Working Prototype - Known Problems Report

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Website

- No interface to the internal payment system.

Client Bindings

API Server

- Billing amount not implemented

Master Server

The controller-daemon is somewhat functional, but there are some issues that prevent it from being classified as “done”. These include:

- Not having the ability to shut down unused instances.
- Occasionally failing to spin up a worker VM correctly
    - If there is a fault, it is not reported or handled. The user must check this manually.
- Error handling is not as robust as it should be

POD Build system

At present, this framework is simple enough that there are no known issues, other than if the user has not logged into the docker hub, then the build will fail, as once a build is complete, the build script will attempt to push the newly-built docker image to the docker hub. If this step fails, the entire build fails.

POD

- On some Ubuntu installations, pod_ocr_test.py will fail because of a faulty installation of Python’s editdistance module.
- pod_spam_test.py is currently incomplete.
- Spam detection has poor accuracy.

API

- Pagination has a small bug that sometimes results in it not finding the previous page if the previous page is the first page of the available resources. This means if you are on page #2 sometimes the link back to page #1 is broken.
- Spam Detection has been implemented by Nikita as a library and it works as is, but the API server does not have a working implementation. The task-lib entry to handle the spam recognition is broken and thus spam-recognition is not working on either the website or through raw API calls.
- Payment and coupon handling is implemented, the routes exist and are working and we have successfully interfaced with the Stripe API, but as of right now we are not enforcing payments.

WEBSITE

- Spam detection is not working because there is a bug with the code in the API server.
- Spinners are sometimes off-centered which makes it look weird. This only happens sometimes though.
- No Payment section is implemented on the website side yet, so right now there is no means of submitting payment information even though the internal infrastructure is there.
- Displaying the predictions of the various POD services is not formatted in a nice way, we just dump the raw json to the div instead of formatting each nested object in a nice way.

QUEUE

- Data Races - When running multiple queue workers to parallelize workloads, there is a distinct possibility of a data-race error occurring. This happens because all files from the same workload try to increment the same counter to keep track of how far along the transaction is, when we parallelize this workload it's possible that two workers try to increment the counter simultaneously resulting in a data race error and the transaction failing.

CLIENT-Python library

- User information isn't passed into the objects created from the factory functions defined in the Praxyk base class. Instead, you must call Praxyk.user().factory() to get the factory data.
- The spin function that is used to watch the state of a transaction sometimes does not catch the updated state of the transaction. I think this is a bug with the way we are interacting with the python requests library.What this means is sometimes

the spin function will continue to wait even after a transaction being watched is finished.

CLIENT-Javascript library

- No known issues

CLIENT-Command Line Client Script

- The ‘begin transaction’ method produces an error instead of actually starting a transaction
- The ‘display result(s)’ methods aren’t displaying the results, this is due to the API response, and does not appear to be an issue with the python libraries