kolorScript

Where everything is simple!

From installation… to running your code

November 17, 2024 SVFIG Forth Day 2024

Intro

This is me …

19 years ago ☺

- George Phillip Orais
- Filipino born in Germany … moved to Philippines
- Highschool: GW BASIC
- BS Computer Engineer: 8088 ASM, Turbo C, PIC C, Visual BASIC, Java
- Software Engineer (Philippines): Visual C# 6.0, SQL, Visual C++ 6.0
- Embedded Software Engineer (China): 4bit ASM, Embedded C, Visual C# .Net, PicoLisp, Verilog
- Senior Embedded Software Engineer (Japan): Embedded C, Python, Lua, FORTH, Javascript

What does this logo mean?

ko lo r

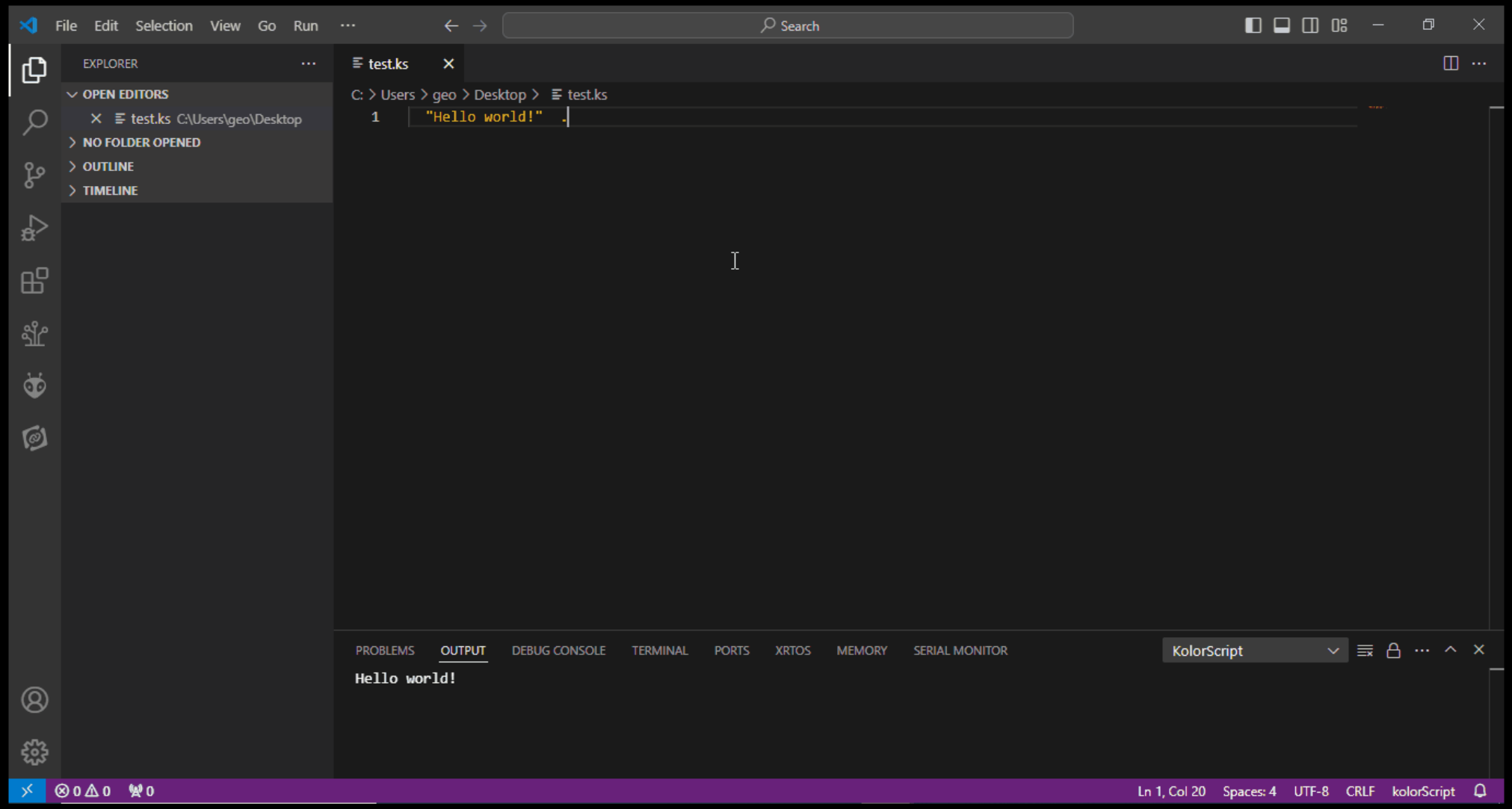
Kolor = “kolor” written in Baybayin

Where:

- “kolor” means color in Filipino language
- Baybayin is an ancient Filipino script

What is kolorScript?

A. It is a modern variant of colorForth



- vscode extension
- ASCII text files

B. It is a hybrid Forth

colorForth	ANS Forth	Others
* + 2/ 2* and xor ; push pop dup drop over swap nip if -if then for next @ ! load .	/ - or min max abs = > < i open-file read-line close-file .s	>> << not ms .sih cls num? str? utime long-timestamp medium-timestamp short-timestamp drop-all count-all split-str index-of sub-str . . .

