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Assignment 4.2 Code & Screenshots

Advanced Python CSD-325

import csv

from datetime import datetime

from matplotlib import pyplot as plt

#import sys to allow for 'break' when user selects to exit

import sys

filename = 'sitka\_weather\_2018\_simple.csv'

with open(filename) as f:

reader = csv.reader(f)

header\_row = next(reader)

# Get dates and high/low temperatures from this file. \*ADDED LOWS TO CODE\*

dates, highs, lows = [], [], []

for row in reader:

try:

current\_date = datetime.strptime(row[2], '%Y-%m-%d')

dates.append(current\_date)

high = int(row[5])

low = int(row[6])

highs.append(high)

lows.append(low)

except (ValueError, IndexError) as e:

print(f'Error Processing row {row}: {e}')

continue

#Display menu and get users choice

while True:

print('\n Please enter the corresponding number for which data you would like to view or to exit.'

'(ex. to view "Lows" input "2")')

choice = input('1: Highs \n2: Lows \n3: Exit \nPlease enter your selection: ')

if choice == '1':

# Plot the high temperatures.

fig, ax = plt.subplots()

ax.plot(dates, highs, c='red')

# Format plot.

plt.title("Daily high temperatures - 2018", fontsize=24)

plt.xlabel('', fontsize=16)

fig.autofmt\_xdate()

plt.ylabel("Temperature (F)", fontsize=16)

plt.tick\_params(axis='both', which='major', labelsize=16)

plt.show()

elif choice == '2':

# Plot the low temperatures

fig, ax = plt.subplots()

ax.plot(dates, lows, c='blue')

# Format plot

plt.title('Daily low temperatures - 2018', fontsize=24)

plt.xlabel('', fontsize=16)

fig.autofmt\_xdate()

plt.ylabel('Temperature (F)', fontsize=16)

plt.tick\_params(axis='both', which='major', labelsize=16)

plt.show()

#Add the option for user to exit

elif choice == '3':

print('Exiting the program.')

break

#Add error message if user does not select 1,2, or 3.

else:

print('Error: Invalid choice, Please enter "1" for highs, "2" for lows, or "3" to exit')

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