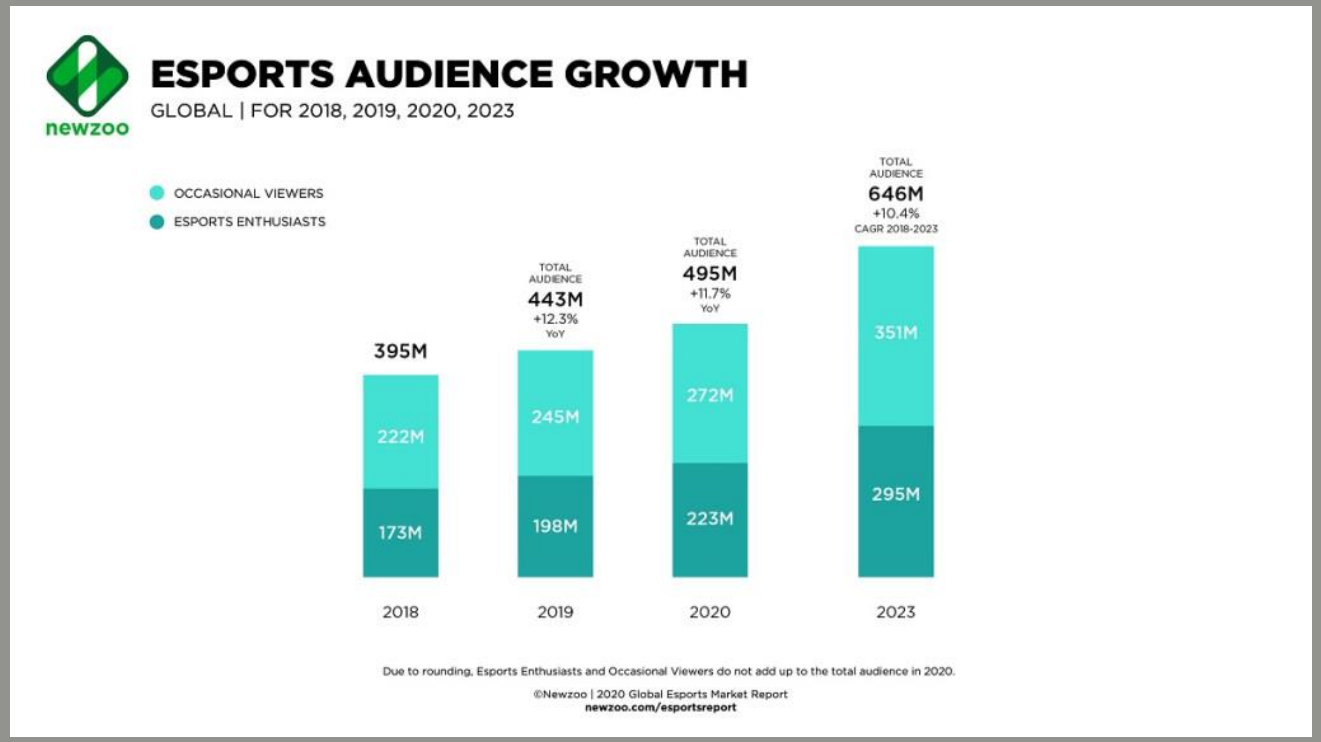
ESPORTS TOURNAMENT SCRAPER

Blair Martin

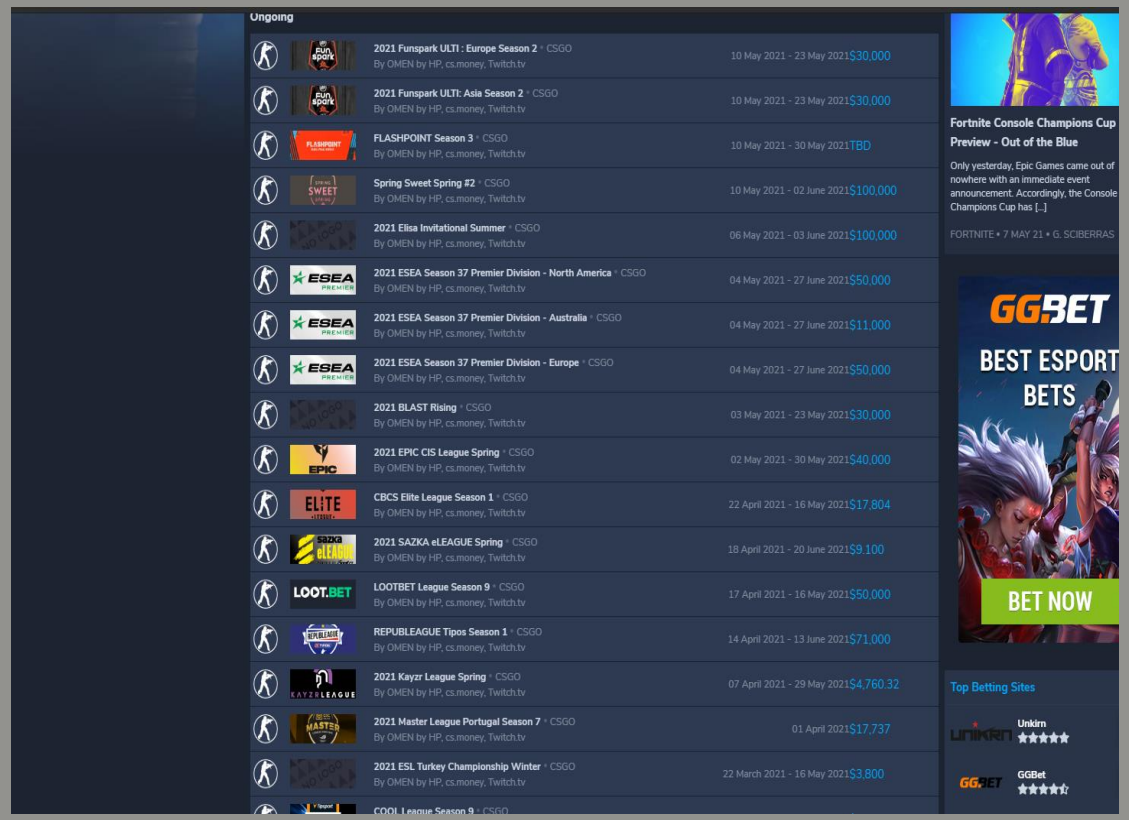
Esports is growing

- Goal initially to improve returns for twitch by investing in tournaments.
- Twitch API only updates in real-time not useable.
- Check if player involvement improved after tournaments.

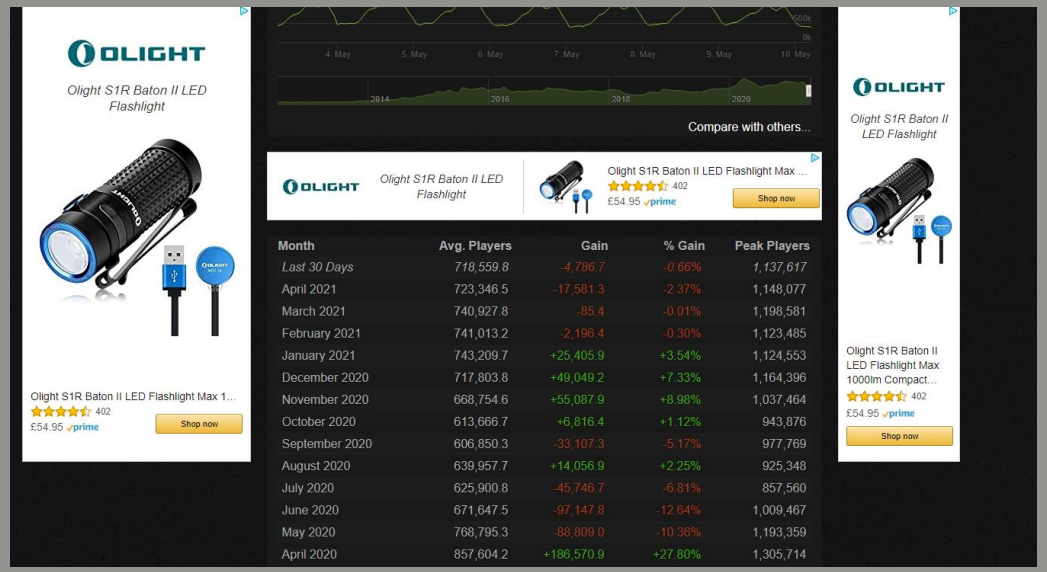


Getting the data

- https://www.esportsguide.com/events/csgo



www.steamcharts.com



Month	Avg. Players	Gain	% Gain	Peak Players
Last 30 Days	*718,559.8*	*-4,786.7*	*-0.66%*	*1,137,617*
April 2021	723,346.5	-17,581.3	-2.37%	1,148,077
March 2021	740,927.8	-85.4	-0.01%	1,198,581
February 2021	741,013.2	-2,196.4	-0.30%	1,123,485
January 2021	743,209.7	+25,405.9	+3.54%	1,124,553
December 2020	717,803.8	+49,049.2	+7.33%	1,164,396
November 2020	668,754.6	+55,087.9	+8.98%	1,037,464
October 2020	613,666.7	+6,816.4	+1.12%	943,876
September 2020	606,850.3	-33,107.3	-5.17%	977,769