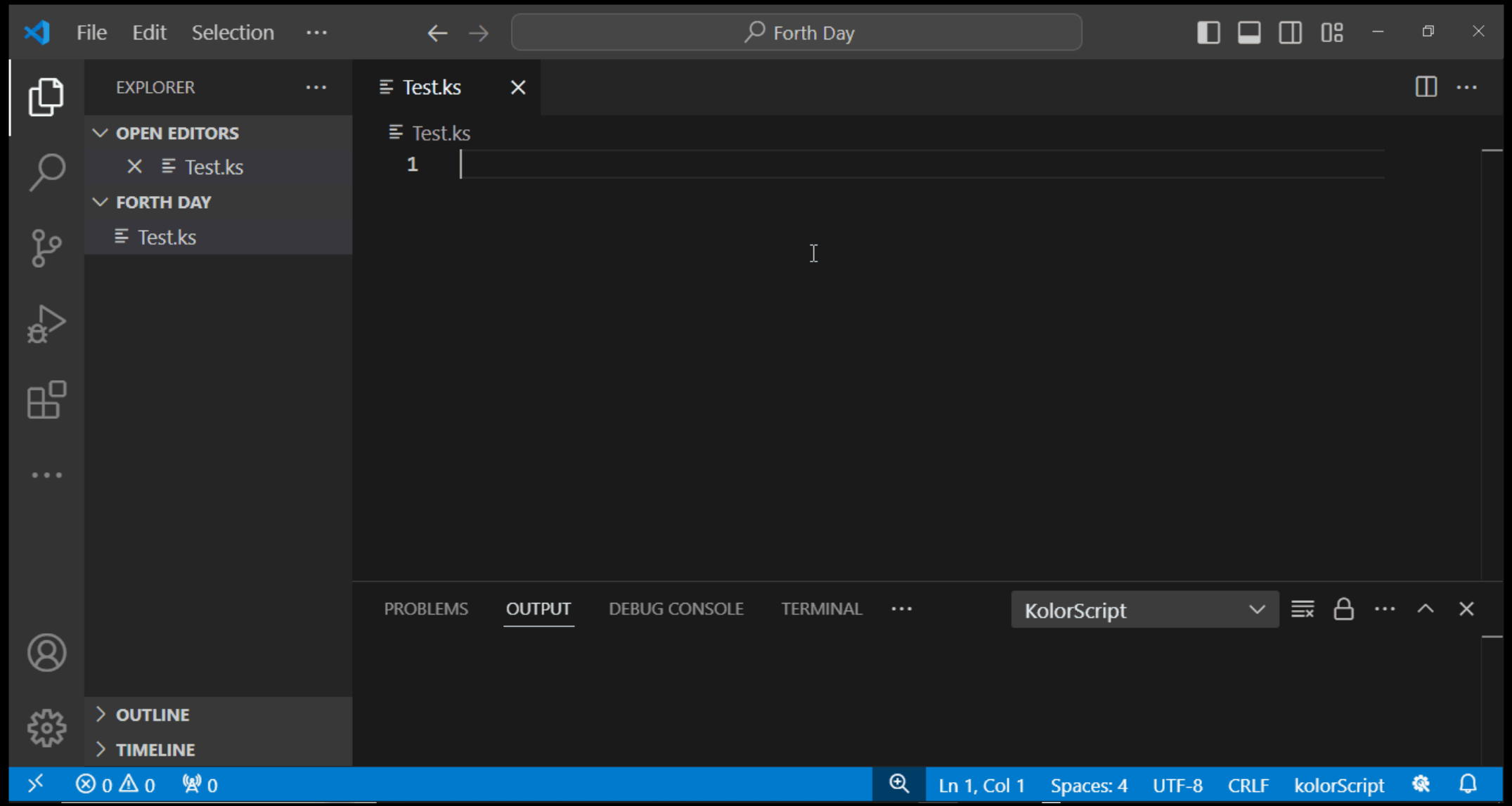
- Numbers are written as signed integer, hexadecimal, or float
- Strings are enclosed with single or double quote

C. It is a Forth intended for scripting

- Rapid prototyping
- Data parsing
- Code/Data generator
- Test automation (probably)
- Good alternative for Python, JavaScript, Lua or Ruby

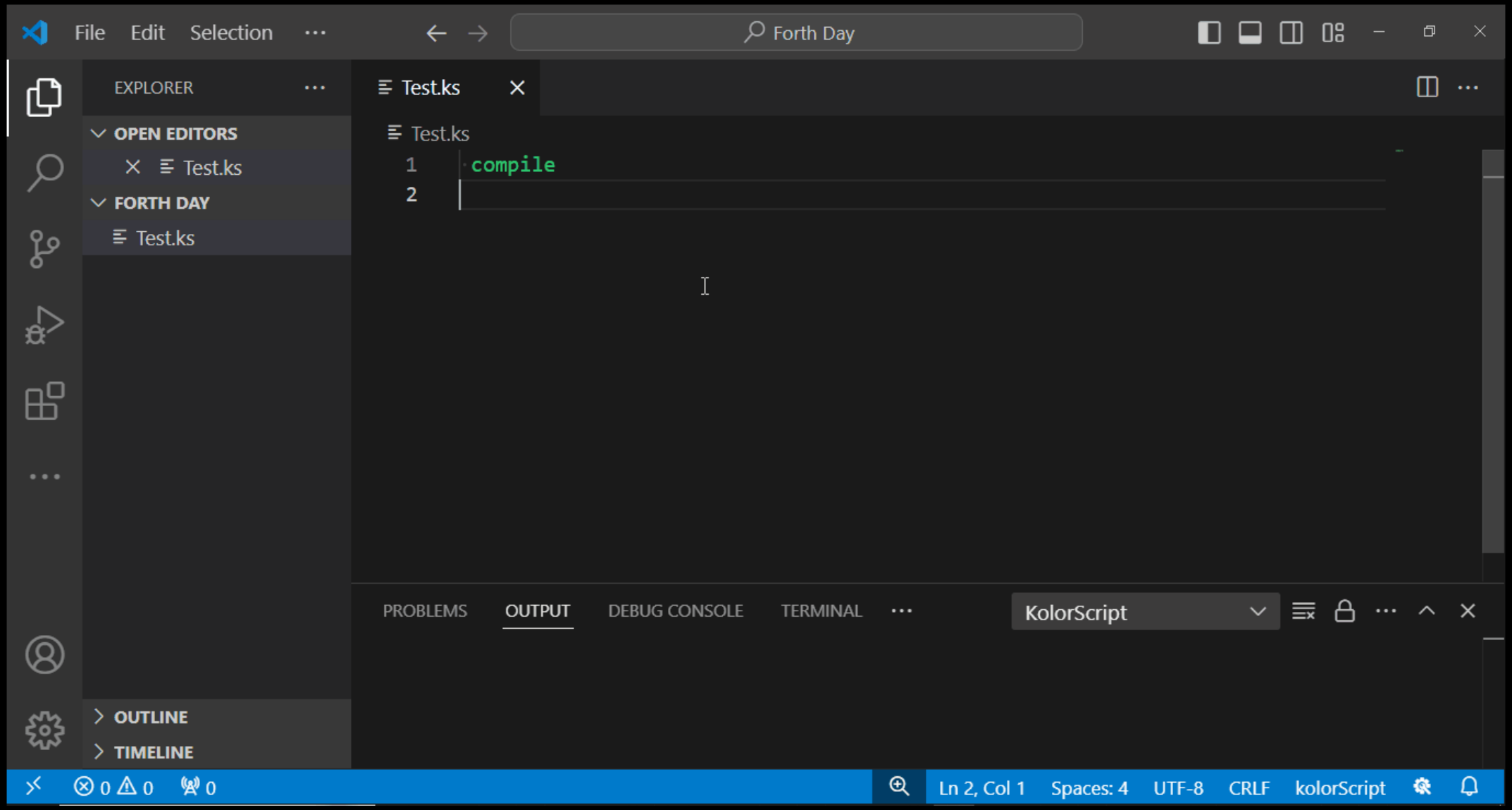
What are the colors in kolorScript?

