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DISCOVERY EXERCISES (1-20)

1. How can you create a file called history by using a redirection operator?

> history

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2. Wait one minute or more and then change the time stamp on the history file you just created.

touch history

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3. Back up the history file to the file history.bak.

cp history history.bak

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4. Sort the corp_phones1 file by the last four digits of the phone number.

sort -t: -k 3 corp_phones1

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5. Create and use a command that displays only the last names and telephone numbers (omitting the area code) of people in the corp_phones2 file. Place a space between the telephone number and the last name.

awk -F: '{printf "%-28s %s\t %s\n", $2, $3, $4}' corp_phones2

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6. Assume you have a subdirectory named datafiles directly under your current working directory, and you have two files named data1 and data2 in your current directory. What command can you use to copy the data1 and data2 files from your current working directory to the datafiles directory?

cp data1 data2 datafiles

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7. Assume you have four files: accounts1, accounts2, accounts3, and accounts4. Write the paste command that combines these files and separates the fields on each line with a "/" character, displaying the results to the screen.

paste -d/ accounts1 accounts2 accounts3 accounts4 > combind; cat combind

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8. How would you perform the action in Exercise 7, but write the results to the file total_accounts?
paste -d/ accounts1 accounts2 accounts3 accounts4 > total_accounts; cat total_accounts

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9. Assume you have 10 subdirectories and you want to locate all files that end with the extension ".c". What command can you use to search all 10 of your subdirectories for this file?

ls *.c

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10. After you create a script file, what are the next steps to run it?

chmod ugo+x scriptf

./scriptf

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11. Change the awk script that you created earlier so that the column headings are “Vendor” and “Product” and the name of the report is “Vendor Data.”

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BEGIN {
{ FS = ":"}
{ print "\t\tVendor data \n" }
{ "date" | getline d }
{ printf "\t %s\n",d }
{ print "Vendor\t\t\t\tProduct\n" }
{ print"================================================\n" }
}
 { printf "%-28s\t%s\n",$1, $2 }
```

awk -f awrp vreport > v_report;cat v_report Vendor Data

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12. Create the subdirectory mytest. Copy a file into your new subdirectory. Delete the mytest subdirectory and its contents using one command.

ls test

mkdir mytest

cp file mytest

rm -r mytest

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13. Use the cut command to create a file called descriptions that contains only the product descriptions from the products file you created earlier in this chapter.

cut -f2 -d: products

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14. You are worried about copying over an existing or newer file in another directory when you use the move command. What are your options in this situation?

mv -n

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15. What command enables you to find all empty files in your source directory?

find -maxdepth 1 -type f -empty

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16. How can you find all files in your home directory that were modified in the last seven days?

find /home -type f -mtime -7

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17. How can you put the contents of each line of the product1 file side by side with the contents of the product2 file, but with only a dash between them instead of a tab?

paste -d'-' product1 product2 > showp; cat showp

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18. Make a copy of the corp_phones2 file and call it testcorp. Next, create a single-line command that enables you to cut characters in the fifth column of the testcorp file and paste them back to the first column in the same file. (Hint: Two good solutions exist, one in which you use a semicolon and one with more finesse in which you use a pipe character.)

cp corp_phones2 testcorp

cut -c26-35 testcorp > holder; paste holder testcorp > holder1; cat holder1 > testcorp

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19. How can you use a command you have learned in this chapter to list the names of all users on your system? (Hint: Find out the name of the file in which user informa- tion is stored.)

cut -d'.' -f1 /etc/password

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20. Type who and press Enter to view a list of logged-in users, along with other information. Now use the who command (which you learned about in Chapter 1) with a command you learned in this chapter to view who is logged in, but to suppress all other information that normally accompanies the who command.

who | cut -f1 -d' ' /etc/password
