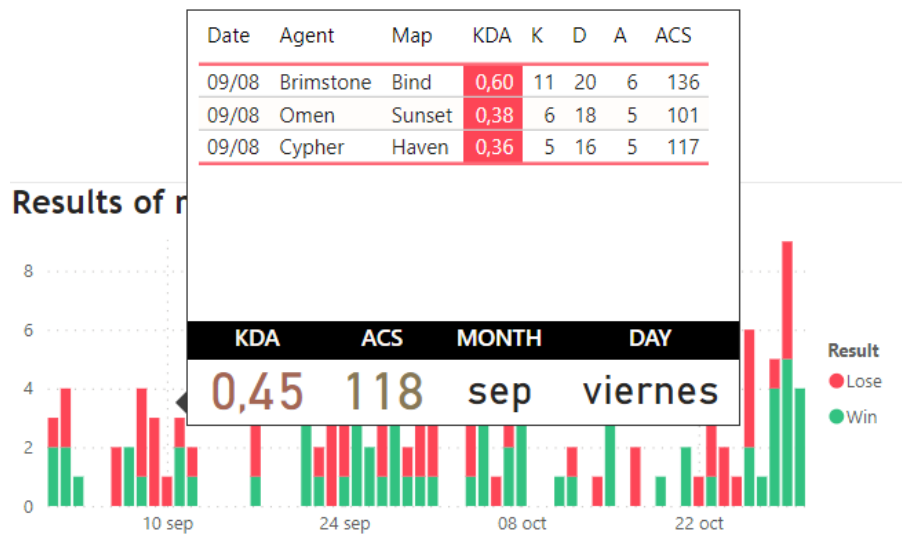


In this graph you can see that the number of games (win/lose) per day, we can see that most days less than 4 games were played, some days it was not played and the maximum is above eight (9 matches).

### Tooltip (results of matchs vs date)

It contains a small table with columns (date/agent/map/KDA/K/D/A/ACS and below are some cards with the average KDA and ACS of those games, as well as the month and day they were played.

**NOTE:** I have my computer and the program in Spanish, so it generated the calendar columns in Spanish and that is why the day and month are in Spanish, as well as other things, such as the segmenters, I hope you understand.



There are two images because the Tooltip changes depending on whether we are on one color of the bar or another, since each one reflects the games associated with it, green is win and red is lose.

The KDA column in the table has a conditional format, as I said  $KDA < 1$  is failed, so less than 1 is red and greater than 1 is green. While the KDA and ACS cards have another conditional format that is governed the same by green/red, but this is continuous, in the case of KDA it is the same, in the case of ACS the midpoint is 200.

### KDA & ACS

This is one of the graphs that has more information. It is a graph of grouped columns and lines, where the columns are the KDA and the solid line represents the ACS, both represented on the Y axis, while the X axis has the dates. The days that there is no data are days that I did not play.

Making the graph:

Eje X

Date

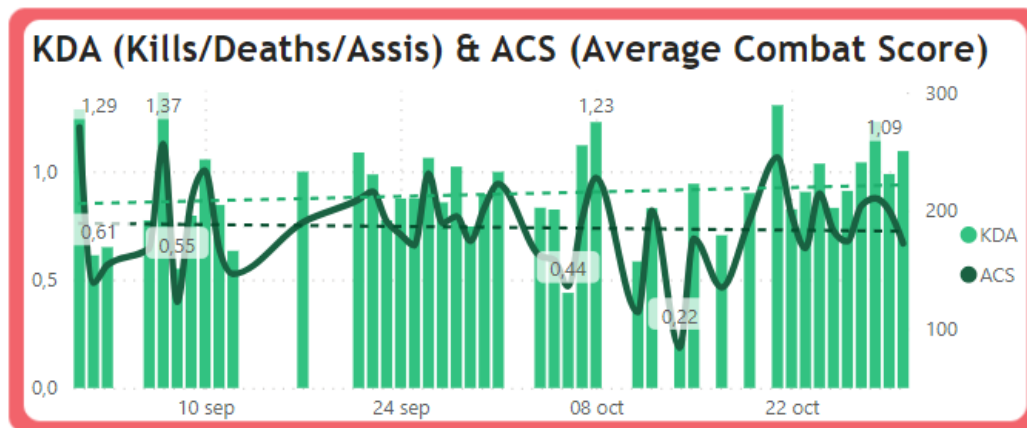
Eje Y de columna

KDA

Eje Y de línea

ACS

Graph:



It must be taken into account that the average KDA was close to 1 and the ACS was close to 200. Since these would serve to evaluate the trends. **NOTE:** Tests were done with the median and it is similar to the mean, so the mean was used.

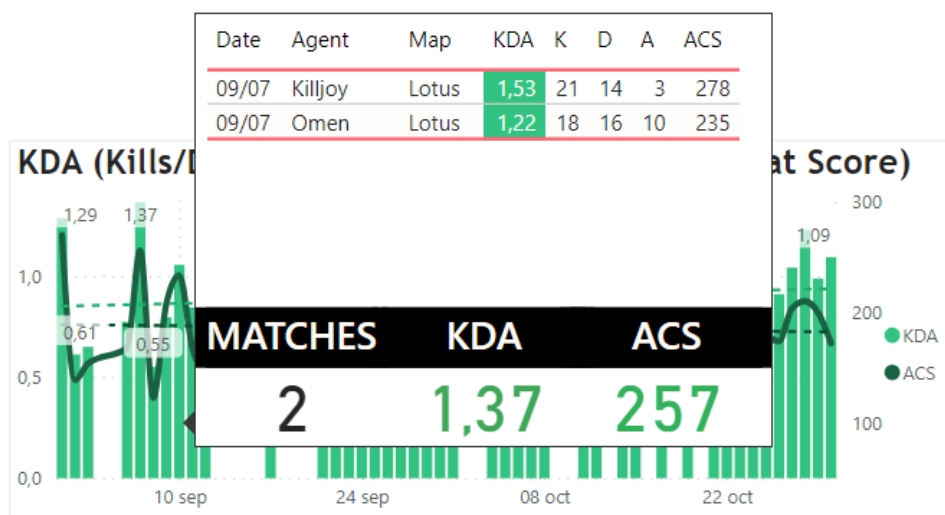
The minimum of KDA per day was 0.22 (October 14) and the maximum 1.37 (September 7), about this we can emphasize that there are several days in which the KDA approached the maximum, while the value that follows the minimum is double it, 0.44 KDA (October 6). Thus taking the minimum as an anomalous value.