GREEN means “COMPILE this word”



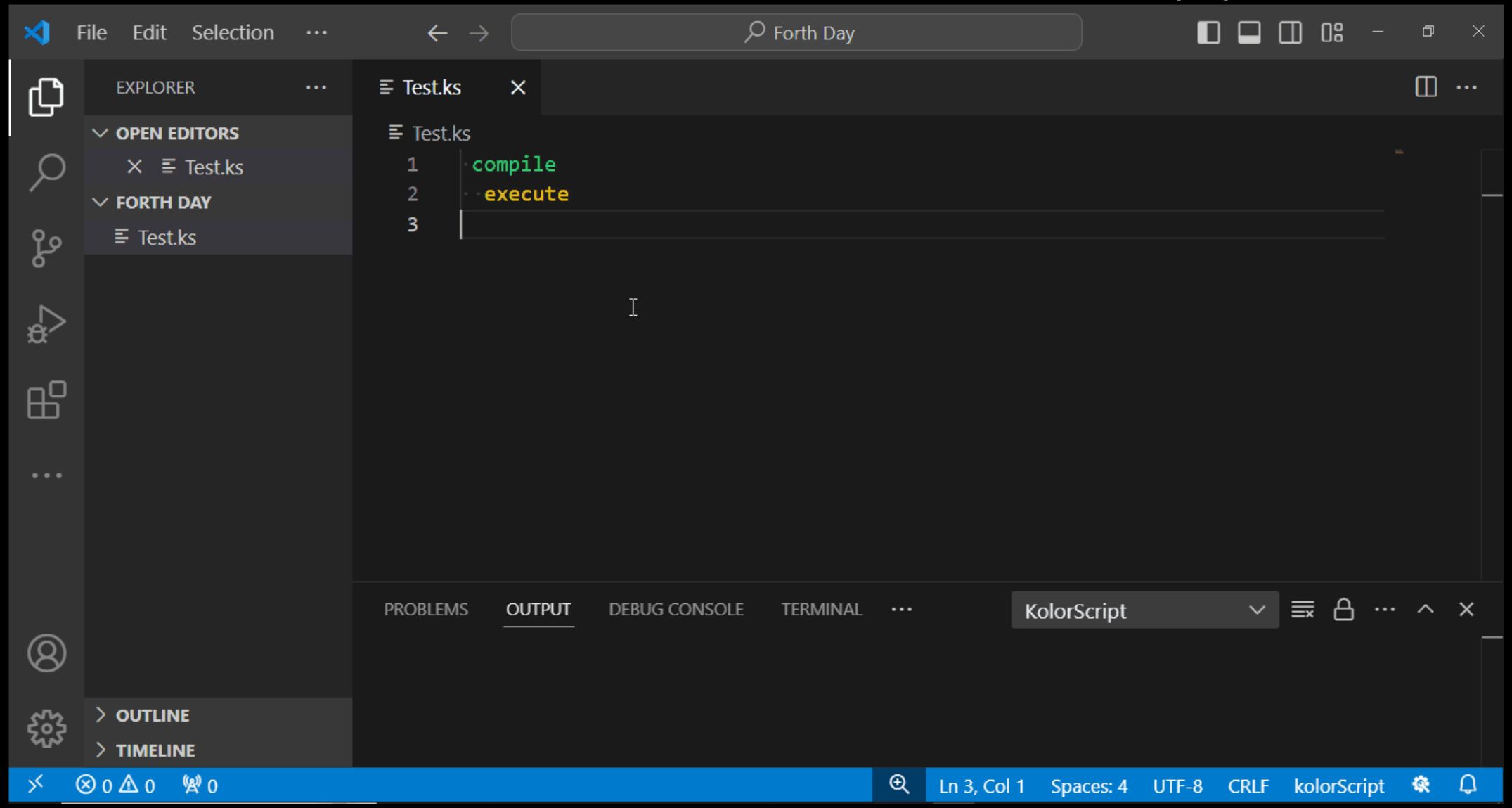
Tag rule: prefix 1 space

YELLOW means “INTERPRET this word”



