

The Task

What are the most popular color in country flags? Write a Kotlin program to find out. (Kotlin programs can use the Java image and networking libraries.)

The program needs three kinds of input:

- The list of countries of the flags to analyze. This will be given by arguments on the command line. The country will be give by a string of three characters: the ISO 3166 three letter country code.
- The flags themselves are found on the web at
- <https://cs.fit.edu/~ryan/images/flags/large/.png>

For example,

```
https://cs.fit.edu/~ryan/images/flags/large/sau.png
```

For simplicity, we assume that each pixel in an image represents the same area in all of the data set.

- The color palette. The color of the pixels in the images will be quantized to the closet (in 3d Euclidean distance) to an RGB color set. This set (of indeterminate number) is to be read from the standard input stream. For example, this list of three named colors:
- `red 255 0 0`
- `green 0 255 0`
- `blue 0 0 255`

Output

Write to the standard output stream the colors in order of the number of pixels in the images for the flags of the countries given as command line arguments.

Express the number of pixels of each color in parts per thousand rounded to the nearest integer. The sum of all the colors should therefore be approximately 1,000. For example, given the color palette above, we might have:

```
red      789
blue     111
green    100
```


Turning it in

You may work in groups of no more than two people. You may not work with the same person on any of the remaining projects. If in a group of two, make sure both names are in the program and turn in the assignment from just one account. By the due date, turn in your source program. At the beginning of your source file include the following header information in comments:

```
// Author: name1, e-mail address
// Author: name2, e-mail address
// Course: CSE 4250, Summer 2021
// Project: Proj2, The Color of Flags
```

If working in a group, just submit the assignment once; it does not matter who submits.

Turn in the Kotlin source code for the program using the [submission server](#). Programs with warnings are not accepted. Be sure your name is in comments at the beginning of your program. For your convenience, here is a submission form for this assignment.

	<p>File 1</p> <p>Control code: <input type="text"/></p> <p><input type="button" value="Submit"/> <input data-bbox="829 974 915 1024" type="button" value="Reset!"/></p>	<p>file=flags.kt</p> <p>Course=cse4250</p> <p>Project=proj2</p>
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All submissions are checked for similarity against other programs. If the amount of similarity is unusually high, the submission will receive no credit regardless of the reason.

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