

Game Stonks

Group 7

Motivation

To analyze the information from steam players, twitch viewer, google trends Interest and twitter tweets to see the trends between games in each platform.

4 Secondary Data Sources

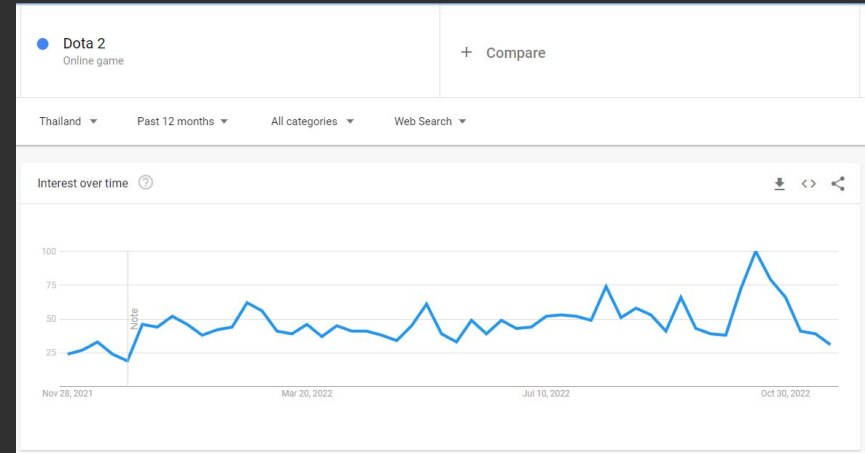
3 Api and 1 Web Scraper

Web Scraper

Google Trends

Get the number of Interest over time

<https://trends.google.co.th/trends/explore>



API

Steamworks Web Api

GetNumberOfCurrentPlayers

[https://partner.steamgames.com/doc/
webapi/ISteamUserStats](https://partner.steamgames.com/doc/webapi/ISteamUserStats)

Request: GET	<code>https://api.steampowered.com/ISteamUserStats/GetNumberOfCurrentPlayers/v1/?format=json&appid={{gameid}}</code>
Response:	<pre>{ player_count: int, result: int }</pre>

Twitch GQL

Get the number of viewer by Game

<https://gql.twitch.tv/gql>

<https://github.com/daylamtayari/Twitch-GQL/blob/master/Operation-Hashes.md>

Request: GET	<pre>https://gql.twitch.tv/gql payload: { operationName: Directory_DirectoryBanner, variables: {game: string}, extensions: { persistedQuery: {version: int, sha256Hash: string} } }</pre>
Response:	<pre>{ data: { id: string, name: string, viewerscount: int, ... }, extensions: object }</pre>

Twitter Api

Tweet counts (recent)

<https://developer.twitter.com/en/docs/twitter-api/tweets/counts/api-reference/get-tweets-counts-recent>

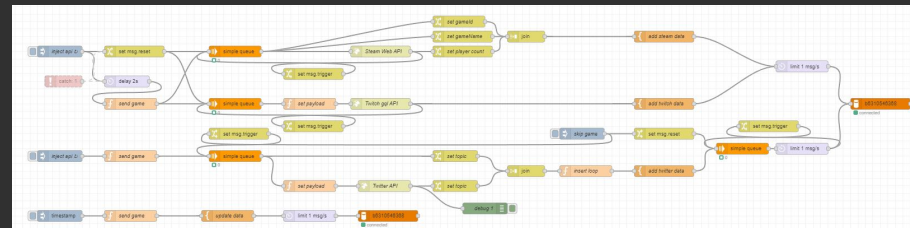
Request: GET	<code>https://api.twitter.com/2/tweets/counts/recent?query={{searchQuery}}&granularity=hour</code> <code>{Authentication: bearer token}</code>
Response:	<pre>{ data: [{ end: string, start: string, tweet_count: int }, ...], meta: object }</pre>