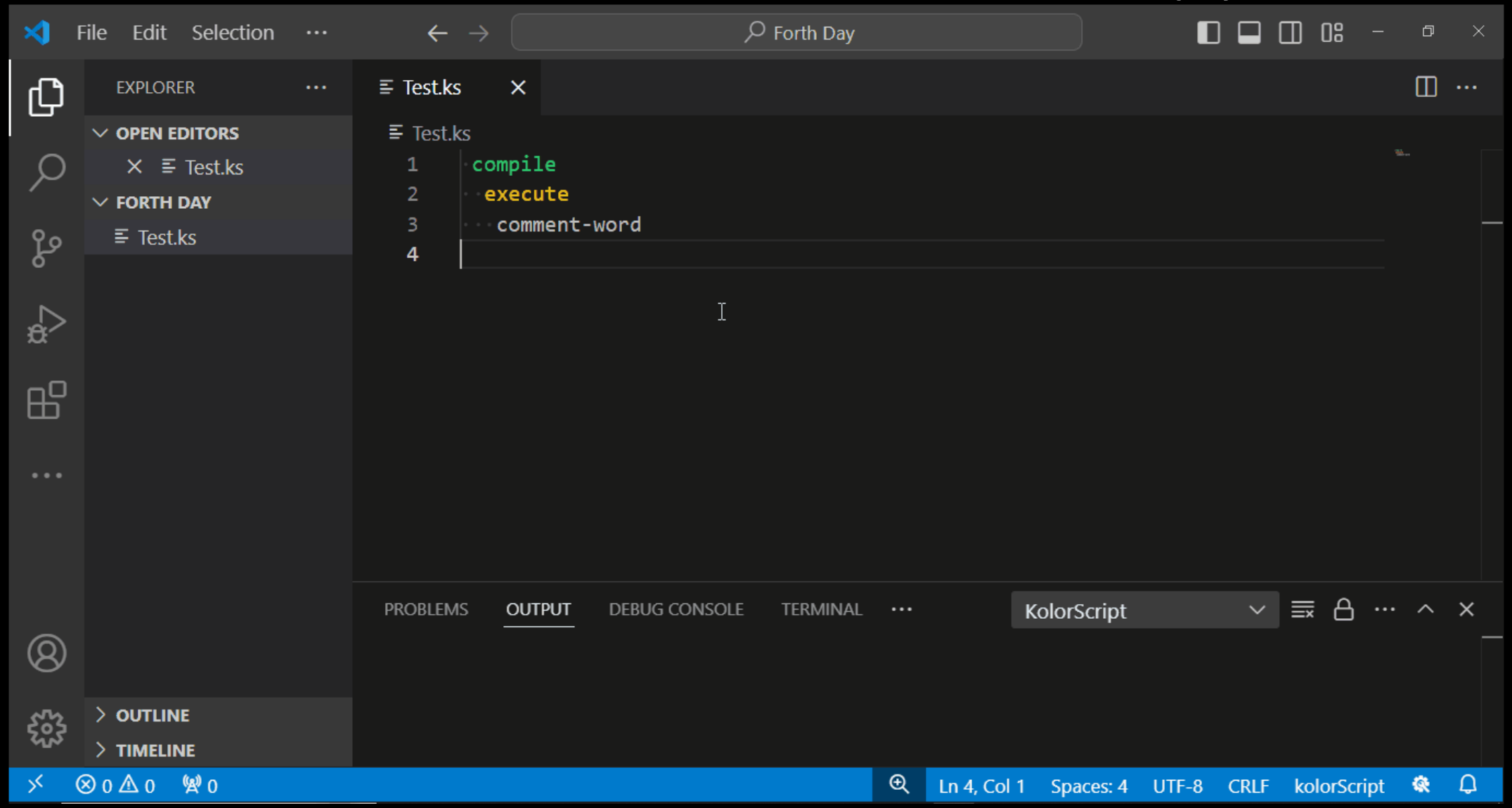
Tag rule: prefix 2 spaces

GRAY means “COMMENT out this word(s)”



