10.3 - COVID-19 Cases

The indiana_covid_19_data_fall_2021.txt file contains data about the spread of Coronavirus disease 2019 in the state of Indiana. The file has four columns of data separated by spaces. The first column is the date, the next three columns are the number of new tests performed, the number of new positive results, and the number of new deaths due to the virus on that date (source: Indiana State Department of Health retrieved 2021-11-01).

Write a Python program that reads the contents of the file and calculates the total number of positive results for each day by summing all of the positive results prior to and including that day. Then, using matplotlib, plot the total number of positive cases for each day as a bar chart. Include a title, and labels along the X and Y axes, as well as the tick marks.

A sample of the resulting bar chart is shown below. Your chart should exactly match the sample, including tick labels, axis labels, and title. Save the resulting figure as a PDF named covid_19_cases_login.pdf and save your Python program as covid_19_cases_login.py, where login is your Purdue login. Then submit both of them. You do not need to submit a screenshot for this exercise.

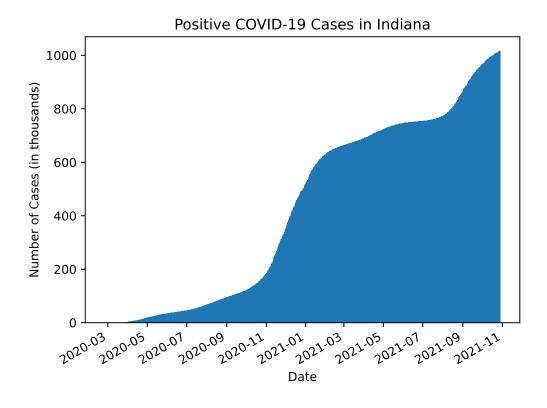


Figure 1: Sample COVID-19 cases bar chart for Exercise 10.3.

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