Finding the best city in Australia! (Bash Shell Script)

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Our final quest in this project is to find the best city in Australia that had the least number of crimes over that pre-2013 unknown period. This is a complex example, let's first watch the following video lecture to understand it's goals first!

Video: Find the best Australian city (use Bash scripting)

Essentially, we would need to find summation of the city columns and then compare the sums to find the city with the lowest total sum. Our expected output is shown below:

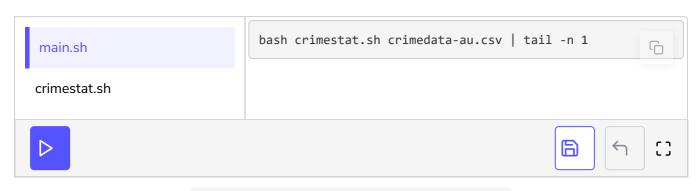
```
Mational crises = 582
Adelaide crises = 139
Brisbane crises = 228
Cairs crises = 31
Darwin crises = 27
Hobart crises = 25
Sydney crises = 472
Total crises = 2884
The best city was: Hobart, with total number of crises = 21
hellohigdataghash:sfpdatas
```

Which one's the best city down under in terms of crime? Hobart.

To develop the code, we will reuse the average function (sum part) developed above and call it inside a loop. Some important points:

- The first line in the script (crimestat.sh) indicates the system (bash) which program to use to run the file. If you get something like ./crimestat.sh: Command not found. Probably the first line '#!/bin/bash' is wrong, issue whereis bash to see how sould you write this line. Also, do not forget to issue chmod +x crimestat.sh to enable execution right on the script for you!
- The function totalcimes() is no different from the avgcrimes() explained above, just that in the awk part we do not divide total crimes by the number of rows.
- We read the first line of the input file (stored in the variable \$1) as an array and store in the fields variable.
- In the for-loop part, we iterate over the field titles (field: city names), except the first first field, which is not a city!
- Inside the for-loop, we find the city that had the lowest number total crimes, comparing with the previously stored maximum number of crimes, using a simple logic of find the lowest number from a set of given numbers.

Now, see the full code below:



Don't forget to check the 'crimestat.sh' code

Do you want to know more?

