

About this Challenge

We would like to give you an opportunity to demonstrate your technical skills beyond just writing code on a whiteboard. This challenge is a chance to see your ability to design, execute, and explain code to a remote audience. It also shows us that you can take a high-level business feature and create a flexible and reasonable solution that meets these requirements. While we will definitely be running your code and checking for expected output, you should also keep in mind that we are looking for the why and how. Comments are very helpful, so don't be afraid to add them!

We expect you to write original, production quality code that is well-tested. This should take about 4-6 hours. You can choose any language you are most comfortable with. You can also use any libraries you think might help you solve your problem, but please explain why you chose them.

We're looking for:

- How do I install it? Are there any dependencies? Is that documented?
- Does it run? Do we get the expected output? Are there unexpected errors?
- Is the code designed well and cleanly?
- Is it easy to add more functionality to this code?
- Are expected errors handled appropriately?

Requirements

Create a program that we can use to add promotional images to our advertisements. Our ads vary in size, and so sometimes we may include one large image or sometimes we may include several images in a paged gallery within the ad. This program can be a command-line program, a library, or an API.

Expected Input

- Number of images to output
- Image keywords to match as a comma-separated-value, i.e. "blue, flowers, desert"

Expected Output

- Total number of results
- Image URL
- Image Width
- Image Height

The output format can be a table of HTML data if you feel that is easier, but in most cases simply printing output to the command line or screen in a structured format will be good enough.

Image Data

You can use a simple hash or array of data, a flat file of data (like JSON or TOML), or you can build a small db table if you are so inclined. The data is not as important as the structure of your code, your functions, and the ability for us to run your code with this test data.