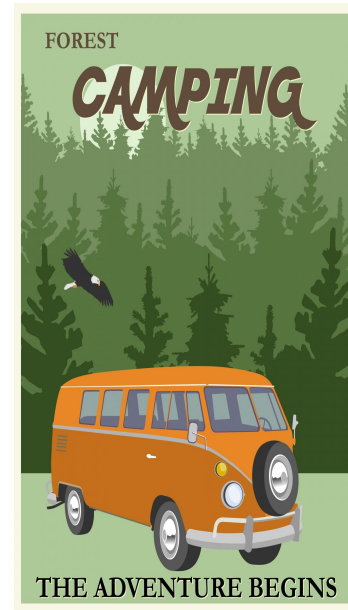
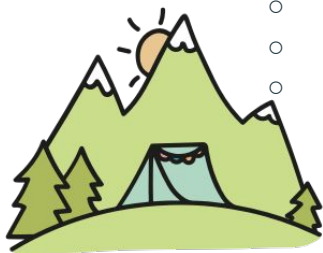


# Campsite Availability Scraper

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CS5001



- Scrapes campsite availability information off of Recreation.gov. The information will then be emailed out to a designated list of recipients with a link to the booking website. The hope is to more efficiently find available reservations at popular campsites during popular, holiday weekends (ie. Lower and Upper Pines at Yosemite over holiday weekends).
- Parameters:
  - Parks: List of Park IDs (from Recreation.gov) for which to find campsite information for
  - Holidays: List of date ranges to check if the campsites are available
  - Recipients: List of email addresses to email out the results to
  - Campsite Type (optional): Filter for specific campsite types (ie. Standard Nonelectric, RV, Cabins, etc)



# Technologies

- API Get requests (requests library)
  - Fake\_useragent module
- JSON
- Datetime and Timedelta
- Smtplib for emailing
  - Email.mime modules
- Reading/Writing files
- Error Handling

# Challenges

- Finding information on recreation.gov's campsite availability API
- Email smtp settings
  - Creating an attachment for the email
- Working with different versions of datetimes

# Future Vision

1. Run the code on a separate Raspberry Pi server to run on a daily cron job. The program would be edited so that an email is sent only when an available reservation is found.
2. Add in functionality to find all campsites within a given radius of a zip code.
3. Update the UI for the delivered email for better human readability
4. Create a V2 of the program that would also make the reservation if one is available. Preferably make this an optional parameter

# Citations

- Banool. “Banool/Recreation-Gov-Campsite-Checker: Scrapes the Recreation.gov Website to Check for Campsite Availabilities 🏕️🌲.” *GitHub*, <https://github.com/banool/recreation-gov-campsite-checker>.
- Real Python. “Sending Emails with Python.” *Real Python*, Real Python, 27 Feb. 2021, <https://realpython.com/python-send-email/>.