The minimum ACS per day was 84, the same day as the KDA minimum (October 14), while the maximum of 270 is a different day from the KDA (September 1). This reinforces what we said, since the ACS following the minimum is 114, much higher than the minimum, plus it is a different day (October 11) than the KDA of 0.44. Thus speaking of the anomaly of this value.

Apart from what was explained above, this graph has two dotted lines, these are called “trend lines” in Power BI, which is known as a linear regression on the data. This is slightly positive for the KDA and slightly negative for the ACS. It is a small projection of what could happen in the following months, but having not played days, having an anomalous value in October and only having a database of two months, this trend can change a lot.

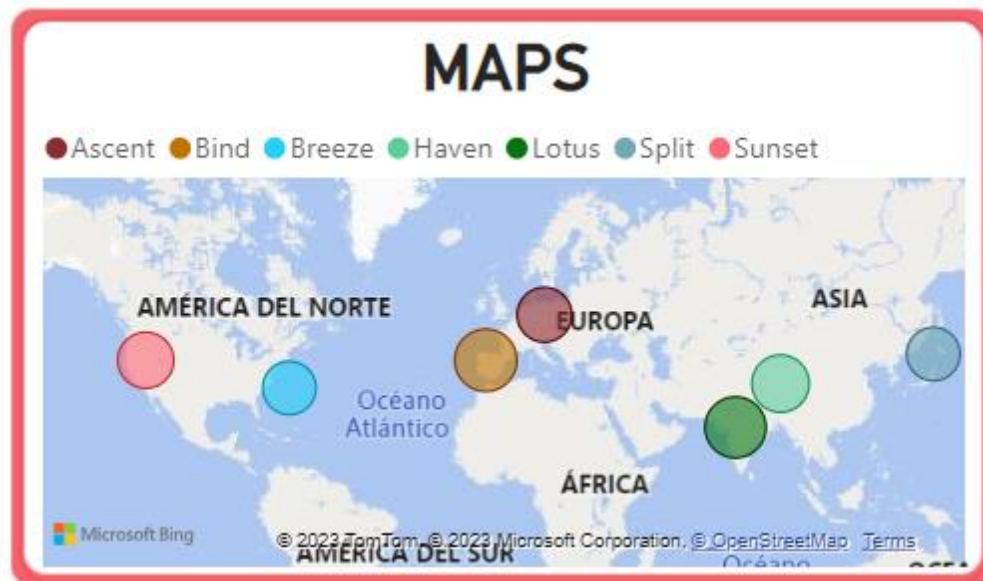
#### *Tooltip (KDA & ACS)*

Finally, I present the Tooltip of this graph, it is similar to the previous one, only it does not have the day or month on cards, but rather the number of games played that day.



## MAPS (Map)

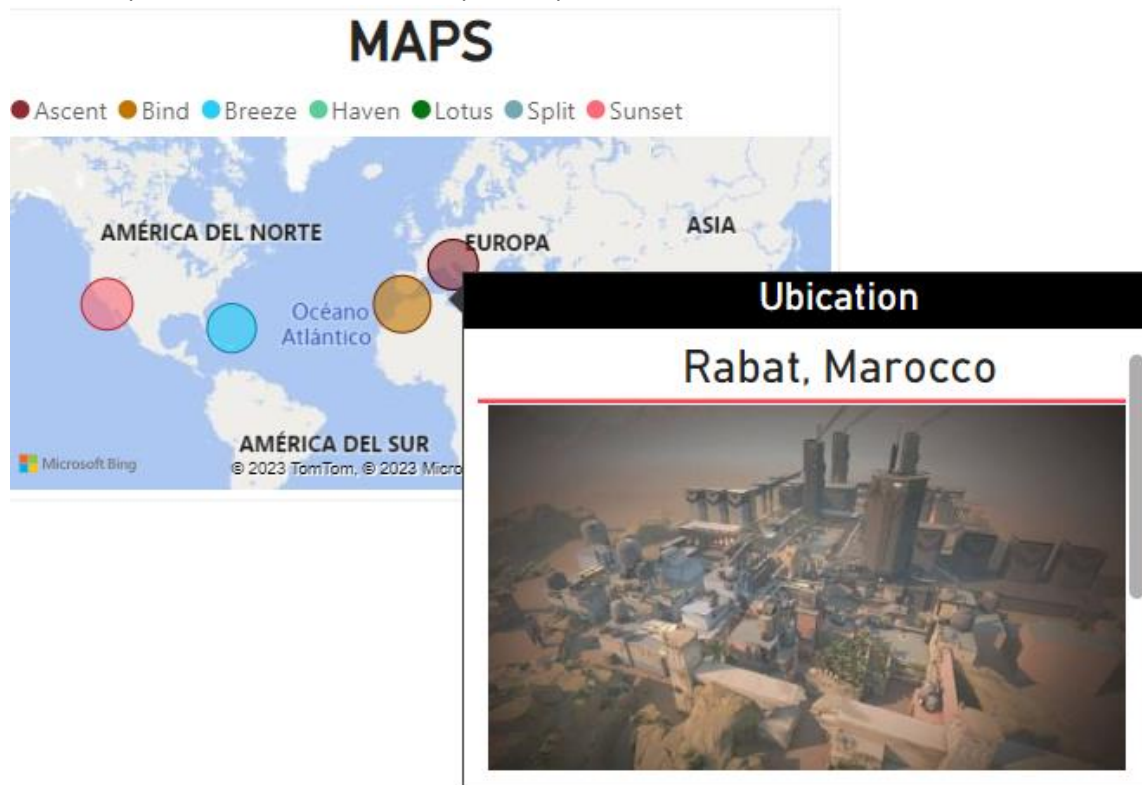
This is a map where, thanks to the location coordinates, we were able to obtain a world map where each of them is reflected, each point color is representative of the map and the bubble represents the magnitude of times we played on it.



The least played maps were Breeze and Split. The most played Bind and Lotus, Lotus one time less than Bind.

## Tooltip (Special MAPS)


The Tooltip has the location of the map and a photo of what it would look like.



There's not much to go into here, it's mostly informative for the locations. Putting Power BI tools into use, such as the map graph and the image URL address data category.

### Tooltip (Special Agents)

For this last Tooltip it was necessary to even change the page size of the Tooltips, this presents a lot of additional information about the agents in a table within its page.

Photo	Id	Name
	5	Amir El Amari
Codename		Class
Gumshoe		Human

It is as if it were a card, it has the agent's photo, the agent ID (from the game), the agent's real name, the code name and what class it is. For each agent it varies, there is no more information. Just like Special Maps, it is informative.