August 2020	639,957.7	+14,056.9	+2.25%	925,348
July 2020	625,900.8	-45,746.7	-6.81%	857,560
June 2020	671,647.5	-97,147.8	-12.64%	1,009,467
May 2020	768,795.3	-88,809.0	-10.36%	1,193,359
April 2020	857,604.2	+186,570.9	+27.80%	1,305,714

https://activeplayer.io

Month	Average Monthly Players	Monthly Gain / Loss	Monthly Gain / Loss %	Peak Players In a Day
Last 30 Days	115,554,722	-2,946,744	-2%	11,600,147
April 30, 2021	118,501,466	-1,800,813	-1%	11,588,601
March 30, 2021	120,302,279	2,779,912	2%	12,032,279
February 28, 2021	117,522,367	1,874,552	2%	11,955,470
January 30, 2021	115,647,815	-5,558,822	-5%	10,254,476
December 30, 2020	121,206,637	4,290,500	4%	8,080,442
November 30, 2020	116,916,136	23,430,462	25%	7,794,409
October 30, 2020	93,485,674	-4,920,299	-5%	5,920,759
September 30, 2020	98,405,973	-7,360,004	-7%	6,232,378
August 30, 2020	105,765,976	-3,271,113	-3%	6,698,512
July 30, 2020	109,037,089	-3,372,281	-3%	7,269,139
June 30, 2020	112,409,370	-3,476,578	-3%	4,871,073