Tools

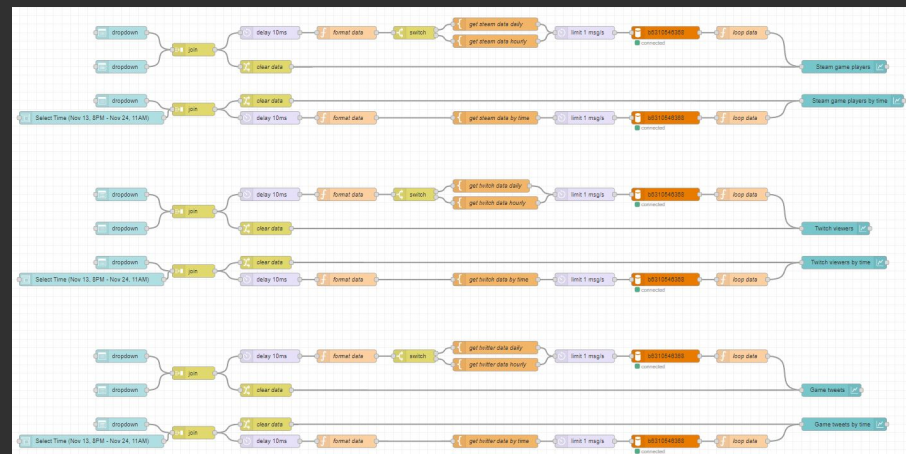
Node-RED and phpMyAdmin

node-RED

Handle Data acquisition and
visualization



Data acquisition



Dashboard

phpMyAdmin

Database

Steam

←T→	id	game_id	game	players	timestamp
<input type="checkbox"/> Edit Copy Delete	1	1172470	Apex Legends	268303	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	2	1938090	Call of Duty: Modern Warfare II	140315	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	3	730	Counter-Strike: Global Offensive	674947	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	4	381210	Dead by Daylight	32242	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	5	570	Dota 2	536170	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	6	1245620	Elden Ring	24504	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	7	271590	Grand Theft Auto V	107015	2022-11-12 07:00:00

Twitch

←T→	id	game_id	game	viewers	timestamp
<input type="checkbox"/> Edit Copy Delete	1	511224	Apex Legends	70658	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	2	1678052513	Call of Duty: Modern Warfare II	41679	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	3	32399	Counter-Strike: Global Offensive	25960	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	4	491487	Dead by Daylight	18798	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	5	29595	Dota 2	26579	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	6	512953	Elden Ring	1660	2022-11-12 07:00:00
<input type="checkbox"/> Edit Copy Delete	7	32982	Grand Theft Auto V	89223	2022-11-12 07:00:00

Twitter

←T→	id	game	hashtag	tweets	timestamp
<input type="checkbox"/> Edit Copy Delete	1	Apex Legends	ApexLegends	344	2022-11-11 19:00:00
<input type="checkbox"/> Edit Copy Delete	2	Call of Duty: Modern Warfare II	CallofDutyModernWarfare2	70	2022-11-11 19:00:00
<input type="checkbox"/> Edit Copy Delete	3	Counter-Strike: Global Offensive	CSGO	1063	2022-11-11 19:00:00
<input type="checkbox"/> Edit Copy Delete	4	Dead by Daylight	DeadbyDaylight	24	2022-11-11 19:00:00
<input type="checkbox"/> Edit Copy Delete	5	Dota 2	dota2	106	2022-11-11 19:00:00
<input type="checkbox"/> Edit Copy Delete	6	Elden Ring	ELDENRING	130	2022-11-11 19:00:00
<input type="checkbox"/> Edit Copy Delete	7	Grand Theft Auto V	GTA5	179	2022-11-11 19:00:00

