# RESTful API Project

# Driver Application

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# INFO 762 Interoperability

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# API Driver App[¶](http://localhost:8888/notebooks/API%20Driver%20App%20v1.ipynb#API-Driver-App)

# Pulls 3 Public API data sources

# Pushes the data to the Custom API App

# Pulls the data from the Custom API App

import pandas as pd

import requests

import json

import csv

Fiscal Data API Data Retreival

#FiscalData

BASE = "http://127.0.0.1:5000/"

APP\_VERSION = "v1/"

def fetch\_data\_from\_api(api\_url):

try:

response = requests.get(api\_url)

response.raise\_for\_status() # Raise an exception for 4xx or 5xx status codes

data = response.json()

return data

except requests.exceptions.RequestException as e:

print(f"Error fetching data from API: {e}")

return None

api\_url = "https://api.fiscaldata.treasury.gov/services/api/fiscal\_service/v1/accounting/od/rates\_of\_exchange"

data = fetch\_data\_from\_api(api\_url)

if data:

df = pd.DataFrame(data['data'])

# Selecting only required columns

df = df[['country', 'currency', 'exchange\_rate']]

# print all the rows

# for index, row in df.iterrows():

# print(f"{row['country']} {row['currency']} {row['exchange\_rate']}")

# print specific row

print(f"{df.loc[0, 'country']} {df.loc[0, 'currency']} {df.loc[0, 'exchange\_rate']}")else:

print("Failed to fetch data from API.")

Gamer Power Data API Data Retreival

#GamerPower

BASE = "http://127.0.0.1:5000/"

APP\_VERSION = "v1/"

def fetch\_data\_from\_api(api\_url):

try:

response = requests.get(api\_url)

response.raise\_for\_status() # Raise an exception for 4xx or 5xx status codes

data = response.json()

return data

except requests.exceptions.RequestException as e:

print(f"Error fetching data from API: {e}")

return None

api\_url = "https://gamerpower.com/api/giveaways"

data = fetch\_data\_from\_api(api\_url)

if data:

df = pd.DataFrame(data)

# Selecting only required columns

df = df[['title', 'worth']]

# print(df)

print(f"{df.loc[0, 'title']} {df.loc[0, 'worth']}") (df)

else:

print("Failed to fetch data from API.")

# Cheap Shark Data API Data Retreival

#CheapShark

BASE = "http://127.0.0.1:5000/"

APP\_VERSION = "v1/"

def fetch\_data\_from\_api(api\_url):

try:

response = requests.get(api\_url)

response.raise\_for\_status() # Raise an exception for 4xx or 5xx status codes

data = response.json()

return data

except requests.exceptions.RequestException as e:

print(f"Error fetching data from API: {e}")

return None

api\_url = "https://www.cheapshark.com/api/1.0/deals?storeID=1&upperPrice=15"

data = fetch\_data\_from\_api(api\_url)

if data:

df = pd.DataFrame(data)

# Selecting only required columns

df = df[['gameID', 'salePrice']]

# print(df)

print(f"{df.loc[0, 'gameID']} {df.loc[0, 'salePrice']}")

else:

print("Failed to fetch data from API.")

# Custom API Put/Update

#Confirming that all values are present

print(country, currency, exchange\_rate, title, worth, gameID, salePrice)

#Confirm Update with Customer API GET

BASE = " http://127.0.0.1:5000/"

APP\_VERSION = "v1/"

data = [{'country': country, 'currency': currency, 'exchange\_rate': exchange\_rate, 'title': title, 'worth': worth, 'gameID': gameID, 'salePrice': salePrice}]

for i in range(len(data)):

response = requests.patch(BASE + APP\_VERSION + "data/" + str(i), data[i])

print(response.json())

input()

response = requests.patch(BASE + APP\_VERSION + "data/2")

print(response.json())

#Confirm Update with Customer API GET

import requests

BASE = " http://127.0.0.1:5000/"

APP\_VERSION = "v1/"

response = requests.get(BASE + APP\_VERSION + "data/0")

print(response.json())