May 30, 2020	115,885,949	-13,437,302	-10%	4,635,438
April 30, 2020	129,323,250	9,677,250	8%	5,604,008
March 30, 2020	119,646,000	10,396,000	10%	5,184,660
February 28, 2020	109,250,000	3,266,000	3%	5,462,500
January 30, 2020	105,984,000	6,348,000	6%	4,592,640
December 30, 2020	99,636,000	8,925,288	10%	3,985,440
November 30, 2019	90,710,712	8,154,210	10%	3,930,798
October 30, 2019	82,556,502	1,570,368	2%	3,577,448
September 30, 2019	80,986,134	4,049,307	5%	4,049,307
August 30, 2019	76,936,827	-7,321,146	-9%	3,077,473
July 30, 2019	84,257,973	9,706,188	13%	3,651,179
June 30, 2019	74,551,785	-10,327,384	-12%	3,230,577
May 30, 2019	84,879,169	-5,100,912	-6%	4,243,958
April 30, 2019	89,980,081	-23,351,973	-21%	4,499,004
March 30, 2019	113,332,054	4,681,107	4%	5,666,603
February 28, 2019	108,650,948	-1,127,900	-1%	5,432,547
January 30, 2019	109,778,848	-7,727,152	-7%	3,659,295
November 30, 2018				

```python
