

Local Outdoor Recreation Database

Transforming Recreation.gov
Data for Local Use



L.O.R.D. Project Overview

Purpose of the Project

Our project aims to provide local access to accurate campsite data, enhancing outdoor recreation opportunities in Arizona, Oregon, and Utah. By narrowing the scope of Recreation.gov's data, this specialized dataset better meets our users' needs.



Overview of Recreation.gov

Recreation.gov is a comprehensive website that offers information on over 400,000 recreation sites across the United States. It includes data on campgrounds, national parks, forests, and other outdoor recreation areas, with over 420 million annual reservations.



Ethics Considerations and Issues

Integrity and intended usage was maintained throughout the project to ensure our project has a strong ethical foundation and use.



Purpose of the Project

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Overview of Recreation.gov

Recreation.gov is a comprehensive platform that offers information on recreational sites managed by various federal and state agencies. This is a massive amount of data with over 3,600 facilities, 1,030,000 campsites and over 4,250,000 annual reservations.



Ethics Considerations and Issues

Privacy and intended usage was explored, discussed and we our project has a strong ethical foundation and use.



Scope of Data



Target Regions: Arizona, Oregon, Utah

This project focuses on campsite data specifically from Arizona, Oregon, and Utah. These states are popular for outdoor activities, and providing location data allows users to find areas for outdoor camping locations. Also, the members of this group live in these states.

Importance of Local Data Access

Local access to the campsite database is crucial for facilitating outdoor recreation planning. It allows users to download data specific to their needs, meeting the specific requirements, improving the overall planning process for outdoor enthusiasts.





Target Regions: Arizona, Oregon, Utah

This project focuses on campsite data specifically from Arizona, Oregon, and Utah. These states are popular for outdoor activities, and providing localized data enhances user experience in finding suitable camping locations. Also, the members of this group live in these states.

Importance of Local Data Access

Local access to the campsite database is crucial for facilitating outdoor recreation planning. It allows users to quickly identify campsites that meet their specific requirements, improving the overall planning process for outdoor enthusiasts.



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Data Transformation Process (ETL)



Data Extraction from Recreation.gov API

The data extraction involved interfacing with the Recreation.gov API to retrieve campsite information. Key parameters such as location and amenities were specified to filter and retrieve only relevant datasets for Arizona, Oregon, and Utah. The API returned 50 records per request and these JSON responses were pulled together with a python script.



