CIS 218 LAB #6 Awk Advanced UNIX

Instructions: AFTER debugging all the below problems,

- Create a Directory Lab6
- Unless requested for a specific script name in the instructions, create scripts called “1”, “2” etc for each step below
- Within the Lab4 directory, run the command “script 1.out” and run script 1, then “exit” when complete. Repeat for each step.
- E-Mail to the instructor when complete. I can access your HOME directory and view the results.

This assignment is due in 2 weeks.

1) Contribute.txt

Name:Phone:Month1:Month2:Month3
Mike Harrington:(510) 548-1278:250:100:175
Christian Dobbins:(408) 538-2358:155:90:201
Susan Dalsass:(206) 654-6279:250:60:50
Archie McNichol:(206) 548-1348:250:100:175
Jody Savage:(206) 548-1278:15:188:150
Guy Quigley:(916) 343-6410:250:100:175
Dan Savage:(406) 298-7744:450:300:275
Nancy McNeil:(206) 548-1278:250:80:75
John Goldenrod:(916) 348-4278:250:100:175
Chet Main:(510) 548-5258:50:95:135
Tom Savage:(408) 926-3456:250:168:200
Elizabeth Stachelin:(916) 440-1763:175:75:300

using awk

a. print the names for all people whose last contribution ended in the digit 5
b. Print the names of those who contributed between $75 and $200 in the first month.

This assignment is due in 2 weeks.

1) Contribute.txt

Name:Phone:Month1:Month2:Month3
Mike Harrington:(510) 548-1278:250:100:175
Christian Dobbins:(408) 538-2358:155:90:201
Susan Dalsass:(206) 654-6279:250:60:50
Archie McNichol:(206) 548-1348:250:100:175
Jody Savage:(206) 548-1278:15:188:150
Guy Quigley:(916) 343-6410:250:100:175
Dan Savage:(406) 298-7744:450:300:275
Nancy McNeil:(206) 548-1278:250:80:75
John Goldenrod:(916) 348-4278:250:100:175
Chet Main:(510) 548-5258:50:95:135
Tom Savage:(408) 926-3456:250:168:200
Elizabeth Stachelin:(916) 440-1763:175:75:300

using awk

a. print the names for all people whose last contribution ended in the digit 5
b. Print the names of those who contributed between $75 and $200 in the first month.
c. Print the names and phone numbers of those with an average monthly contribution greater than $200.
d. Add $10 to Chet’s second contribution and print the changed record.
e. Change Nancy McNeil’s name to Louise McInnes and print the changed record.
2) Test_scores.txt

<table>
<thead>
<tr>
<th>Name</th>
<th>Team</th>
<th>First Test</th>
<th>Second Test</th>
<th>Third Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tom</td>
<td>Red</td>
<td>5</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>Joe</td>
<td>Green</td>
<td>3</td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td>Maria</td>
<td>Blue</td>
<td>6</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Fred</td>
<td>Blue</td>
<td>2</td>
<td>15</td>
<td>23</td>
</tr>
<tr>
<td>Carlos</td>
<td>Red</td>
<td>-1</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Phuong</td>
<td>Green</td>
<td>7</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>Enrique</td>
<td>Green</td>
<td>3</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Nancy</td>
<td>Red</td>
<td>9</td>
<td>12</td>
<td>24</td>
</tr>
</tbody>
</table>

Using awk
Print the first name and average test score of each student.

<table>
<thead>
<tr>
<th>Name</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tom</td>
<td>14.67</td>
</tr>
<tr>
<td>Joe</td>
<td>13.00</td>
</tr>
<tr>
<td>Maria</td>
<td>15.00</td>
</tr>
<tr>
<td>Fred</td>
<td>13.33</td>
</tr>
<tr>
<td>Carlos</td>
<td>19.50</td>
</tr>
<tr>
<td>Phuong</td>
<td>15.67</td>
</tr>
<tr>
<td>Enrique</td>
<td>13.00</td>
</tr>
<tr>
<td>Nancy</td>
<td>15.00</td>
</tr>
</tbody>
</table>

3) Print the last name and UID of all CIS students on csc.oakton.edu (from /etc/passwd)
   - using awk, in a formatted report
   - using any other command combination you can find

4) Print the number of processes on csc.oakton.edu owned by root.
   - using awk
   - using any other command combination you can find
5) employee.txt

<table>
<thead>
<tr>
<th>emp#</th>
<th>Last</th>
<th>Position</th>
<th>Department</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Thomas</td>
<td>Manager</td>
<td>Sales</td>
<td>5000</td>
</tr>
<tr>
<td>200</td>
<td>Jason</td>
<td>Developer</td>
<td>Technology</td>
<td>5500</td>
</tr>
<tr>
<td>300</td>
<td>Sanjay</td>
<td>Sysadmin</td>
<td>Technology</td>
<td>7000</td>
</tr>
<tr>
<td>400</td>
<td>Nisha</td>
<td>Manager</td>
<td>Marketing</td>
<td>9500</td>
</tr>
<tr>
<td>500</td>
<td>Randy</td>
<td>DBA</td>
<td>Technology</td>
<td>6000</td>
</tr>
</tbody>
</table>

Using awk

Print:

a) the name of the person with the largest salary, the lowest salary
b) The average salary and # of employees
c) The records as a report in a nicely formatted report (your discretion)

Extra Credit (50 points)

Using awkp perform the following:

- Clear the screen
- Declare an array to hold 10 numbers
- Prompt the user for a number between 1 and 100 (or ENTER to terminate), display an error message if the number is not in this range and reprompt for a number
- Store the number in the array
- Loop repeating steps 3 and 4, include logic so the loop is repeated a maximum of 10 times, terminate the loop if the user just hits return
- Display the following calculations (with labels describing the output):
  - The sum of all the numbers
  - The average of all the numbers
  - The number of numbers entered
  - The largest number entered
  - The smallest number entered