Google
Trends

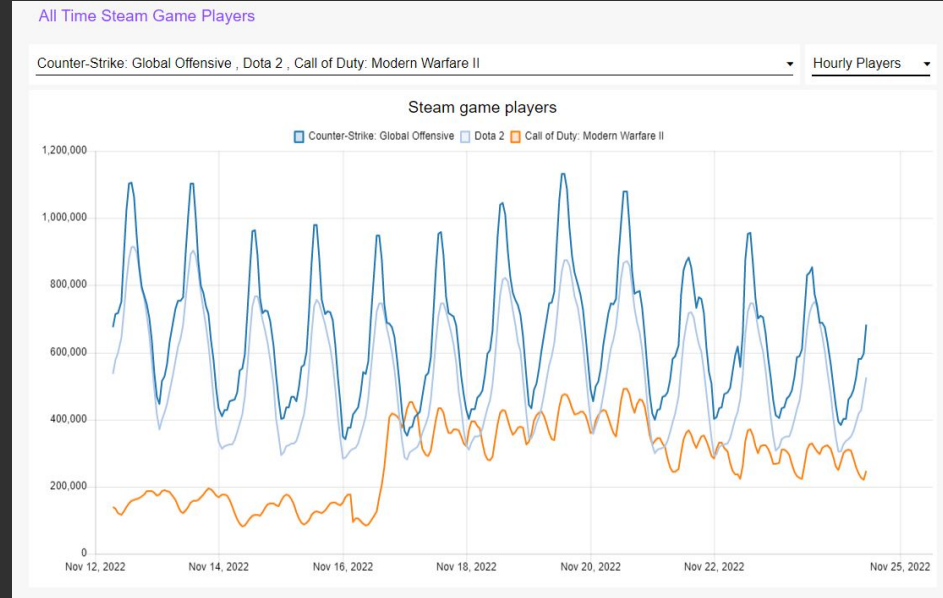
←T→	id	game	interest	timestamp
<input type="checkbox"/> Edit Copy Delete	1	Apex Legends	75	2022-11-13 20:00:00
<input type="checkbox"/> Edit Copy Delete	2	Call of Duty: Modern Warfare II	29	2022-11-13 20:00:00
<input type="checkbox"/> Edit Copy Delete	3	Counter-Strike: Global Offensive	40	2022-11-13 20:00:00
<input type="checkbox"/> Edit Copy Delete	4	Dead by Daylight	60	2022-11-13 20:00:00
<input type="checkbox"/> Edit Copy Delete	5	Dota 2	89	2022-11-13 20:00:00
<input type="checkbox"/> Edit Copy Delete	6	Elden Ring	67	2022-11-13 20:00:00
<input type="checkbox"/> Edit Copy Delete	7	Grand Theft Auto V	86	2022-11-13 20:00:00

