Notes

* Developed using MAMP on iMac. Uses SQLite3 for database.
* Deployment:
  1. Clone the project: git clone into directory of your choice. We’ll refer to that as *projectdir*.
  2. Open MAMP and Stop MAMP servers
  3. Configure MAMP Apache Port to 80.
  4. Configure virtual host:
     + Edit /private/etc/hosts and add this line: 127.0.0.1 parksidelending
     + Edit /Applications/MAMM/conf/apache/httpd.conf and uncomment the line # Include /Applications/MAMP/conf/apache/extra/httpd-ssl.conf.
     + Edit /Applications/MAMP/conf/apache/extra/httpd-vhosts.conf. Add these lines:  
       <VirtualHost \*:80>

DocumentRoot "*projectdir*"

ServerName parksidelending

</VirtualHost>

* + - Edit /Applications/MAMP/conf/apache/extra/httpd-ssl.conf. Search for the lines with DocumentRoot and ServerName and set them the same above.
    - Install certificate files: the project contains a self-generated certificate. Two options:
      1. Copy files projectdir/server.crt and projectdir/server.key to /Applications/MAMP/conf/apache *or*
      2. Edit /Applications/MAMP/conf/apache/extra/httpd-ssl.conf and change the SSLCertificateFile line to SSLCertificateFile "*projectdir*/server.crt"
  1. Start MAMP servers
  2. Open browser and browse to https://parksidelending/www/index.html
* Sample calls using curl. The commands below worked for me on one machine. On another, I had to use the --cacert option to specify the certificate file. So you may need to add --cacert *projectdir*/server.crt option.
  1. Apply for a loan
     + curl -X POST --data "ssn=123-45-6789&propertyValue=300000&loanAmount=100000" <https://parksidelending/v1/loans>
     + outputs: {"result":"success","resultstring":null,"data":{"loanId":44,"propertyValue":"282500","loanAmount":"113000","loanStatus":1,"createdTime":"2016-10-29 02:38:25","lastUpdatedTime":"2016-10-29 02:38:25"}}
  2. Get loan status for loan 1
     + curl <https://parksidelending/v1/loans/1>
     + outputs: {"result":"success","resultstring":null,"data":{"loanId":1,"ssn":"123-456-7890","loanAmount":100000,"propertyValue":300000,"loanStatus":"2","createdTime":"2016-10-28 18:37:41","lastUpdatedTime":"2016-10-28 18:37:41"}}
* Project directory structure
  1. /www:
     + index.html: rudimentary UX for demo / testing. Dialog-based. Can apply for a loan and check status of a loan.
     + /css: main.css has styles
     + /js: Loans.js: wraps calls to the REST APIs using ajax.
  2. /v1: the server
     + .htaccess: Has rewrite rules for redirecting “loans” to LoansController.php
     + LoansController.php: front end for receiving REST requests for loans.
     + autoload.php: PHP class auto loader.
     + project.php: defines for project root directory, loan statuses, debug levels, and debug log location.
     + dbglog.php: methods for generating debug trace.
     + /Classes:
       1. Request.php: contains info about the REST API including the method and parameters. Created from front-end controller (such as LoansController.php) and passed to API class (such as Loans.php) where it gets used.
       2. Loans.php: Implementation of the APIs.
     + /Data:
       1. LoansDB.php: Creates / opens the database and creates the loans table if needed.
       2. LoanRow.php: contains queries for the loans table.
     + /logs: debug log