### Share

You can see this entire report through the following [Link](#)! If you cannot access it, there is still the report file inside the folder.

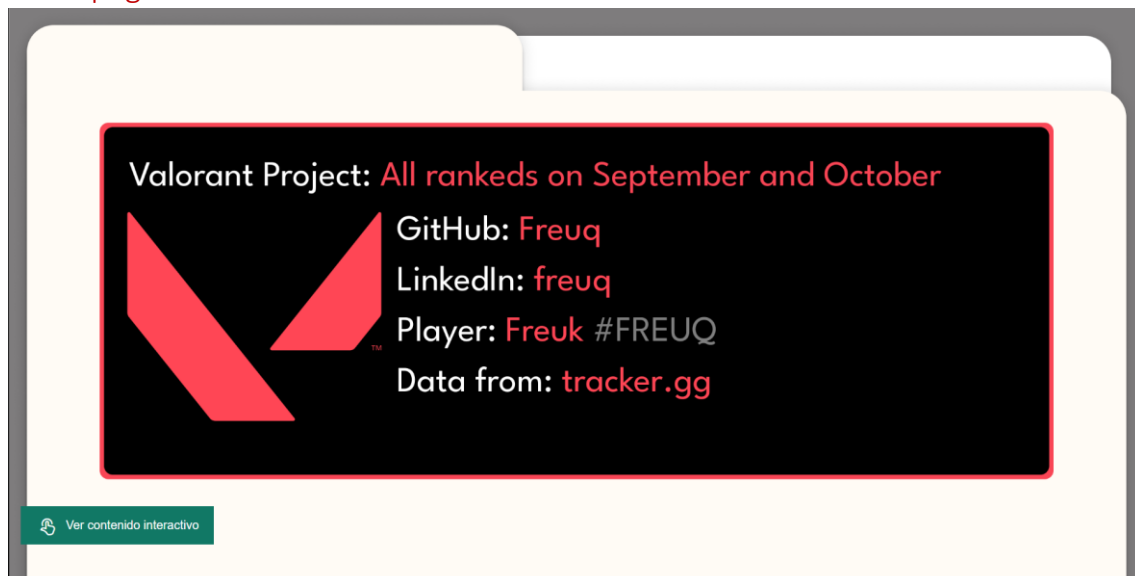
In this last section I will present the dashboards that make up this report, it goes a little above because it has enough details. This was the most tedious part because I wanted a good aesthetic for everyone and I am not a designer, but I am very demanding.

**NOTE:** Something to emphasize is that the report has some filters applied, since some maps and agents are output. This is because I don't usually play some agents and they were just empty data, while the maps rotate in ranked, currently there are 7 that are displayed, but there are 3 that are not played, so they were also empty data (Fracture, Icebox, Pearl).

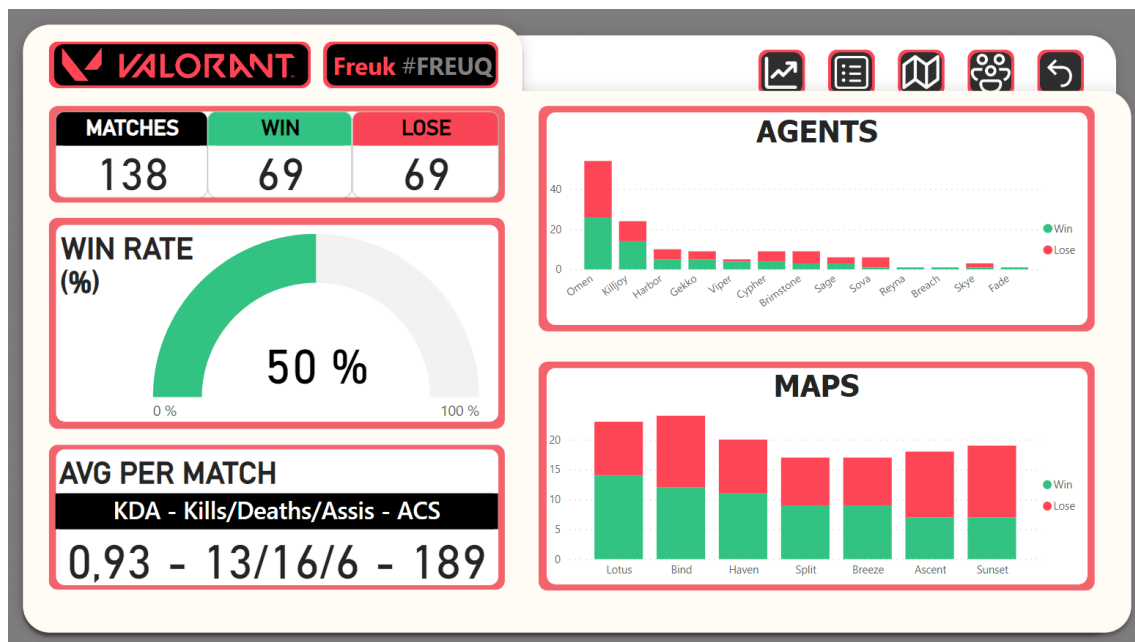
All the **backgrounds** were made in [Figma](#), the idea was to create a **folder concept**, where the cover and first dashboard are the manila part and the rest are the sheets inside the folder.