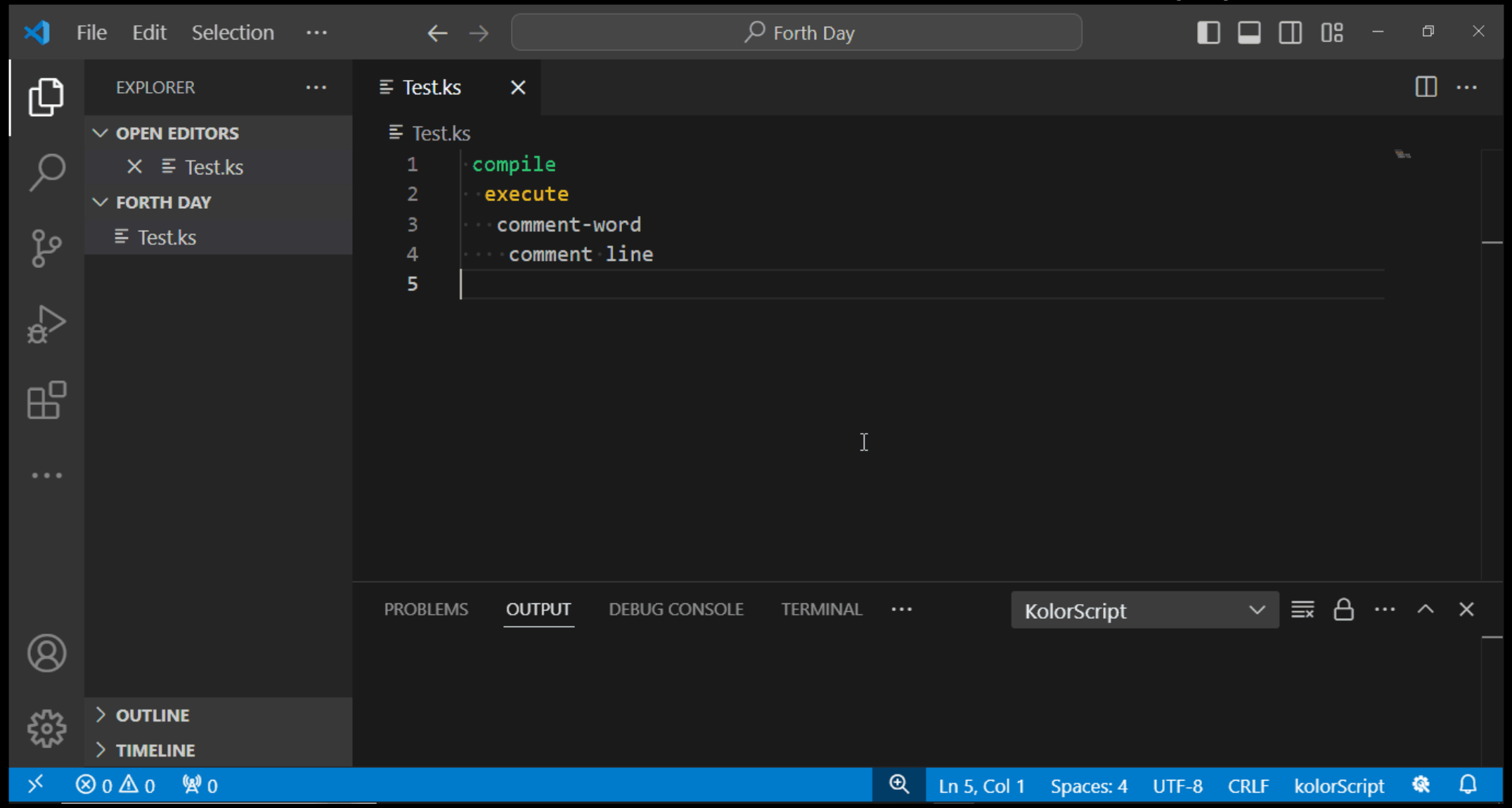
Tag rule: prefix 3 spaces

GRAY means “COMMENT out this word(s)”



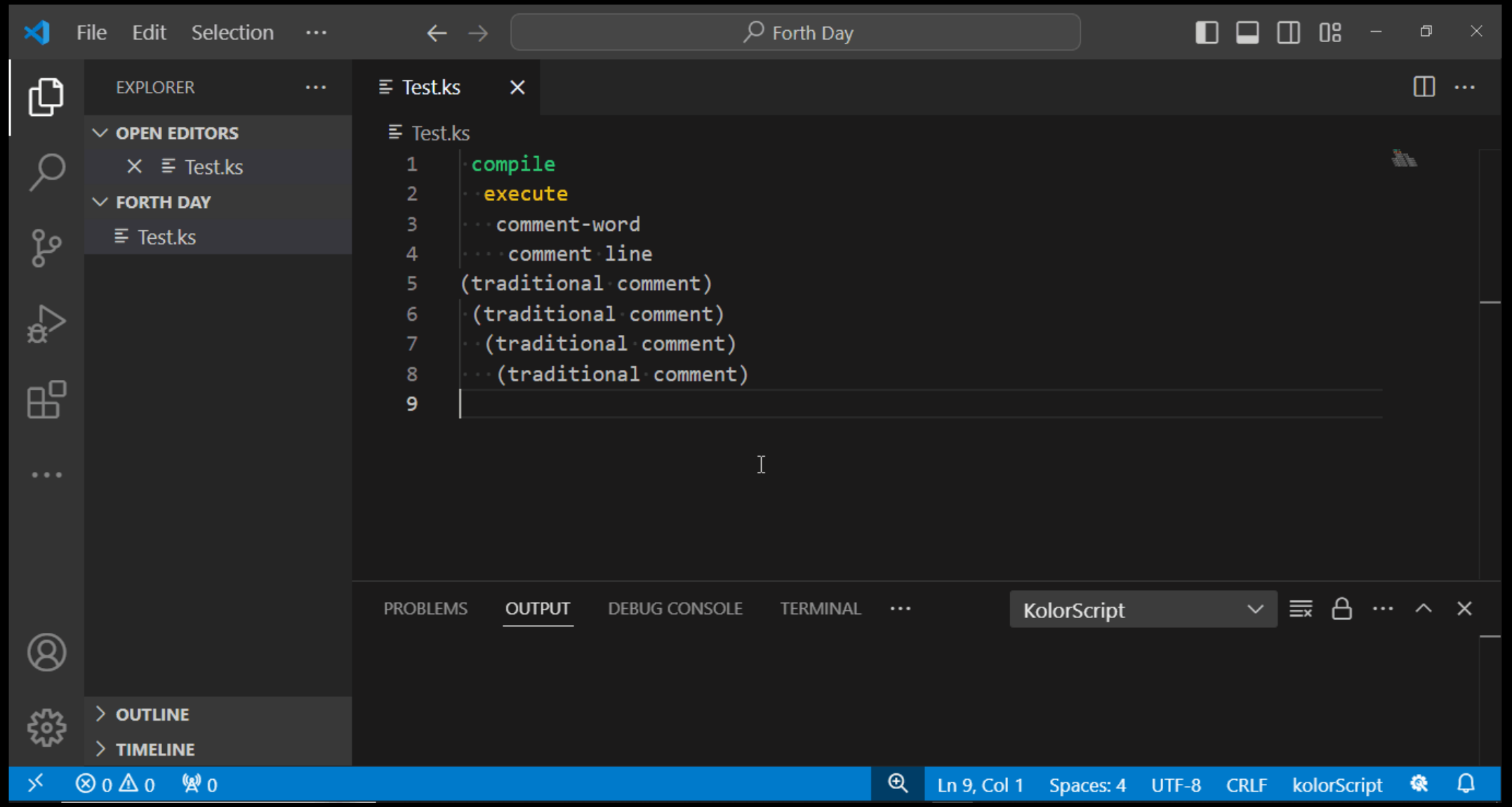
Tag rule: prefix 4 spaces

GRAY means “COMMENT out this word(s)”



