CIS 41B Final Project – National Park Service

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This project has total 7 files.

* 4 source code files: the private\_API\_key.py, the backend\_oneCursorPerThread.py, the GUI.py, and the Statistics.py.
* 1 database file: NPS.db
* 1 readme.doc file: the file you’re reading now.
* 1. Lesson Learned.doc file

How to run the project:

1. Create the private\_API\_key.py file as follows:

import os

os.environ["API\_Key"] = "Your API key here…”

1. Run backend\_oneCursorPerThread.py, and it generates NPS.db
2. Run GUI.py, a MainWindow shows and users have 5 choices.
3. Click “Menubutton” brings down a pull-down menu. Users can choose one state by clicking on it. Once you select a state, be sure to click the ‘OK’ button at the bottom of the MainWindow to proceed. Then, a DialogWindow will appear with all national parks for that state. Users can select up to one national park, and by clicking ‘OK’, detailed information about the park will be shown in a Display Window. Finally, a “Save” button will pop up, and the detailed info about that specific park will be saved within the file “National Parks.txt” under the user’s chosen directory.
4. Click “byDesignation” brings down a list of designations. Users can choose up to one designation. Clicking ‘OK’ will display all National Parks in the US with that designation.
5. Click “byCountry” will open a new window with a plot for the number of National Parks for every US state, listed in sorted descending order.
6. Click “byStats” will open a 5 \* 10 checkbuttons selection window, where the user can select 1-3 states. Once the user clicks ‘OK’ at the bottom of the selection window, multiple barplots will appear for the states.
7. Click “byLatitudeandLongitude” will open a scatterplot for the longitude and latitude for each National Park in the US, as well as display a least regression line.