Objective

Assignment 5 provides a web service to interact with LOST. Web services often appear in service oriented architectures to allow different enterprise systems to interact safely with one another. For LOST, a REST-like service layer will be provided to expose some capabilities to OSNAP's HR and Acquisitions business units.

Step 1: Web Service Description

The web service is described in the [LOST specification document](). The level of detail in the specification may be too shallow, please identify where gaps in the specification are early so that there is time to ask for and receive clarification.

Step 2: Implement the Web Service

The web service should be implemented in your LOST codebase. If database records are needed to test, update your preflight script to inject those records into your database. If the database schema needs to be extended/changed, feel free to make those changes as well (depending on the extent of the change, the change may also require updates to your data migration scripts).

If the user goes to http://127.0.0.1:8080/rest an HTML page returning information regarding the available service calls. Much of the content for this web page can likely be generated by copying from the specification document.

For the web service implementation, each of the functions will occur at a different URL:

- http://127.0.0.1:8080/rest/lost_key
- http://127.0.0.1:8080/rest/activate_user
- http://127.0.0.1:8080/rest/suspend_user
- http://127.0.0.1:8080/rest/list_products
- http://127.0.0.1:8080/rest/add_products
- http://127.0.0.1:8080/rest/add_asset

Some utilities to interact with the web service and deal with encryption details (key generation and demonstrate encryption/signatures) should appear in the instructor's LOST repo by Feb 6. If you start the assignment before these are available, I would suggest working on a plaintext implementation architected so that the encryption can be added later.

Step 3: Test Implementation

Verify that the web service calls have the expected behavior. The test can be done by using a utility program to make the call and psql to see the effect in the database.

Step 4: Commit and push

You have probably been committing and pushing throughout development... Check that the final version of your code made it to GitHub using GitHub's web interface and that the work is in the master branch of your repository. While not required for this assignment, you try tagging the commit 'milestone5'.