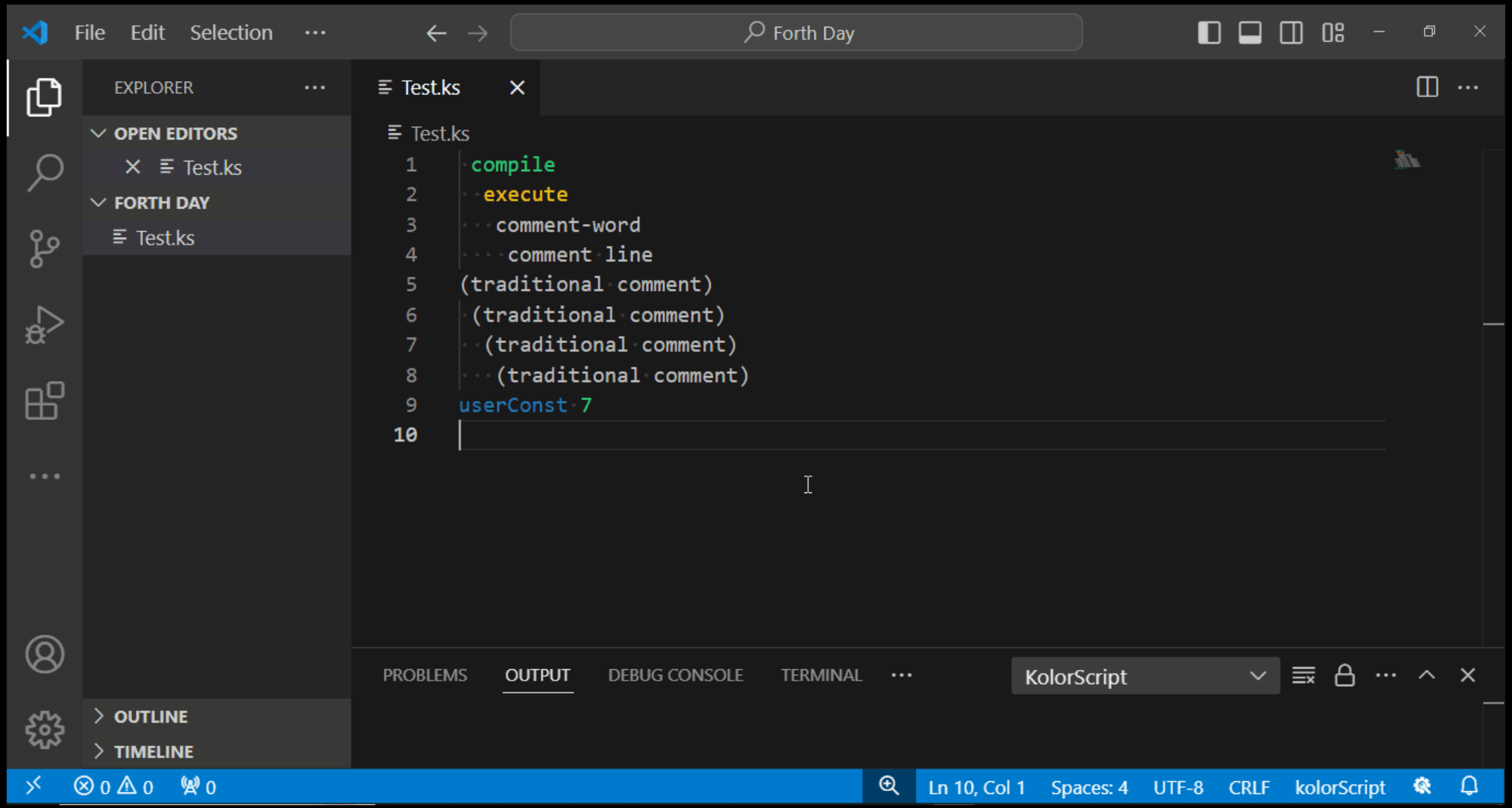
Enclosed by parenthesis

BLUE means “define a CONSTANT”