Dashboard

5 Tab

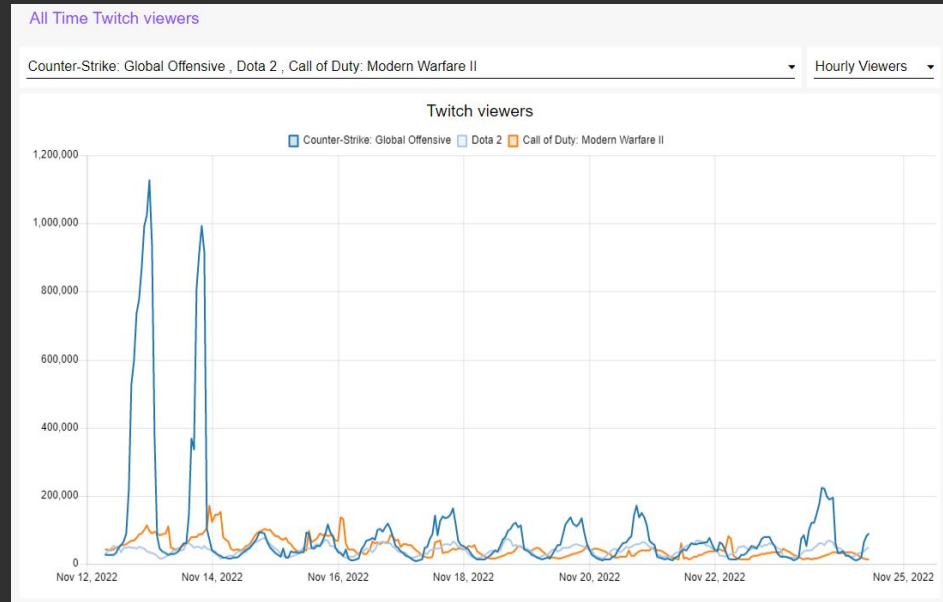
Steam

Visualize Steam game players data



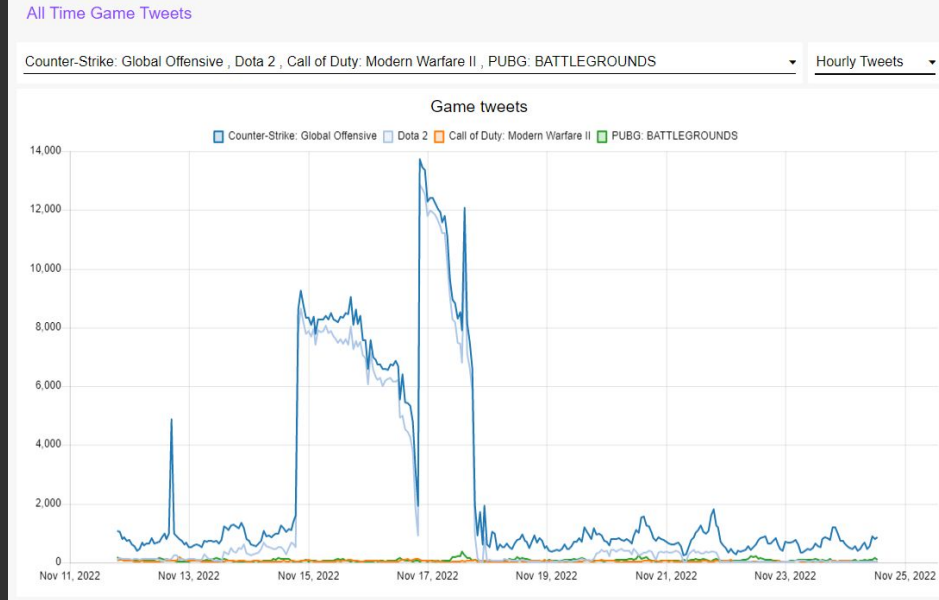
Twitch

Visualize Twitch viewer data



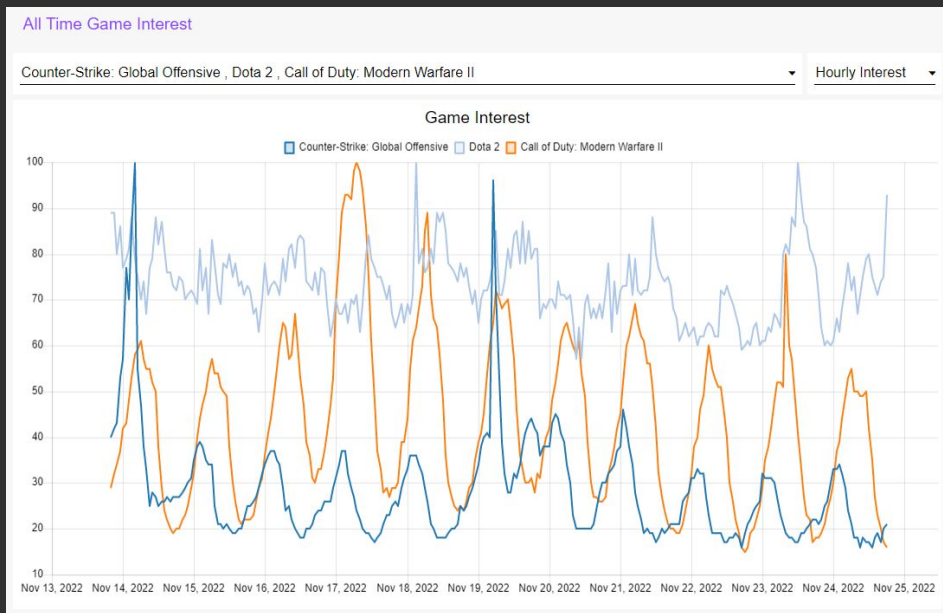
Twitter

Visualize game tweets data



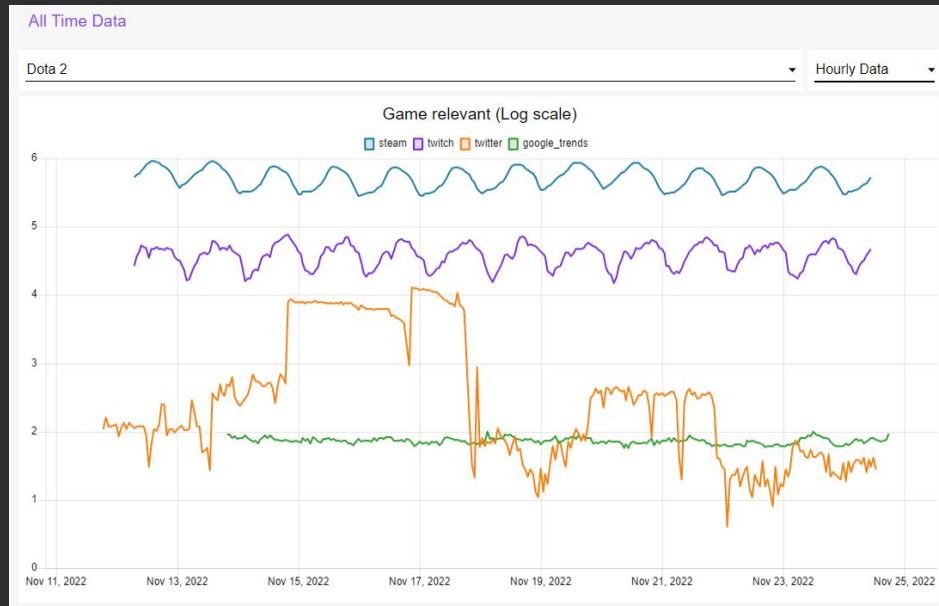
Google Trends

Visualize game interest data



Game Relevant

Visualize data between 4 sources



API provided

11 Api

Get all games

Request: GET	/game
Response:	<pre>{ "game_id": [{ "1": "Counter-Strike: Global Offensive", "2": "Dota 2", "3": "Call of Duty: Modern Warfare II", "4": "PUBG: BATTLEGROUNDS", "5": "Apex Legends", "6": "Naraka: Bladepoint", "7": "Grand Theft Auto V", "8": "New World", "9": "Dead by Daylight", "10": "Elden Ring", "11": "Monster Hunter Rise", "12": "Project Zomboid" }] }</pre>

Get Google interest by game

Daily

Request: GET	/google/dairy/<id>
Response:	<pre>{ "date_type": "Peak Daily Interest", "game": [...], "result": { "Call of Duty: Modern Warfare II": [{ "date": "Fri, 11 Nov 2022 00:00:00 GMT" "interest": 37 },...],... } }</pre>

Get Google interest by game

Hourly

Request: GET	/google/hourly/<id>
Response:	<pre>{ "date_type": "Hourly Interest", "game": [...], "result": { "Call of Duty: Modern Warfare II": [{ "date": "Fri, 11 Nov 2022 00:00:00 GMT", "interest": 29 },...],... } }</pre>

Get Steam game player by game

Daily

Request: GET	/steam/daily/<id>
Response:	<pre>{ "date_type": "Peak Daily Players", "game": [...], "result": { "Call of Duty: Modern Warfare II": [{ "date": "Fri, 11 Nov 2022 00:00:00 GMT", "players": 187106 },...],... } }</pre>

Get Steam game player by game

Hourly

Request: GET	/steam/hourly/<id>