Front page

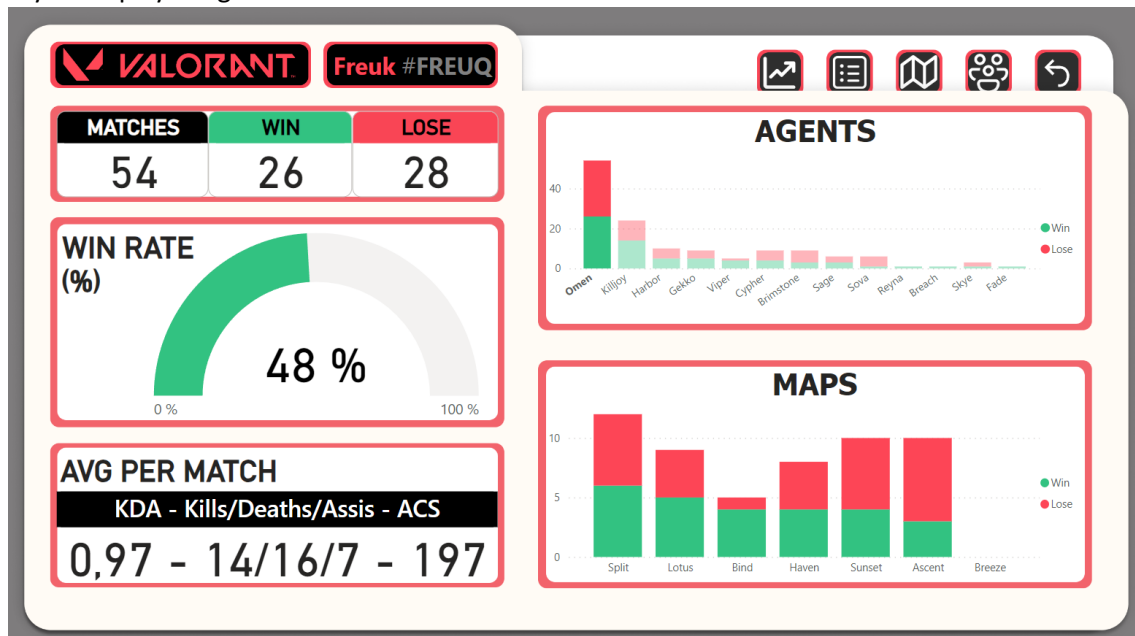


This cover can only be seen if you enter from the [link](#). Here I present the name of the project, my networks and where the data comes from.



This is the first dashboard, it has an overview of the matches/win/lose, followed by the win rate and finally the average per game (avg per match).

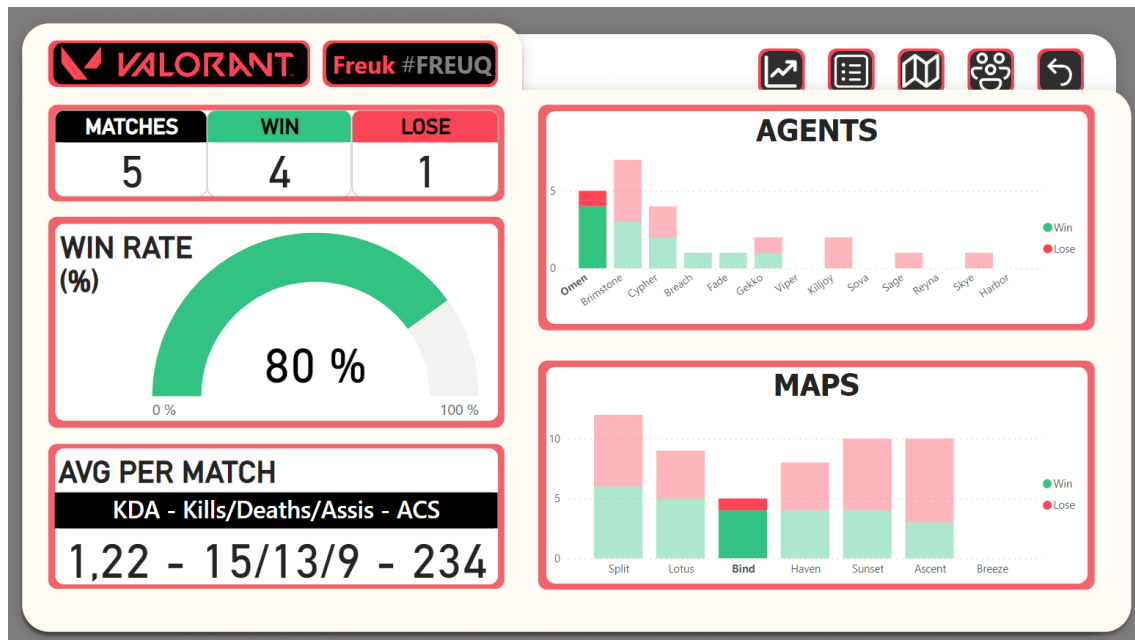
There are also two graphics that have already been explained, in this one you can select any character or map and the rest of the representations will be affected. For example, for Omen, my most played agent:



Where I have played 54 matches, with 26 wins and 28 losses, so I have a win rate of 48%, a bit bad. A KDA of 0.97, an average K/D/A of 14/16/18 and an average ACS of 197. Having played Omen so many times, we could say that practically all my data is governed by it, since it is almost 50% of my games. Finally, you can see which maps I have played, where you can see the wins and losses in each case, the most played is Split (12 times), but surely the one with the best win rate is Bind.



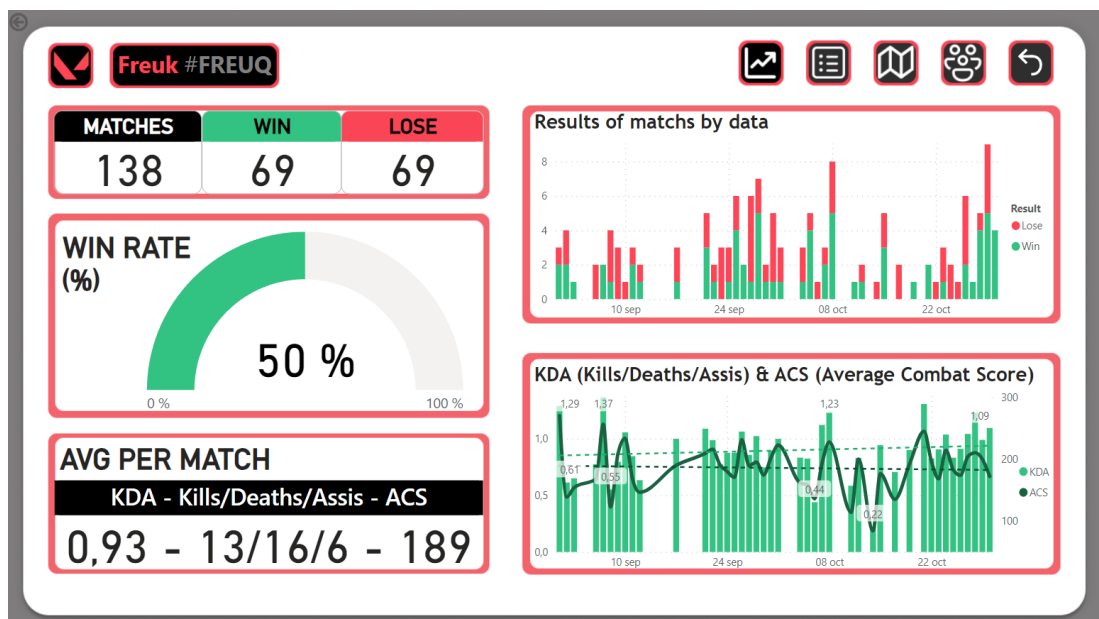
One property of these graphs is that you can select two at a time. For example, we will take Omen on Bind:



And indeed, it improves a lot in all aspects, so we can filter the general aspects of the report, it serves to give a fairly good analysis of the data.