tournament_data_scraper = Scraper('https://www.esportsguide.com/events/csgo')

next_page_links = ("xpath", '//*[@id="filter_games"]/li/a', "get_attribute", "('href')")

tournament_links = ("class_name", 'single-event-card__tourn-link', "get_attribute", "('href')")

tournament_names = ('xpath' , '//h1[@class="tournament-block__title"]', "text", None)

tournament_field_titles = ("xpath", '//p[@class="tournament-block__details-title"]', "text", None)

tournament_field_values = ("xpath", '//span[@class="tournament-block__details-info"]', "text", None)

game_name = ("xpath", '//li[1]/span[@class="title"]' , "text", None)

tournament_data_scraper.scrape(next_page_links, 'tournaments', tournament_links, True, 1, game_name, tournament_names, tournament_field_titles, False, tournament_field_val
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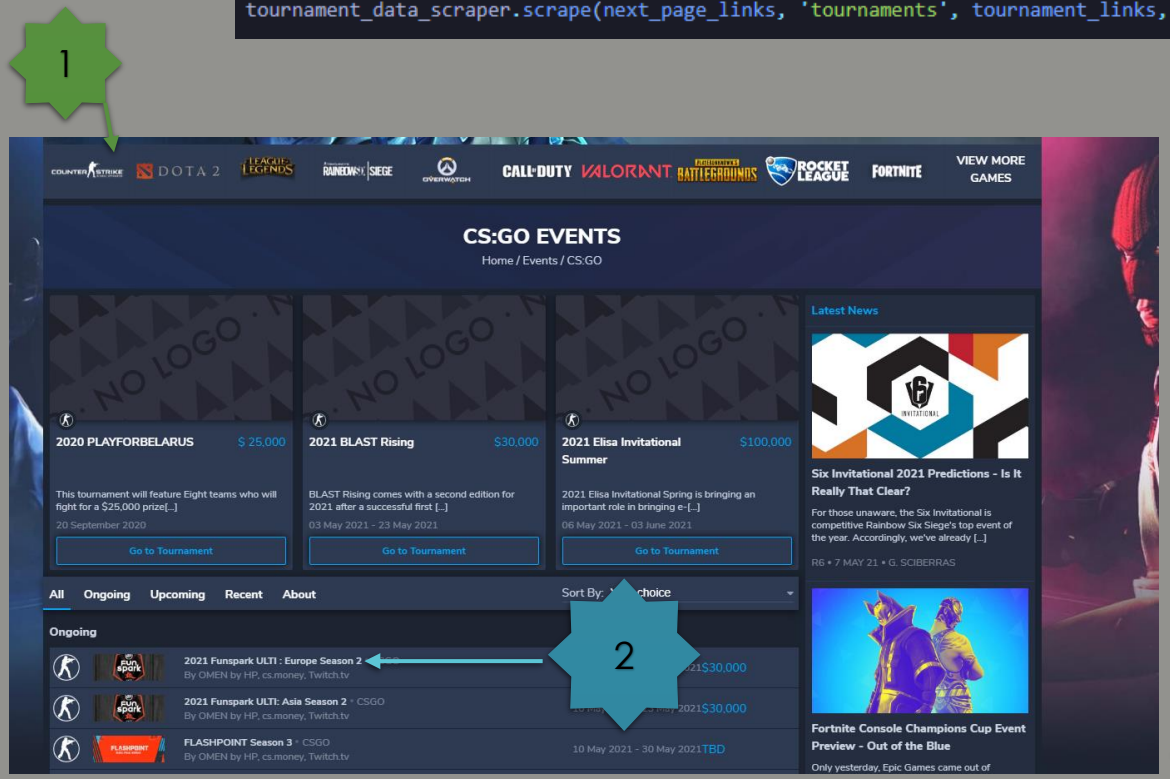

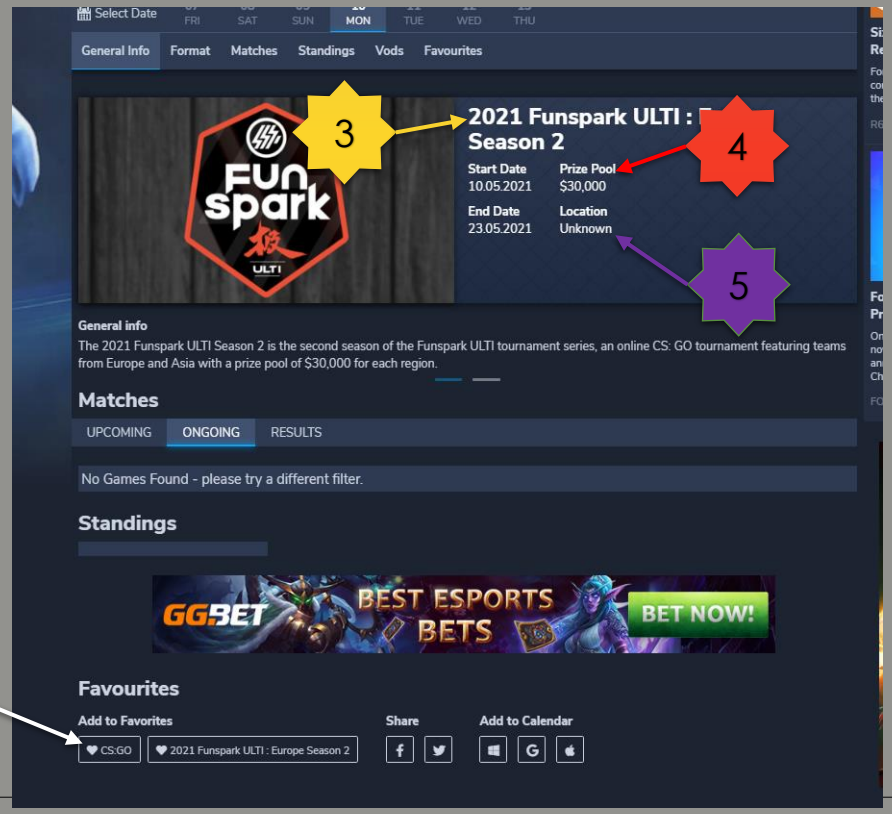

Cleaning the data

- Data was initially outputted to .json.
