



ClickHouse SQL Games

by Ramazan Polat

Intro

Title: ClickHouse SQL Games

Author: Ramazan Polat

Event: ClickHouse Istanbul Meetup

Date: 2022-10-21

Organizers: [Altinity](#) and [P.I. Works](#)

Repo:

<https://github.com/ramazanpolat/clickhouse-sql-games>

Slides: TBA



Ramazan Polat

ClickHouse Developer at



[Santiment.net](#) is a behavior analytics platform for cryptocurrencies, sourcing on-chain, social and development information on 2000+ coins.

What ClickHouse can do

- ✓ Run on any architect (x86, ARM, M1, RISC, Power9, ...)
- ✓ Scale to **1000s** of nodes
- ✓ Run AI models
- ✓ Beat almost any competitor in benchmarks

(the list goes on and on...)

? How about playing games?

What games?

Not like this one...



** Image generated with Midjourney*

1st game: Guess the number

You imagine a number in your head and let ClickHouse guess the number

DEMO

Game code:

<https://github.com/ramazanpolat/clickhouse-sql-games>

2nd game: WORDLE

S	T	O	R	K
C	R	A	N	E
A	L	I	E	N
B	E	G	I	N
D	E	N	I	M

DEMO

Game code:

<https://github.com/ramazanpolat/clickhouse-sql-games>

Bonus: WORDLE cheater

1. Goto <https://bit.ly/sql-games> *
2. Put gray letters in **BLACKLIST**, yellow and green ones in **WHITELIST** then run query

```
WITH
  'abc' AS BLACKLIST,
  'de' AS WHITELIST
SELECT num, upper(word) FROM (
  WITH
    splitByString(',',word) AS word_arr,
    splitByString(',', lower(BLACKLIST)) AS black_arr,
    splitByString(',', lower(WHITELIST)) AS white_arr,
    arraySum(arrayMap( black -> position(black IN word),black_arr))>0 as has_blacklist_letters,
    arrayMap(white -> position(white IN word)>0, white_arr) as white_arr_comp,
    arraySum(white_arr_comp) == length(white_arr) as has_whitelist_letters
  SELECT rowNumInAllBlocks()+1 AS num, word
  FROM
    url('https://raw.githubusercontent.com/ramazanpolat/clickhouse-sql-games/main/wordle/sgb-words.txt','CSV','word String')
  WHERE has_blacklist_letters=0 AND has_whitelist_letters=1
)
ORDER BY word;
```

* Full url: <https://fiddle.clickhouse.com/4d557fe5-479d-4de2-b0c7-6baa64bcd8d4>

What next?

- a)** Chat bot
- b)** Order pizza
- c)** Play Doom!
- d)** Other: _____

Your move!

If you are a **ClickHouse SQL game developer**, you can send your game to the following repo with a PR: <https://github.com/ramazanpolat/clickhouse-sql-games>

Thank You!

You can find games and codes in the following repo

<https://github.com/ramazanpolat/clickhouse-sql-games>

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