Lastly, we have the top bar. The folder part has the name of the game which takes you directly to the page if you want to download it, and my name within the game which takes you to my profile on tracker.gg where you can see all the data. Then we have some icons on the sheets, which allow us to travel throughout the dashboards, each one has a description of what it is. The last one, which would be the arrow, is the only one that does not lead to any dashboard, but simply eliminates all the applied segmenters, in this case they would be the agent and the map that we select. Also above or in the title of the graphs there are buttons that lead to different pages.

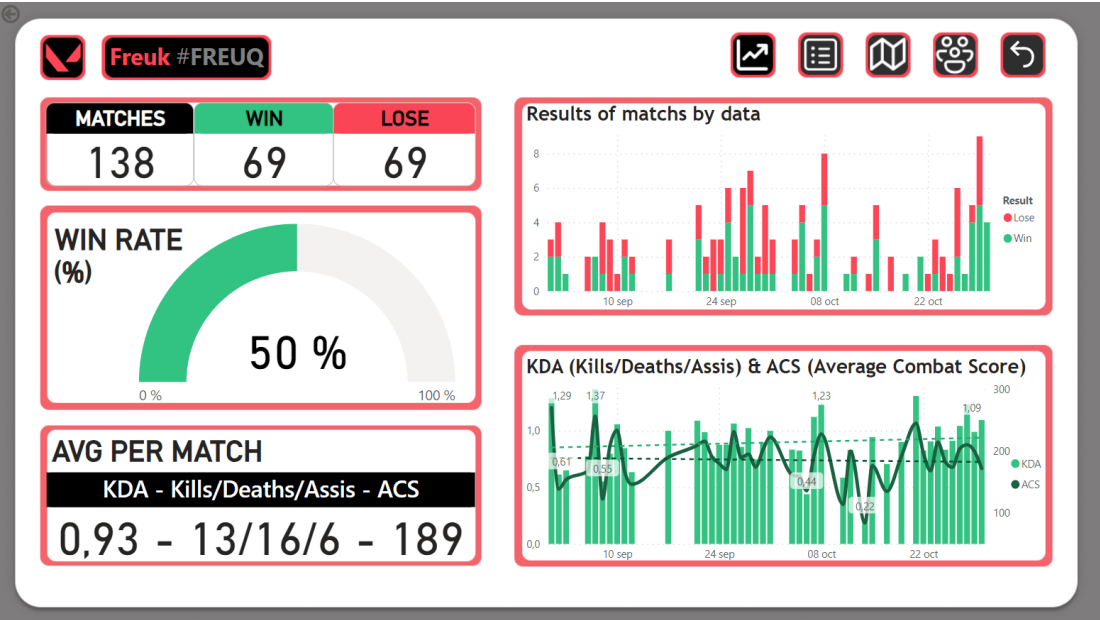
## Matches



This would be the second dashboard, where the entire left part is maintained and the right part has two graphs that were explained in the graphs section.

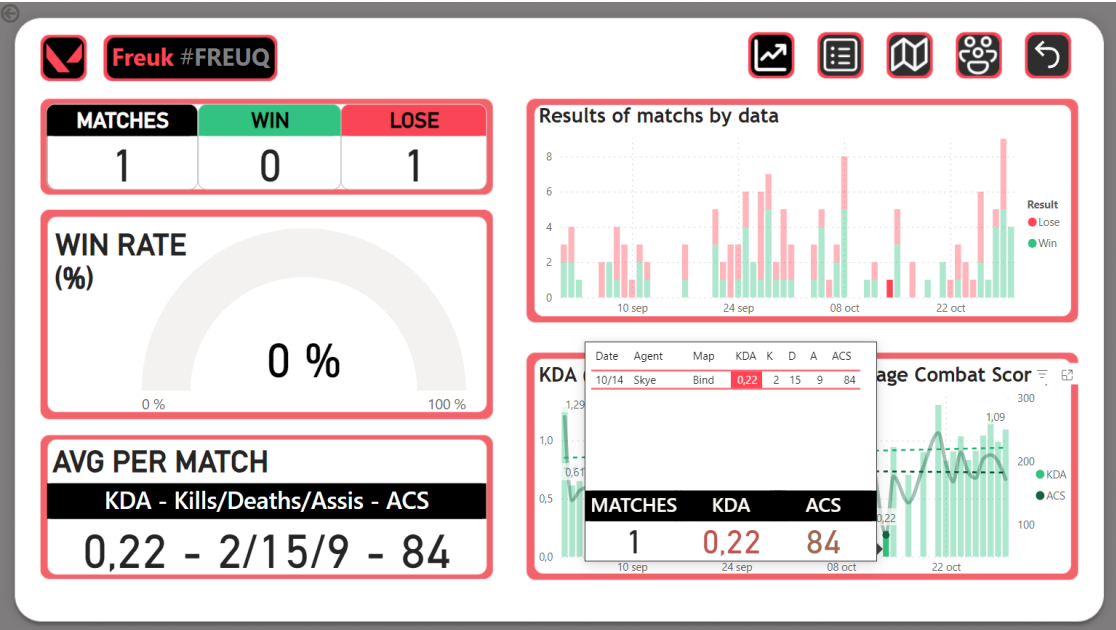
As before, the two graphs allow you to filter from a particular day or a particular victory, to exemplify I will filter by my worst and best KDA day.