- Data then cleaned with pandas. Tables merge and pivoted.
- Pandas frames outputted to Amazon RDS MySQL.

Further Steps:

- Create a GUI to enable a user friendly scraping experience.
- Use AI/Machine learning techniques to build an automated scraper.
- Create automated twitch scraper using twitch API to collect realtime data.

Data to Analyse

- Data added to two SQL tables Player_Data and Tournament_Data.

Sum prize pools based on month and compare with the change in players numbers during this time.

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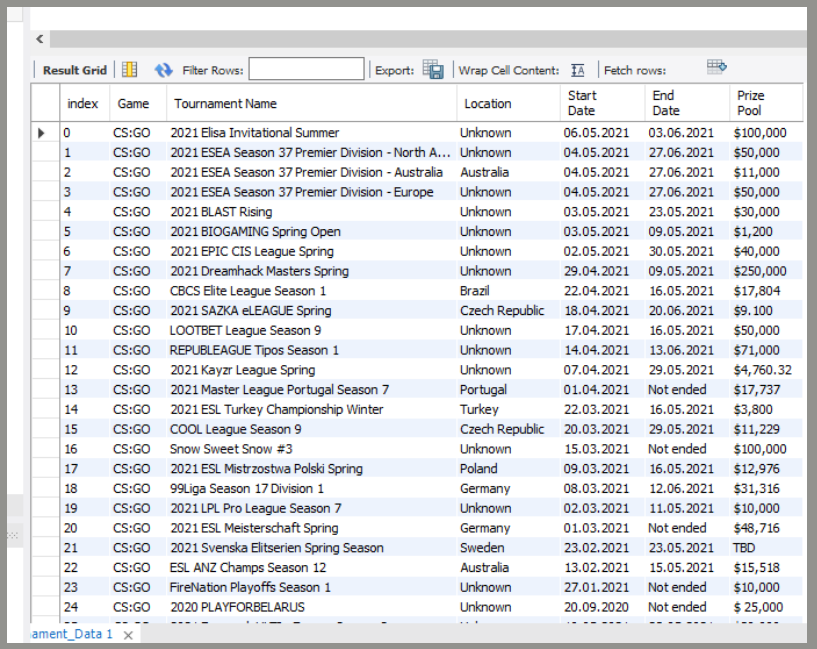
Tournament_Data



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

index	Game	Tournament Name	Location	Start Date	End Date	Prize Pool
0	CS:GO	2021 Elisa Invitational Summer	Unknown	06.05.2021	03.06.2021	$100,000
1	CS:GO	2021 ESEA Season 37 Premier Division - North A...	Unknown	04.05.2021	27.06.2021	$50,000
2	CS:GO	2021 ESEA Season 37 Premier Division - Australia	Australia	04.05.2021	27.06.2021	$11,000
3	CS:GO	2021 ESEA Season 37 Premier Division - Europe	Unknown	04.05.2021	27.06.2021	$50,000
4	CS:GO	2021 BLAST Rising	Unknown	03.05.2021	23.05.2021	$30,000
5	CS:GO	2021 BIOGAMING Spring Open	Unknown	03.05.2021	09.05.2021	$1,200
6	CS:GO	2021 EPIC CIS League Spring	Unknown	02.05.2021	30.05.2021	$40,000
7	CS:GO	2021 Dreamhack Masters Spring	Unknown	29.04.2021	09.05.2021	$250,000
8	CS:GO	CBCS Elite League Season 1	Brazil	22.04.2021	16.05.2021	$17,804
9	CS:GO	2021 SAZKA eLEAGUE Spring	Czech Republic	18.04.2021	20.06.2021	$9.100
10	CS:GO	LOOTBET League Season 9	Unknown	17.04.2021	16.05.2021	$50,000
11	CS:GO	REPUBLEAGUE Tipos Season 1	Unknown	14.04.2021	13.06.2021	$71,000
12	CS:GO	2021 Kayzr League Spring	Unknown	07.04.2021	29.05.2021	$4,760.32
13	CS:GO	2021 Master League Portugal Season 7	Portugal	01.04.2021	Not ended	$17,737
14	CS:GO	2021 ESL Turkey Championship Winter	Turkey	22.03.2021	16.05.2021	$3,800
15	CS:GO	COOL League Season 9	Czech Republic	20.03.2021	29.05.2021	$11,229
16	CS:GO	Snow Sweet Snow #3	Unknown	15.03.2021	Not ended	$100,000
17	CS:GO	2021 ESL Mistrzostwa Polski Spring	Poland	09.03.2021	16.05.2021	$12,976
