Coding Challenge

In-memory store - January 2021

Aim

Create an in-memory store which can store ranges of integers with an associated colour and return a colour for a given integer.

Success Criteria

Create an implementation to a standard which represents how you code with proof that your code works. We're looking at the logic of the code itself rather than any libraries/frameworks that you use.

The exercise should take around 1-2 hours, but you are not limited on the amount of time you can spend. Feel free to use the IDE of your choice. We will discuss your solution in the upcoming interview. Please return your source code to the recruiter.

Interface

The following functions are required:

Store

Given a string representing a range of between two integers and a colour, store this range and colour.

Examples

```
store("00-06", BLUE)
store("24-75", YELLOW)
store("40-99", RED)
```

Get

Given a string representing a two digit integer, if this integer falls in a stored range return the colour of this range, otherwise return `GREY`.

Examples

```
get("03") => BLUE
get("12") => GREY
get("99") => RED
```

Notes

- Possible integers range from 00 to 99 and are always two digits
- Ranges are inclusive
- There can be more than one range for a colour
- Stored ranges can overlap
- When a range of two or more colours overlaps the colour returned should be the colour of highest priority

Colours

Colour	Priority
`YELLOW`	1 (highest)
`RED`	2
`GREEN`	3
`BLUE`	4
`GREY`	5 (lowest)

Further Examples

```
store("34-78", RED)
store("31-41", YELLOW)
store("64-98", GREEN)

get("31") => YELLOW
get("39") => YELLOW
get("50") => RED
get("68") => RED
get("91") => GREEN
get("99") => GREY

store("90-99", BLUE)

get("91") => GREEN
get("99") => BLUE
```