Best day:



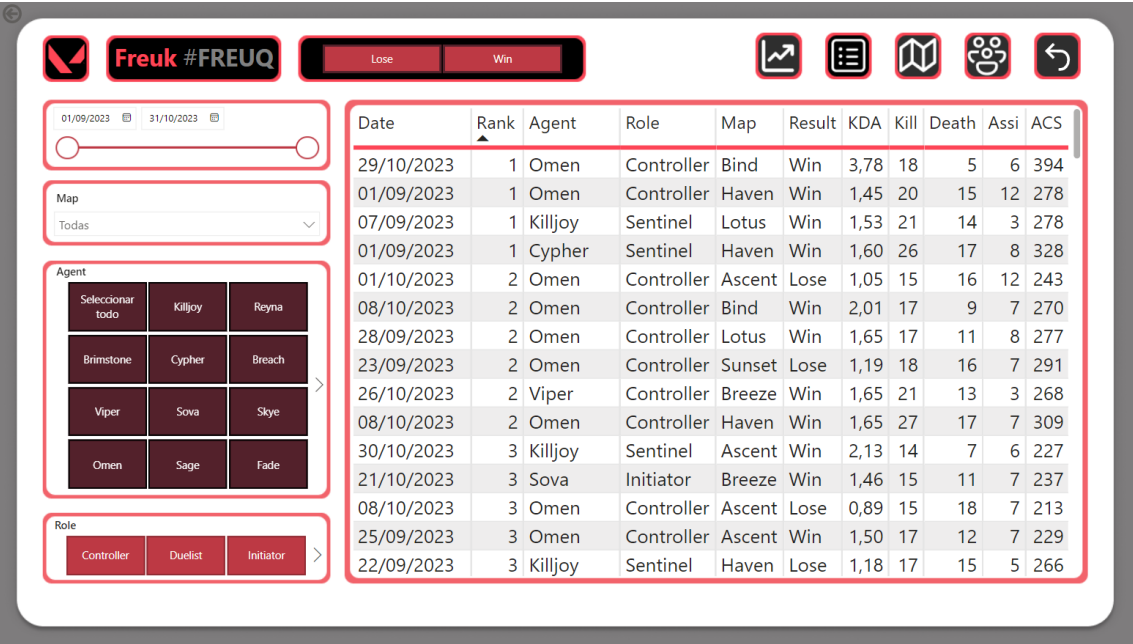
There you can see that that day I played Omen and Killjoy, within the Tooltip, there were only two games that day and little else, on 07/09 (American format, the first month). It agrees with what is stated in AVG per match and everything is fine.

Worst day:



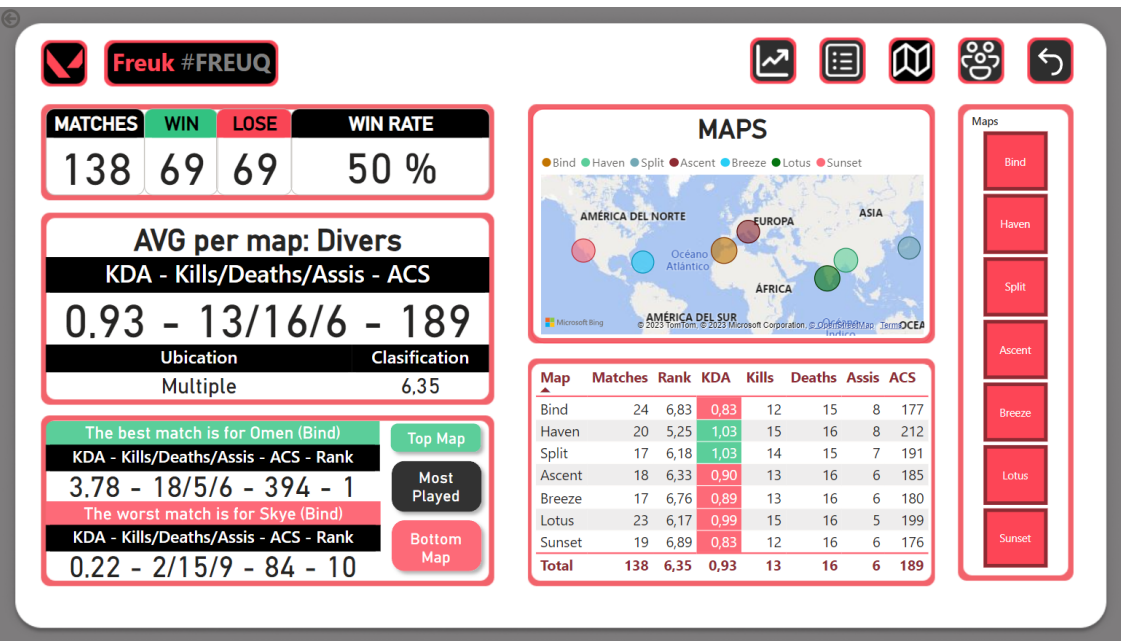
**NOTE:** All dashboards, except Home, have a small arrow at the top left, this is an arrow that gives the action back, to change pages or anything if necessary.

Matches Details



This is the details dashboard, here you can see all the games played and it is possible to filter by date, maps, agents, roles and whether it is victory or defeat. There is not much to explain, if you want to see the data in detail. This table does not have a Tooltip.

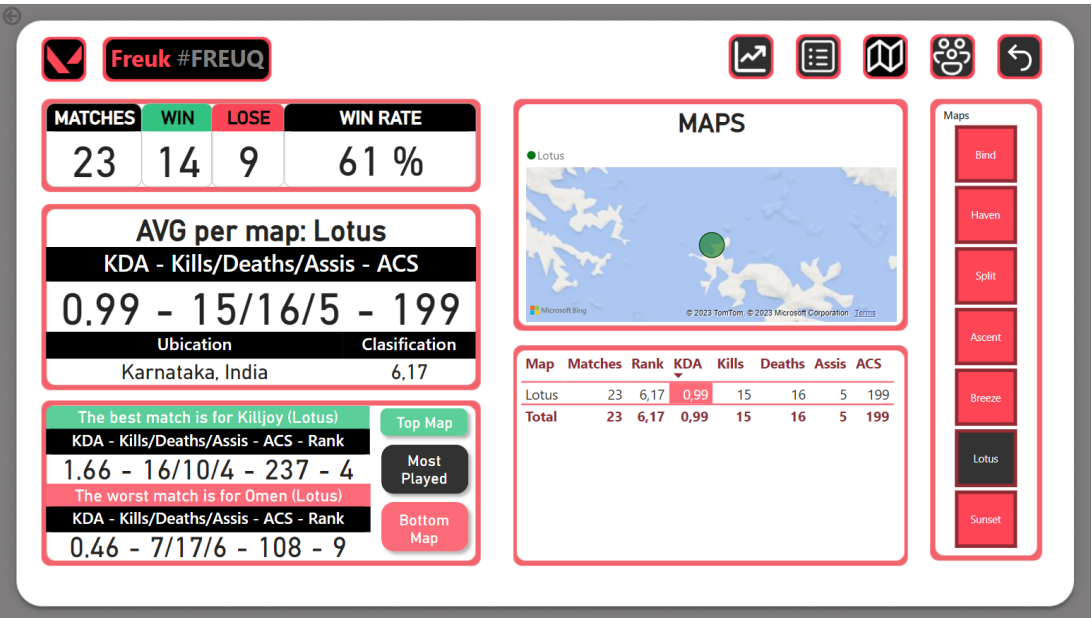
MAPS



In this dashboard the perspective changes a little. The win rate goes to the bar next to matches/win/lose.