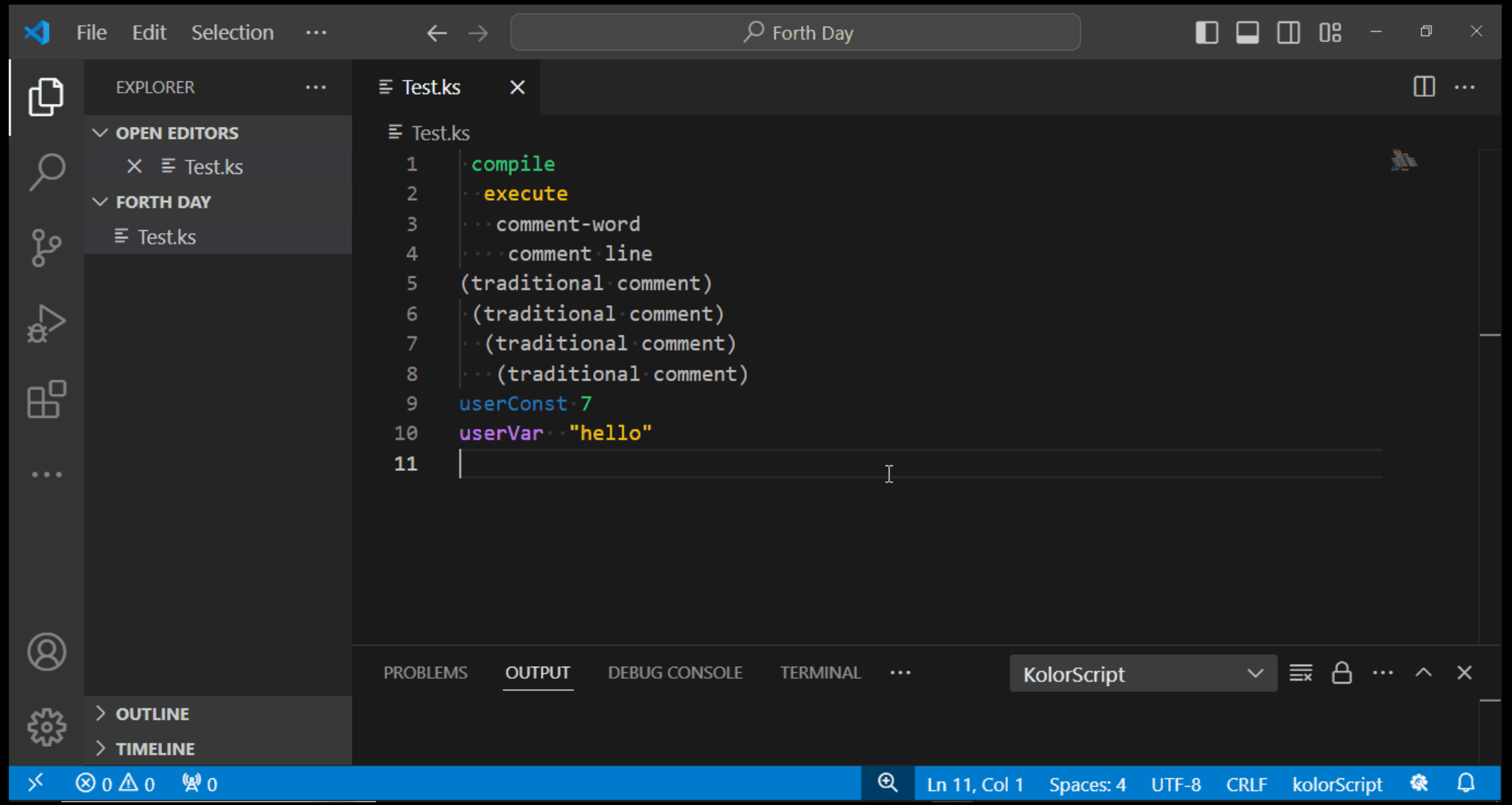
Tag rule: No prefix space AND postfix 1 space

MAGENTA means “define a VARIABLE”



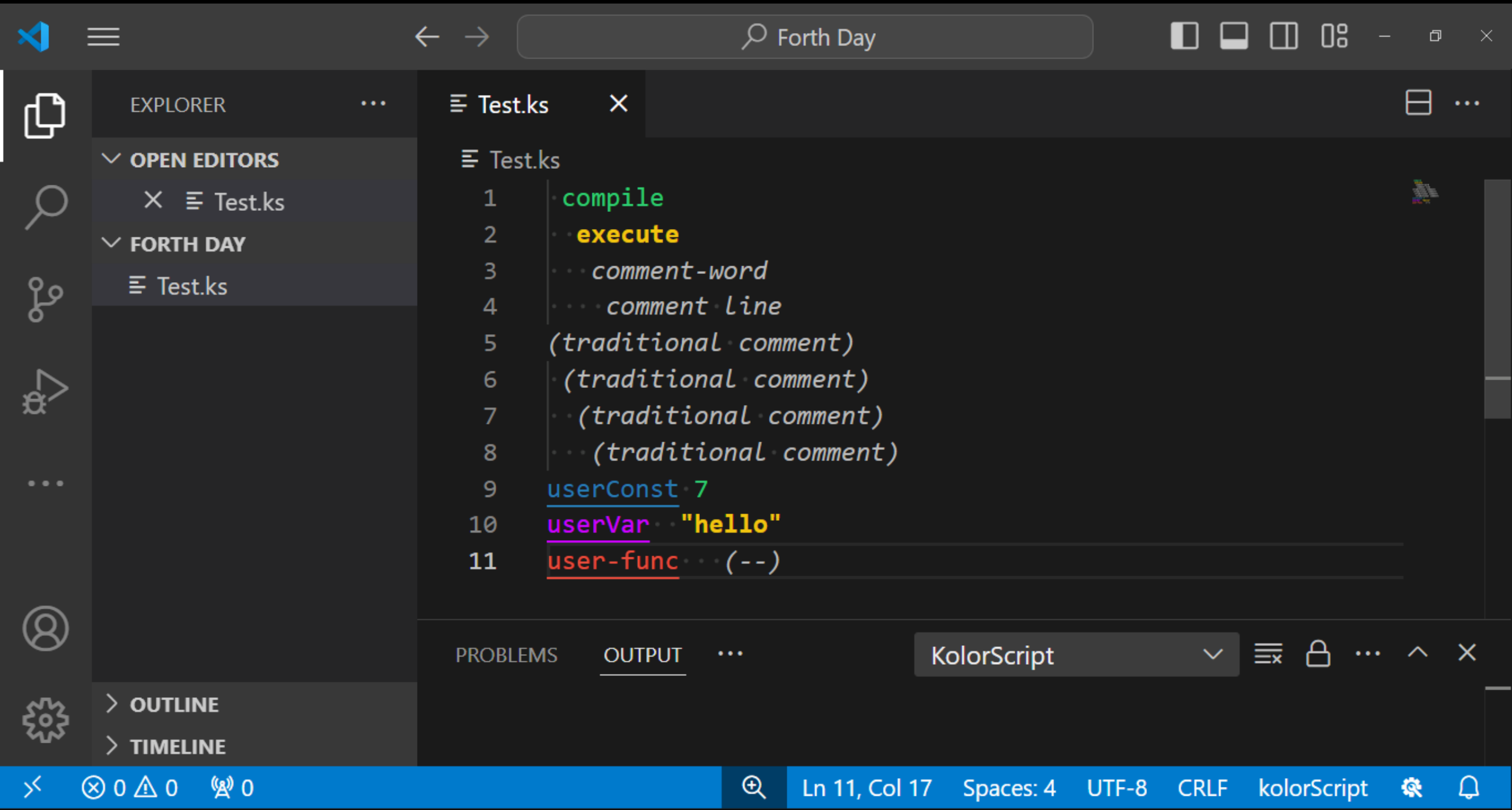
Tag rule: No prefix space AND postfix 2 spaces