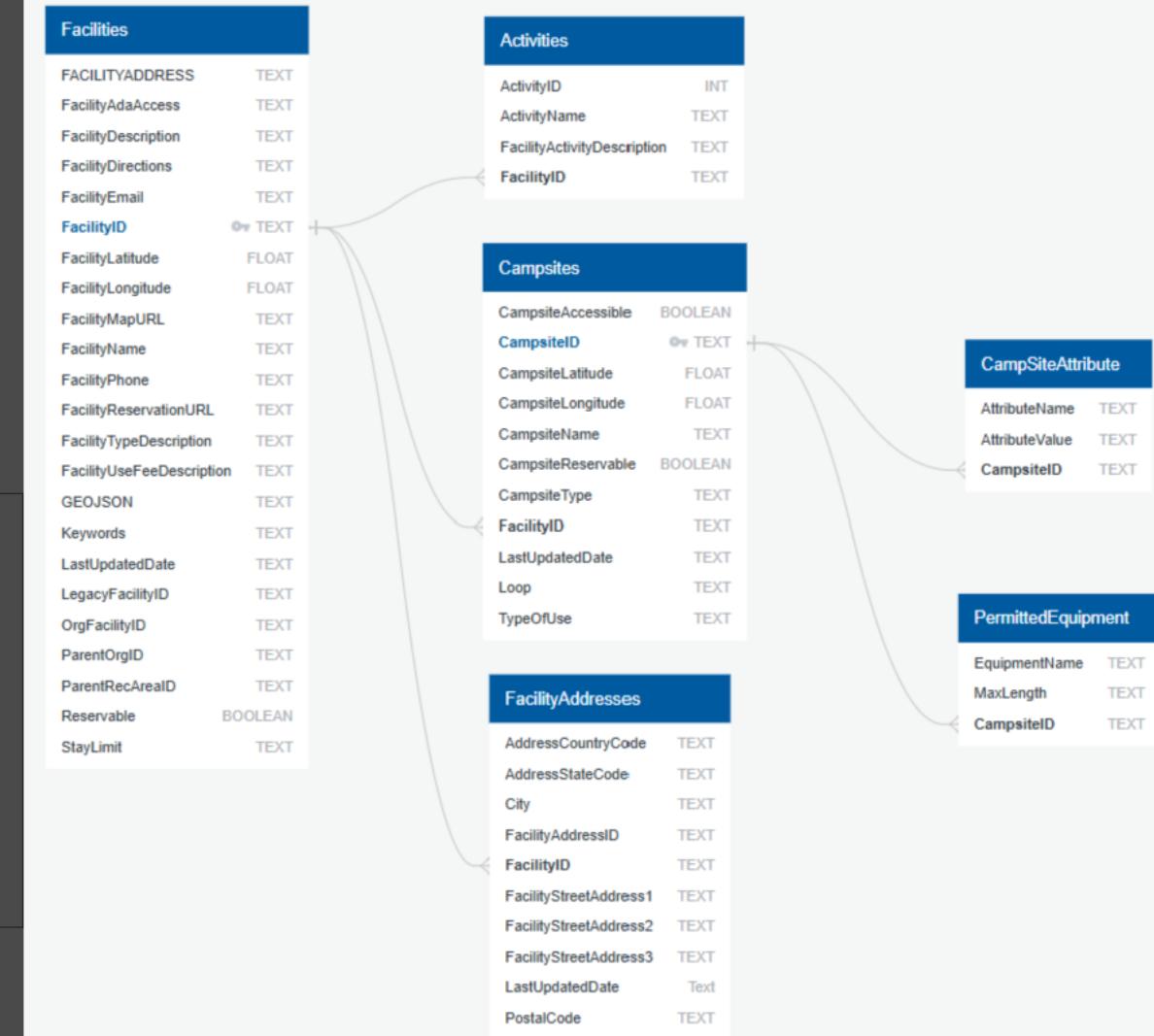
Data Transformation Techniques

Data retrieved from the API was transformed into CSV format for our SQL database. Techniques included data cleansing and structuring to ensure that information such as campsite locations and accessibility was available in our datasets.



Loading Data into Local SQL Server

The transformed data was then loaded into a locally hosted SQL server (PostgreSQL). This involved creating tables corresponding to the data structure established during the transformation phase, ensuring efficient storage (normalized) and straightforward retrieval by query.



Validation of Data Integrity

Post-loading, data integrity was validated through systematic checks and queries. This involved verifying that the loaded data accurately reflected the original API output and conducted consistency checks to ensure data reliability.

Campsites: 9132

Campgrounds: 1019



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L.O.R.D. Access



API Purpose and Functionality

The API was created using Finsight's API to facilitate remote access to our newly released NOL Database, utilizing various applications to provide users with comprehensive data. This enhancement user organizations and provides improved efficiency in retrieving required information efficiently.

Remote Access to the Dataset

Remote access to the dataset ensures that users can obtain relevant information regarding capacities, including availability and amenities. A visualization of the data on a web-based map provides high-level, remote data access.





Future Enhancements and Maintenance

Future enhancements may involve integrating additional datasets or improving existing ones. Regular maintenance is essential to ensure that the system remains functional and reliable as new needs and technological advancements.





API Purpose and Functionality

The API was created using FastAPI library to facilitate remote access to our locally hosted SQL database, enabling various applications to retrieve relevant campsite data easily. This enhances user engagement and promotes outdoor activities by providing necessary information efficiently.

Remote Access to the Dataset

Remote access to the dataset ensures that users can obtain real-time information regarding campsites, including availability and amenities. A visualization of the data on a web-based map provides high-level, remote data access.





Future Enhancements and Maintenance

Future enhancements may involve integrating additional datasets and optimizing API performance. Routine maintenance is essential to ensure that the API remains functional and efficient, adapting to user needs and technological advancements.

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