Then comes a box like AVG per match, but this is per map, every time a map is selected it filters all this information and “divers” change by the map name, location and classification were added in this case.

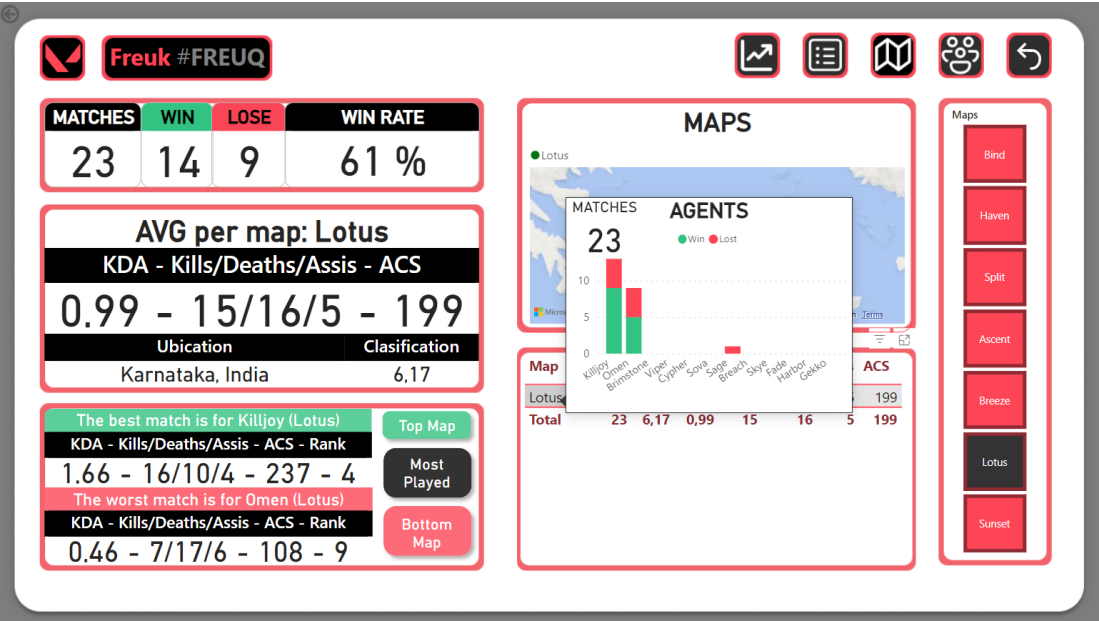
In the bottom corner is a section where there are two panels and three buttons. They have the information of the best match played on the selected map and the information of the worst match played on the selected map. When they are all selected, they give the best and worst history. And on the buttons, the Top Map button filters by the map with the highest victory rate, the Bottom Map filters by the map with the lowest victory rate, while the middle button filters by the map that has been played the most times. Example by pressing most played map: Lotus.



On the right side is the only segmenter of the dashboard, this helps to filter by each of the maps, just as before, if we press shift when selecting the maps, we can filter by more than one.

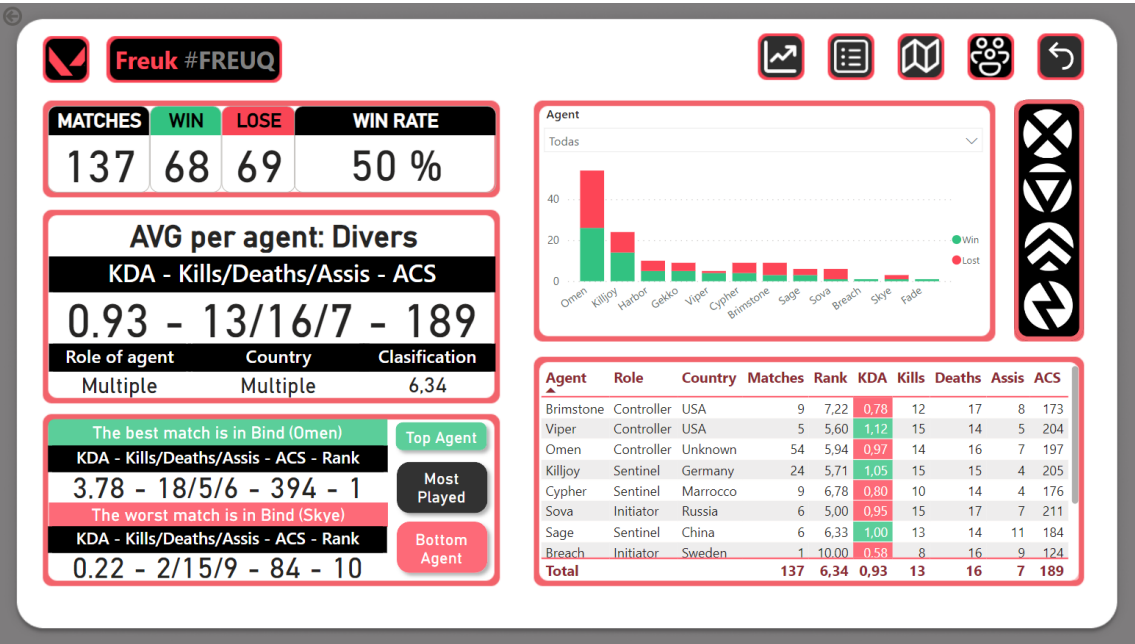
We have the map graph, this was explained before and below it a small table with the general data of the games, the data that I generally present.

Here you can see that my best game in Lotus was with Killjoy and the worst was with Omen, to know who I have played with on this map we have the Tooltip of the table, which would be the following:



In this Tooltip you can see a total of 23 games, most with Killjoy and Omen, while only one is loose with Sage. There is a similar Tooltip, but with the maps in the agents tab.