RED means “define a FUNCTION”

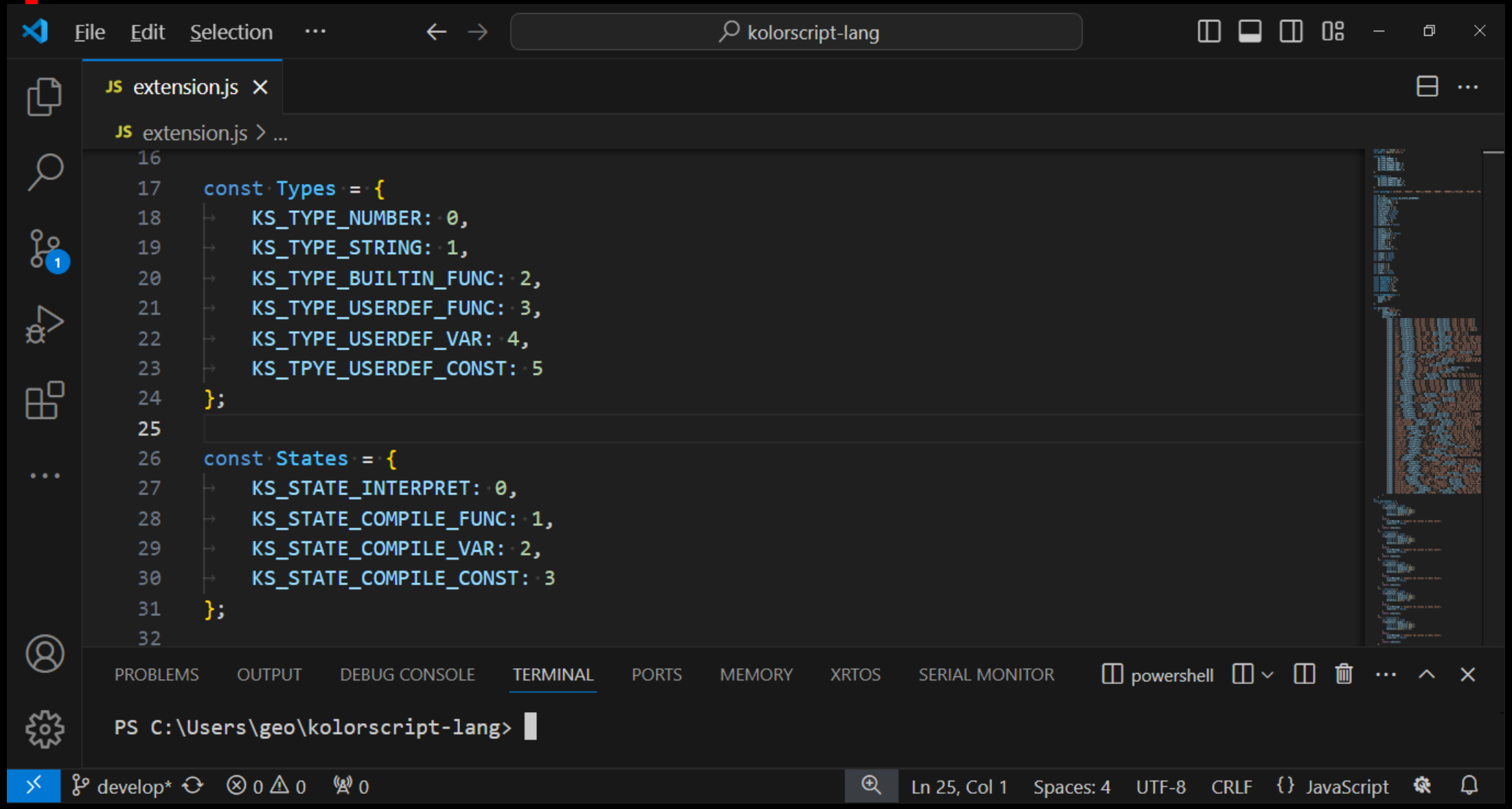


Tag rule: No prefix space AND postfix 3 or 4 spaces

How does kolorScript address color blindness?


Forth Day
EXPLORER
OPEN EDITORS
Test.ks
FORTH DAY
Test.ks
OUTLINE
TIMELINE
Test.ks
Test.ks
compile
execute
comment-word
comment line
(traditional comment)
(traditional comment)
(traditional comment)
(traditional comment)
userConst 7
userVar "hello"
user-func (--)
PROBLEMS
OUTPUT
KolorScript
0 0 0
Ln 11, Col 17
Spaces: 4
UTF-8
CRLF
kolorScript

Types and States



PROS

- Very simple and very less code
- Codes is sharable using modern repo
- Runs on all major OS with no changes

CONS

- Consumes huge resource due to vscode
- Slow performance due to layer of abstraction
- Color visibility is still within local editor

Currently for kolorScript

- Version 1.1.13 is available in VS Marketplace
- Stock-Watcher project for John Peters
- Improvements still on going

What's next for kolorScript?

- Complete the documentation
- Provide example codes
- Add necessary/requested words
- Debugger
- Standalone VM
- Syntax highlighting on GitHub

Why create kolorScript?

- I love colorForth!
- I want to use colorForth anytime
- I want to access colorForth easily
- I want to run colorForth code on all major OS
- I want to introduce colorForth to non-Forther
- I want to share colorForth codes

Demo time!