

The Word-le Finder:

Link: stapj.cis.sc4.edu/WordleFinder/index.html

The goal of this project is to capitalize on a public list of all the words used for the popular game “Wordle,” which has recently grown in popularity from being hosted on the New York Times’ webpage. To capitalize on the list being public, this webpage will allow the user to enter any sequence of guaranteed letters in their word to narrow down the results of the over 12,000 possible words to a few that may work.

My project was originally going to be based around the game Snake, although looking at the list of recommendations one last time, I saw the first one about Crosswords and immediately thought of Wordle. Thus, here we are.

Algorithm:

The algorithm for this project is not too complicated at all, and simply utilizes a clever usage of regular expressions in order to look up words from a separate database.

- When project is first run, use setup.php to create the database and fill in all of the words from the supporting text file (words.txt by default)
- Allow the user to enter up to a 5-letter word, along with any combination of other letters being left out (aside from being completely empty, we don’t want to be displaying 12,000 words now do we...)
- Any empty spaces within the word should be substituted for the wildcard character “_” to act as a substitute for one non-whitespace character.
- Use the words database to look up all matching words using regular expressions.

Query:

```
SELECT * FROM words WHERE word LIKE '<regex>'
```

- Display all results on the screen for the user, allow more words to be tested

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Test Set:

Using PHPMyAdmin, I am able to search through the word database to see what words are possible to get from the database as a result of the regular expression, and that can be used to test various combinations of letters within the program. For an actual test however, I figured I should put it to the test in a real game of Wordle first:

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First Run:

S	T	O	C	K

Current Status:

S	—	O	—	—
---	---	---	---	---

Search

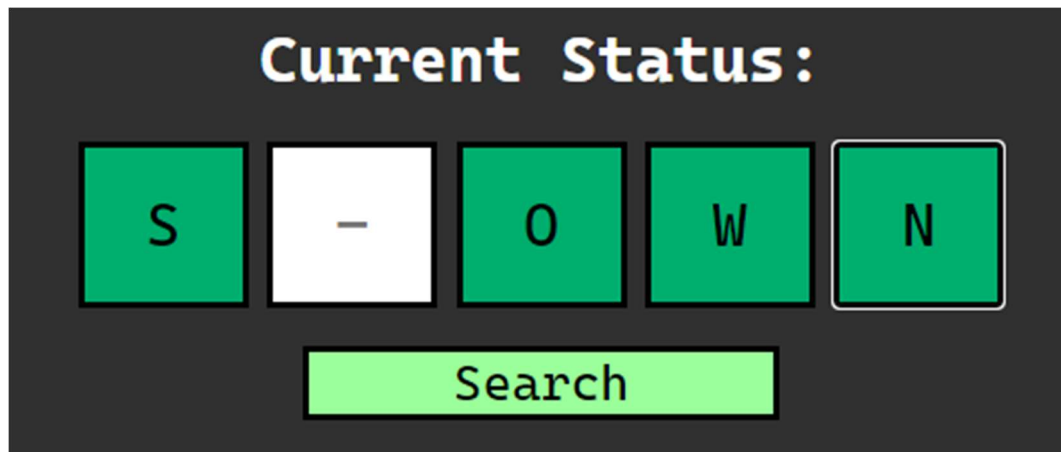
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Matches:		
shoat	stole	stogy
shone	smock	stork
snowy	snoek	smoko
snoke	smoor	stonn
sword	spoon	stoep
spook	stoup	slows
spoom	skool	snots
sloth	stoat	stove
sools	swopt	stows
snods	shoed	spoor
spoil	stoop	snook
smolt	swobs	showd
scops	scorn	shool
shott	stony	soote
sooth	spoot	shoal
snoep	shook	stoai
stock	smowt	snool
smoot	showy	smogs
stool	sooey	spots
scoup	shoot	stone
score	soops	slosh
stoln	shola	shoer

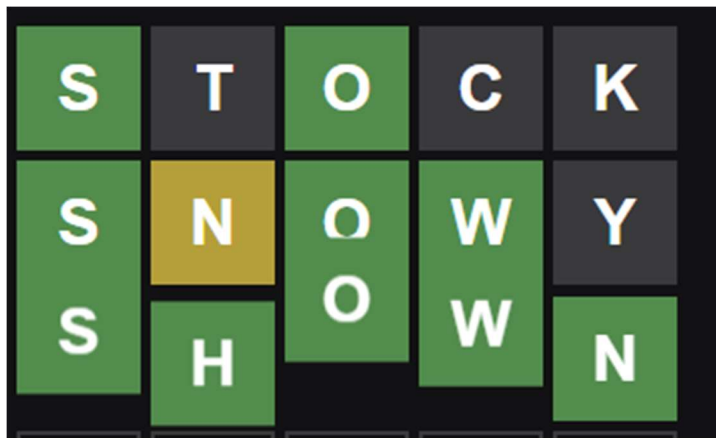
Second Run:

shone
snowy
snoke

S	T	O	C	K
S	N	O	W	Y



Third Run:



With that aside, it's clear to see that it works for a real game of Wordle, although there are a few other examples that I will use:

ome:

Current Status:

—

o

m

e

—

Search

Matches:

nomen	romeo	vomer
domed	comer	homed
homey	pomes	nomes
lomes	tomes	domes
lomed	gomer	homes
fomes	homer	momes
comes	comet	women

✓ Showing rows 0 - 20 (21 total, Query took 0.0056 seconds.)

(21 total results as shown)

pin__:

Current Status:

p	i	n	+	-
---	---	---	---	---

Search

Matches:

pinna	pinto	piney
pinny	pinon	pinos
pined	pinky	pinot
pinko	pinta	pings
pingo	pinch	pints
pinup	pinks	pinas

✓ Showing rows 0 - 17 (18 total, Query took 0.0049 seconds.)

```
SELECT * FROM words WHERE word LIKE "pin__"
```

(18 total results as shown)

ap__e:

Current Status:

a	p	-	-	e
---	---	---	---	---

Search

Matches:

apode	apace	apple
apage		

✓ Showing rows 0 - 3 (4 total, Query took 0.0049 seconds.)

```
SELECT * FROM `words` WHERE word LIKE "ap__e"
```

(4 total results as shown)

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Validation:

Index.html:

Document checking completed. No errors or warnings to show.

Used the HTML parser.

Total execution time 9 milliseconds.

processWord.php: (I couldn't find a great validator, hope this will suffice)

Enter Your Code

We'll perform a syntax check (lint) and a custom check for common errors.

```
<?php
include_once 'index.html';
require_once 'functions.php';

$letters = $_POST['letters'];

$word = "";
$wildcards = 0;
foreach($letters as $letter) {
    if($letter == "") {
        $word .= '_';
        ++$wildcards;
    }
}
```

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Results

- No issues found.

Did it miss something or make a false positive? Let me know:
mariolurig+php@gmail.com

Release Notes

Styles.css:

W3C CSS Validator results for TextArea (CSS level 3 + SVG)

Congratulations! No Error Found.

This document validates as [CSS level 3 + SVG](#) !