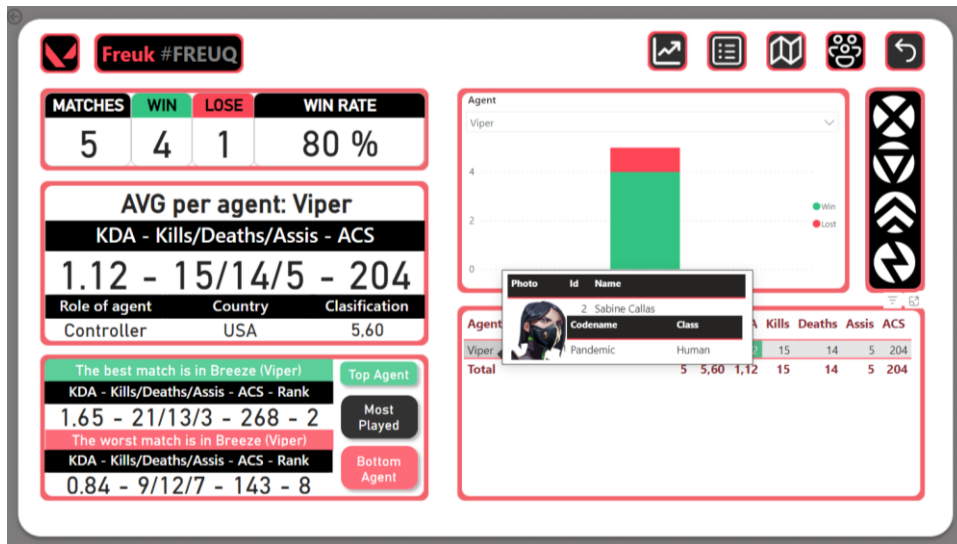
AGENTS



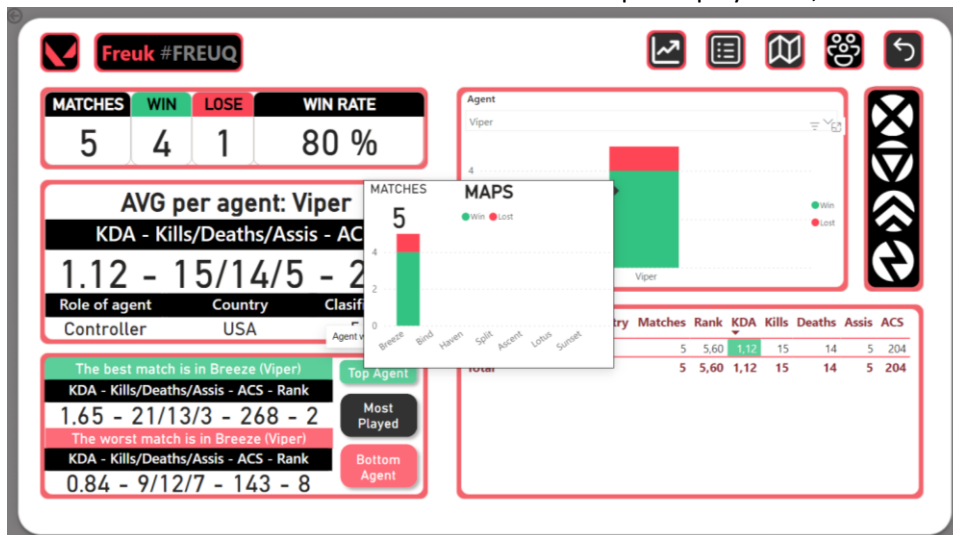
This would be the last dashboard, the right side is all the same, it only changes in the Role of the agent and the country, since here we mean that each character has a role and their country of birth. And change the bottom left from maps to agents, it must be emphasized that KDA is used to describe the best and worst agent, not the win rate. Furthermore, agents that have been used once were not used, because the worst KDA is Breach, but it was only used once, and the best KDA is Reyna, but it was only used once.

The biggest difference with the previous dashboard is the graph of the maps and segmenters, this one has a stacked bar graph of Agents, similar to the one in the initial dashboard. On the right side it has some segmenters with signs, each sign represents each role, the x the duelists, the inverted triangle the sentinels, the arrows the controllers and the lightning bolt the initiators. There is also a slicer by Agent, just above the stacked bar chart.

The table is identical to the previous one, only here we place the role and country of the agent. And in the Tooltip there is the agent special, which is like a letter. Example filtering by the best agent:



Where the best agent is Viper, she has a controller role, she is from the United States, her best game was in Breeze and her worst game was in Breeze, her name is Sabine Callas and so we have more information. If we want to see which map was played on, we see the other Tooltip:



## Act

Some things to conclude throughout the two months:

- KDA is less than 1 (0.93), ACS is less than 200 (189), win rate is 50%.
- 50% of games use Omen (54) and Killjoy (24). My best agent is Viper and my worst agent is Skye.
- I don't usually use Duelists. I only played a single duelist, Reyna once (1/138).
- The most used role is Controller, especially using Omen (54/138).
- The map with the highest KDA (Haven) is not the map with the highest win rate (Lotus with 61%). The map with the worst win rate is Haven and the most played is Bind (24 times).
- And finally, there has not been a notable improvement in my performance as a player 😞.

Now I will outline some possible ideas for future projects regarding Valorant:

- 1) You could make a comparison between the months, number of games played, KDA and monthly ACS, to see if there is a more notable change from this perspective. Did I perform better in October than in September?
- 2) Try to play other roles and other agents, to further normalize the data. About 40% of my games were with Omen and probably more than 50% with just a controller.
- 3) We could make a role dashboard, which roles do I play the most? Which ones do I perform best with? (This can be done by taking notes in the current report).
- 4) Add more months to make better projections.
- 5) Add if I am playing with a party (partners outside the game) or without, to be able to analyze if I have a better or worse performance.
- 6) Adding an analysis per day of the week, does my performance improve depending on the day I am on? because?
- 7) Perform web scraping to automate data collection and only have to upload it, either to Excel or directly to Power BI. This would be the most important step described.

## EXTRA

It should be noted, since I didn't know where to add it, that the most complicated thing to do were the interactive titles, you can review them within the measurements, here I leave some small images:

```
1 WorstMap =  
2 VAR MinKDA =  
3     MINX(  
4         FILTER('FAC-Matches', min('FAC-Matches'[KDA])),  
5         'FAC-Matches'[KDA]  
6     )  
7 VAR MapID =  
8     MINX(  
9         FILTER('FAC-Matches', 'FAC-Matches'[KDA] = MinKDA),  
10        'FAC-Matches'[MapID]  
11    )  
12 VAR NameMap =  
13     CALCULATE(  
14         MIN('Dim-Maps'[Map]),  
15         'Dim-Maps'[Id] = MapID  
16     )  
17 RETURN  
18 IF(ISBLANK(NameMap), "Unknown", NameMap)
```

```
1 Txt - WorstMatchAgent =  
2 var Map = [WorstMap]  
3 var Agent = [WorstAgent]  
4  
5 return  
6 "The worst match " & "is in " & Map & " (" & Agent & ")"
```