

Welcome To Your Proper SWE Coding Challenge!



For this assessment, you will be asked to demonstrate skills applicable to the Software Engineer role at Proper.

With this challenge we're looking to learn about:

- Your approach to problem solving
- Code hygiene
- Understanding of common coding practices
- Refactoring and continuous improvement of your own code
- Trade offs between readability, efficiency, ease of development, maintenance, etc.

Task Overview

1. **Assessment and Coding**

Below you will find the challenge to work on in your own time. Please submit this at least 24 hours before your panel session.

2. **Panel Session (about 50-60 mins)**

In the panel session we will discuss the result and your approach. The panel will consist of 2 or more engineers and Proper employees. Please be prepared to go into detail about why you chose to program it in any given way.

The Challenge

Write a program that downloads the images from <http://icanhas.cheezburger.com/> and stores them locally. Only download graphics that are memes on the page and not sponsored content.

Final Deliverable:

For the submission create a repository on GitHub. Make this repository either publicly available or add @roboshoes, @kdepp, @jmorazano, @benitezJulietaSol to have read access. Since the challenges are built on top of each other, please tag the repository with case-1, case-2, (etc.) as you go along so that in the review we can jump from one point to a later one to see the progress of the program.

It is allowed to use any package or dependency but use appropriately. You might have to explain your reasoning at the review.

Case 1

Write the program described above that when executed downloads the first ten memes on the homepage of the url and stores those images locally in a folder. Name the images 1.jpg ... 10.jpg

Case 2

Extend the program to accept a parameter named `amount` that determines how many memes need to be downloaded. Hint: if it's more than on the first page, I expect the program to go to the next page.

Case 3

Enable the above program to run on multiple threads. With an additional Parameter sent as `threads` that is a number between 1 and 5, parallelize the process while continuing to support the `amount` flag.

Case 4 (Bonus if you're feeling excited)

Describe or showcase a testing strategy for the program. This could be unit, integration, or end to end tests.

You may email mattie@proper.ai with as many questions as you like prior to presenting.

Your work must be delivered 24 hours before your panel interview. Please email the URL to the Github repository to mattie@proper.ai.

Thank you, and good luck! :)