Optional Contest: Scheme Art

scheme_contest.zip (scheme_contest.zip)

The output is art,
But what about its source code?
It's just as abstract.

Instructions

> This contest is completely optional!

Entries are due at 11:59pm on Monday, 11/30.

Here are the steps to enter the contest:

1. Download scheme_contest.zip (scheme_contest.zip).
2. From your Scheme project, copy all the Python files to the scheme_contest directory. This should be:
   - `buffer.py`
   - `scheme_builtins.py`
   - `scheme_reader.py`
   - `scheme.py`
   - `ucb.py`
3. Copy the latest version of `scheme_tokens.py` into the scheme_contest directory. You can find this file here: scheme_tokens.py (https://cs61a.org/proj/scheme/scheme_tokens.py)
4. Complete the `contest.scm` file (you can render your drawing with `python3 scheme.py contest.scm --pillow-turtle --turtle-save-path output`). For more information on drawing graphics, you may find the Scheme Built-in Reference (/~cs61a/fa20/articles/scheme-builtins.html#turtle-graphics) to be helpful.
5. Upload `output.png` which was created by the previous command.

In `contest.scm`, the `draw` procedure should draw your entry and then exit on click.

All entries, including their source code, will be distributed to your fellow students for voting. Please **do not include personal info in your submission.**

You are allowed to work with one other partner for this contest. You should add your partner on Ok and make a single submission.

Important: when you are ready to submit, follow **both** these steps:

- Run `python3 ok --submit` to submit your `contest.scm` file to Ok.
- Fill out the contest form (http://links.cs61a.org/scheme-contest). Make sure the information here is correct, since we'll be using it to generate your entry in the Scheme art gallery.

Troubleshooting: Did you complete Scheme Challenge Version, or are you experiencing errors when trying to render your artwork? If so, check out this piazza post: troubleshooting (https://piazza.com/class/kdz4wzqnb6052o?cid=4028)

Contest Description

Create a visualization of an iterative or recursive process of your choosing, using turtle graphics. Your implementation must be written entirely in Scheme using the interpreter you have built. All computation must be done in Scheme.

We will have two categories of submissions:

- *Featherweight*: Fewer than 512 Scheme tokens (including parentheses)
- *Heavyweight*: Fewer than 4096 Scheme tokens (including parentheses)

No single token may contain more than 50 characters. If your entry requires more tokens than are allowed in the heavyweight category, please contact the course staff for special permission to submit an even longer entry.

Extra credit will be awarded as follows:

- 3 points to 1st place in each category
- 2 points to 2nd place in each category
- 1 points to 3rd place in each category

You can check the number of tokens in a Scheme file called `contest.scm` **by running the following command using the latest version of scheme_tokens.py (https://cs61a.org/proj/scheme/scheme_tokens.py):**

```
python3 scheme_tokens.py contest.scm
```

Entries (code and images) will be posted online, and winners will be selected by popular vote. The top three entries in each category will be announced on Piazza after voting is closed.

To improve your chance of success, you are welcome to include a title and descriptive haiku (http://en.wikipedia.org/wiki/Haiku) in the comments of your entry, which will be included in the voting.

Contest Rules

Before submission, please ensure that your entry abides by these guidelines:

- Entries must not contain tokens that contain more than 50 characters and must be submitted under the correct category (featherweight/heavyweight).
- Entries must not contain any political content.
- Entries must not contain any offensive, sexually explicit, or racially, ethically, or otherwise objectionable content.
- Entries must not contain any personal information.

We reserve the right to disqualify any entries that do not follow these guidelines.

Past Entries

For inspiration, you can peruse these galleries of past entries. Please note that certain submissions may not follow the current guidelines.

- Summer 2020 (http://inst.eecs.berkeley.edu/~cs61a/su20/proj/scheme_gallery/)
- Spring 2020 (http://inst.eecs.berkeley.edu/~cs61a/sp20/proj/scheme_gallery/)
- Fall 2019 (http://inst.eecs.berkeley.edu/~cs61a/fa19/proj/scheme_gallery/)
- Summer 2019 (http://inst.eecs.berkeley.edu/~cs61a/su19/proj/scheme_gallery/)
- Spring 2019 (http://inst.eecs.berkeley.edu/~cs61a/sp19/proj/scheme_gallery/)
- Fall 2018 (http://inst.eecs.berkeley.edu/~cs61a/fa18/proj/scheme_gallery/)
- Summer 2018 (http://inst.eecs.berkeley.edu/~cs61a/su18/proj/scheme_gallery/)
- Spring 2018 (http://inst.eecs.berkeley.edu/~cs61a/sp18/proj/scheme_gallery/)
- Fall 2017 (http://inst.eecs.berkeley.edu/~cs61a/fa17/proj/scheme_gallery/)
- Summer 2017 (http://inst.eecs.berkeley.edu/~cs61a/su17/proj/scheme_gallery/)
- Spring 2017 (http://inst.eecs.berkeley.edu/~cs61a/sp17/proj/scheme_gallery/)
- Fall 2016 (http://inst.eecs.berkeley.edu/~cs61a/fa16/proj/scheme_gallery/)
- Summer 2016 (http://inst.eecs.berkeley.edu/~cs61a/su16/proj/scheme_gallery/)
- Spring 2016 (http://inst.eecs.berkeley.edu/~cs61a/sp16/proj/scheme_gallery/)
- Fall 2015 (http://inst.eecs.berkeley.edu/~cs61a/fa15/proj/scheme_gallery/)
- Spring 2015 (http://inst.eecs.berkeley.edu/~cs61a/sp15/proj/scheme-gallery/)
- Fall 2014 (http://inst.eecs.berkeley.edu/~cs61a/fa14/proj/scheme_gallery/)
- Spring 2014 (http://inst.eecs.berkeley.edu/~cs61a/sp14/proj/scheme_contest/scheme_contest.html)
- Fall 2013 (http://inst.eecs.berkeley.edu/~cs61a/fa13/proj/scheme_contest_gallery/scheme_contest_gallery.html)
- Spring 2013 (http://inst.eecs.berkeley.edu/~cs61a/sp13/projects/scheme_contest_gallery/scheme_contest.html)
- Fall 2012 (http://inst.eecs.berkeley.edu/~cs61a/fa12/projects/scheme_contest.html)

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