18	CS:GO	99Liga Season 17 Division 1	Germany	08.03.2021	12.06.2021	$31,316
19	CS:GO	2021 LPL Pro League Season 7	Unknown	02.03.2021	11.05.2021	$10,000
20	CS:GO	2021 ESL Meisterschaft Spring	Germany	01.03.2021	Not ended	$48,716
21	CS:GO	2021 Svenska Elitserien Spring Season	Sweden	23.02.2021	23.05.2021	TBD
22	CS:GO	ESL ANZ Champs Season 12	Australia	13.02.2021	15.05.2021	$15,518
23	CS:GO	FireNation Playoffs Season 1	Unknown	27.01.2021	Not ended	$10,000
24	CS:GO	2020 PLAYFORBELARUS	Unknown	20.09.2020	Not ended	$ 25,000

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- Player_Data

index	Game	Month	Avg. Players	Gain	% Gain	Peak Players
0	Fornite	April 30, 2021	275,011,465	6,996,998	3%	33,014,465
1	Fornite	March 30, 2021	268,014,467	4,793,038	2%	30,144,709
2	Fornite	February 20, 2021	263,221,429	3,462,589	1%	28,544,163
3	Fornite	January 30, 2021	259,758,840	-4,556,986	-2%	25,115,476
4	Fornite	December 30, 2020	264,315,826	-6,739,715	-2%	22,715,791
5	Fornite	November 30, 2020	271,055,541	6,171,377	2%	25,491,419
6	Fornite	October 30, 2020	264,884,164	-2,647,738	-1%	23,244,208
7	Fornite	September 30, 2020	267,531,902	-25,334,353	-9%	10,701,276
8	Fornite	August 30, 2020	292,866,255	11,290,630	4%	15,619,534
9	Fornite	July 30, 2020	281,575,625	16,346,759	6%	11,263,025
10	Fornite	June 30, 2020	265,228,866	-16,459,434	-6%	11,493,251
11	Fornite	May 30, 2020	281,688,300	24,475,800	10%	11,267,532
12	Fornite	May 30, 2020	257,212,500	-13,537,500	-5%	11,145,875
13	Fornite	April 30, 2020	270,750,000	-14,250,000	-5%	11,732,500
14	Fornite	March 30, 2020	285,000,000	8,520,000	3%	14,250,000
15	Fornite	February 20, 2020	276,480,000	16,560,000	6%	11,980,800
16	Fornite	January 30, 2020	259,920,000	38,304,000	17%	10,396,800
17	Fornite	December 30, 2019	221,616,000	13,198,464	6%	9,603,360
18	Fornite	November 30, 2019	208,417,536	44,741,808	27%	9,031,427
19	Fornite	October 30, 2019	163,675,728	-10,109,383	-6%	8,183,786
20	Fornite	September 30, 2019	173,785,111	8,689,256	5%	6,951,404
21	Fornite	August 30, 2019	165,095,856	18,004,138	12%	7,154,154
22	Fornite	July 30, 2019	147,091,718	-46,365,868	-24%	6,373,974
23	Fornite	June 30, 2019	193,457,586	-19,345,759	-9%	9,672,879