Response:	<pre>{ "date_type": "Hourly Players", "game": [...], "result": { "Call of Duty: Modern Warfare II": [{ "date": "Fri, 11 Nov 2022 00:00:00 GMT", "players": 140315 },...],... } }</pre>

Get Twitch viewers by game

Daily

Request: GET	/twitch/daily/<id>
Response:	<pre>{ "date_type": "Peak Daily viewers", "game": [...], "result": { "Call of Duty: Modern Warfare II": [{ "date": "Fri, 11 Nov 2022 00:00:00 GMT", "viewers": 111705 },...],... } }</pre>

Get Twitch viewers by game

Hourly

Request: GET	/twitch/hourly/<id>
Response:	<pre>{ "date_type": "Hourly viewers", "game": [...], "result": { "Call of Duty: Modern Warfare II": [{ "date": "Fri, 11 Nov 2022 00:00:00 GMT", "viewers": 42065 },...],... } }</pre>

Get game Tweets

Daily

Request: GET	/twitter/daily/<id>
Response:	<pre>{ "date_type": "Peak Daily tweets", "game": [...], "result": { "Call of Duty: Modern Warfare II": [{ "date": "Fri, 11 Nov 2022 00:00:00 GMT", "tweets": 86 },...],... } }</pre>

Get game Tweets

Hourly

Request: GET	/twitter/hourly/<id>
Response:	<pre>{ "date_type": "Hourly tweets", "game": [...], "result": { "Call of Duty: Modern Warfare II": [{ "date": "Fri, 11 Nov 2022 00:00:00 GMT", "tweets": 70 },...],... } }</pre>

Get game Interest

Daily

Request: GET	/relevent/daily/<platform>/<start_date>/<end_date>/<id>
Response:	<pre>{ "date_type": "Hourly", "game": [...], "platform": [...], "result": { "steam": { "Call of Duty: Modern Warfare II": [{ "date": "Sat, 12 Nov 2022 00:00:00 GMT", "viewers": 1023747 },...],... },... } }</pre>

Get game Interest

Hourly

Request: GET	/relevent/hourly/<platform>/<start_date>/<end_date>/<id>
Response:	<pre>{ "date_type": "Hourly", "game": [...], "platform": [...], "result": { "steam": { "Call of Duty: Modern Warfare II": [{ "date": "Sat, 12 Nov 2022 00:00:00 GMT", "viewers": 70658 },...],... },... } }</pre>