

API Data Collection & Storage Documentation

Overview

This document outlines the approach taken to collect, format, and store data retrieved from the OpenDota API. The script automates the extraction of data from various OpenDota endpoints, processes it into structured formats, and saves it in a Managed File Transfer (MFT) location.

Approach

1. Data Collection

- The script utilizes the OpenDota API to fetch data from multiple endpoints: proMatches, publicMatches, heroStats, teams, and leagues.
- Each API request is handled using the requests library in Python.
- Successful responses are logged, while failures are captured in an error log.

2. Data Formatting

- The retrieved data, typically in JSON format, is processed using the Pandas library.
- Each dataset is converted into a Pandas DataFrame to facilitate structured data handling.

3. Data Storage

- The processed data is saved as CSV files in the specified directory: C:\Users\kaur6\Downloads\BuildProject-ECommerce\Datasets
- The filenames are determined based on the API endpoints: proMatches.csv, publicMatches.csv, heroStats.csv, teams.csv, leagues.csv

Assumptions

- The OpenDota API free tier is accessible without requiring authentication with 2000 API calls per day with 60 calls per minute.
- API responses are formatted correctly in JSON and contain the expected data fields.
- The script has the necessary permissions to write files in the specified directory.
- No additional transformations beyond CSV conversion are required.

Logging & Error Handling

- The script logs execution details in opendota_api_log.log.
- Logging is configured to capture: Successful API requests, Failures or errors in API requests, Issues encountered while saving data to CSV.
- In case of an API failure, the script does not halt execution but moves to the next endpoint.

Execution

- The script is executed as a standalone Python program.
- Running python api_integration.py triggers the data collection and storage process.
- The execution starts and completes with logging statements to indicate progress.