

DSI: Unix Shell, Git and GitHub

Assignment 1: Unix and Data

Requirements:

1. Write a script that takes the parking_data.csv file as a positional parameter from the terminal as the input (this is so that the script can be run from any computer, so long as the csv file is available, assuming it is on the Desktop).
 - You can find the Toronto parking ticket data at Toronto's Open Data Portal:
<https://open.toronto.ca/dataset/parking-tickets/>
2. Build a function or multiple functions into the script that:
 - a) Prints all types of parking infractions (*infraction_description*)
 - b) Prints the mean, min and max *set_fine_amount* - these calculations can either be in the same function or multiple functions
 - c) Saves one type of parking infraction of your choosing to a separate csv file (this file should contain all observations of the chosen *infraction_description*, *set_fine_amount*, and *location2* with the same headings as original csv)
3. Things to remember:
 - The script should be able to navigate to the directory housing the csv file
 - Functions should include loops (either if/else, while, until, for) to make the process iterative
 - You **must use outside sources** (Google and StackOverflow) to build these calculations
 - Remember to cite any code that was used

Lesson Outcomes:

After completing this assignment, learners will be able to:

- Use commands, positional parameters, functions, and loops from submodules on a dataset
- Navigate directories within scripts
- Search using Google and StackOverflow for commands not directly learned within the lesson and cite their sources

Rubric:

| Component | Yes | No |
|---|-----|----|
| 1. Script is functioning and does as described in the assignment requirements | | |
| 2. Script uses at least one type of loop to fulfill requirements | | |
| 3. Script is free from bugs and has been appropriately commented | | |
| 4. All outside sources have been properly cited | | |