

SED Lab

Instructions:

Sed is a text editing utility that essentially means “Stream Editor”. In this lab, you will be able to learn how to edit, modify, replace, and print a sed file on your server. The lab exercise should be able to work perfectly on any Linux distro. You must keep in mind the file name location on your server. This lab primarily explains what you need to know about Sed and how it could enhance your ability to learn the program. You should not be able to run into any errors once you carefully read the lab report. The sed scripts shown in the lab report are created using the vi text editor in Linux. Please see the screenshots labeled with the sed command above the results.

Lab Report (Commands & Descriptions)

Below are the commands and descriptions on each expression that will show you how the phrases are used and what it is used for in each term. For example, you will see “p,” which stands for print, -f, which will search and run script files, and “s” for a substitute to replace a text. Other examples will be displayed in the lab report.

1. Change the name Jo to Josephine.

The command: `sed 's/Jo/Josephine/g' SebLab` changed the name Jo to Josephine. The “s” phrase indicates a substitute, and “g” for global, which essentially change the replacement word, fellow by the sed filename “SedLab”.

```
jwilliams@jwilliams-ubuntu-server: ~$ sed 's/Jo/Josephine/g' SedLab
Huckleberry Finn:238-923-7366:95 Latham Lane, Easton, PA 83755:11/12/56:20300
Betty Boop:245-836-8357:635 Cutesy Lane, Hollywood, CA 91464:6/23/23:14500
Dorian Gray:385-375-8395:3567 Populus Place, Caldwell, NJ 23875:6/18/68:23400
Holly Golightly:397-857-2735:74 Pine Street, Dearborn, MI 23874:3/28/45:245700
Ebenezer Scrooge:548-834-2348:583 Laurel Ave., Kingsville, TX 83745:10/1/35:58900
Hester Prynne:408-253-3122:123 Park St., San Josephinese, CA 04086:7/25/53:85100
Westley Pirate:284-758-2857:23 Edgecliff Place, Lincoln, NB 92743:7/25/53:85100
Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200
Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200
Lizzie Bennett:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900
Nancy Drew:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900
Josephine March:327-832-5728:3465 Mirlo Street, Peabody, MA 34756:10/2/65:35200
Victor Frankenstein:835-365-1284:454 Easy Street, Decatur, IL 75732:2/28/53:123500
Ephram Hardy:293-259-5395:235 Carlton Lane, Josephineliel, IL 73858:8/12/20:56700
Meg Murry:834-938-8376:23445 Aster Ave., Allentown, NJ 83745:12/1/38:45000
Lucy Pevensie:385-573-8326:832 Ponce Drive, Gzary, IN 83756:12/1/46:268500
Hemione Granger:408-456-1234:4 Harvard Square, Boston, MA 02133:4/22/62:52600
Mary Poppins:846-836-2837:6937 Ware Road, Milton, PA 93756:9/21/46:43500
Sir Lancelot:837-835-8257:474 Camelot Boulevard, Bath, WY 28356:5/13/69:24500
Minerva McGonagall:408-233-8971:45 Rose Terrace, San Francisco, CA 92303:2/3/36:25000
Zippy Pinhead:834-823-8319:2356 Bizarro Ave., Farmount, IL 84357:1/1/67:89500
Dorothy Gale:923-835-8745:23 Wimp Lane, Kensington, DL 38758:8/31/69:126000
Popeye Sailor:156-454-3322:945 Bluto Street, NotHere, USA 29358:3/19/35:22350
Luna Lovegood:385-898-8357:38 Fife Way, Abilene, TX 39673:1/5/58:95600
Daenerys Targaryen:408-724-0140:1222 Oxbow Court, Sunnyvale, CA 94087:5/19/66:34200
Molly Weasley:387-827-1095:13 Uno Lane, Ashville, NC 23556:7/1/29:57000
Arya Stark:438-910-7449:8235 Maple Street, Wilmington, VM 29085:9/23/63:68900
jwilliams@jwilliams-ubuntu-server:~$
```

2. . Delete the last 5 lines.

The expression: `sed '22,27d' SedLab` deleted the last 5 lines. The line 27 was the last line in the `sedlab` file, so we start at 22 to delete the last 5 lines.

```
jwilliams@jwilliams-ubuntuserver:~$ sed '22,27d' SedLab
Huckleberry Finn:238-923-7366:95 Latham Lane, Easton, PA 83755:11/12/56:20300

Betty Boop:245-836-8357:635 Cutesy Lane, Hollywood, CA 91464:6/23/23:14500

Dorian Gray:385-375-8395:3567 Populus Place, Caldwell, NJ 23875:6/18/68:23400

Holly Golightly:397-857-2735:74 Pine Street, Dearborn, MI 23874:3/28/45:245700

Ebenezer Scrooge:548-834-2348:583 Laurel Ave., Kingsville, TX 83745:10/1/35:58900

Hester Prynne:408-253-3122:123 Park St., San Jose, CA 04086:7/25/53:85100

Westley Pirate:284-758-2857:23 Edgecliff Place, Lincoln , NB 92743:7/25/53:85100

Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200

Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200

Lizzie Bennett:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900

Nancy Drew:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900

Meg Murry:834-938-8376:23445 Aster Ave., Allentown, NJ 83745:12/1/38:45000

Lucy Pevensie:385-573-8326:832 Ponce Drive, Gzary, IN 83756:12/1/46:268500

Hemione Granger:408-456-1234:4 Harvard Square, Boston, MA 02133:4/22/62:52600

Mary Poppins:846-836-2837:6937 Ware Road, Milton, PA 93756:9/21/46:43500

Sir Lancelot:837-835-8257:474 Camelot Boulevard, Bath, WY 28356:5/13/69:24500

Minerva McGonagall:408-233-8971:45 Rose Terrace, San Francisco, CA 92303:2/3/36:25000

Zippy Pinhead:834-823-8319:2356 Bizarro Ave., Farmount, IL 84357:1/1/67:89500

Dorothy Gale:923-835-8745:23 Wimp Lane, Kensington, DL 38758:8/31/69:126000

Popeye Sailor:156-454-3322:945 Bluto Street, NotHere, USA 29358:3/19/35:22350

Luna Lovegood:385-898-8357:38 Fife Way, Abilene, TX 39673:1/5/58:95600

Daenerys Targaryen:408-724-0140:1222 Oxbow Court, Sunnyvale, CA 94087:5/19/66:34200

Molly Weasley:387-827-1095:13 Uno Lane, Ashville, NC 23556:7/1/29:57000

Arya Stark:438-910-7449:8235 Maple Street, Wilmington, VM 29085:9/23/63:68900
jwilliams@jwilliams-ubuntuserver:~$
```

3. Print lines 3-15.

The statement: `sed -n '3,15p' SedLab` will print lines 3-15 from the SedLab file. The lines we printing start from line 3 and onto 15. The “-n” is uniquely focus on printing specific lines as indicated.

```
jwilliams@jwilliams-ubuntuserver:~$ sed -n '3,15p' SedLab
Betty Boop:245-836-8357:635 Cutesy Lane, Hollywood, CA 91464:6/23/23:14500

Dorian Gray:385-375-8395:3567 Populus Place, Caldwell, NJ 23875:6/18/68:23400

Holly Golightly:397-857-2735:74 Pine Street, Dearborn, MI 23874:3/28/45:245700

Ebenezer Scrooge:548-834-2348:583 Laurel Ave., Kingsville, TX 83745:10/1/35:58900

Hester Prynne:408-253-3122:123 Park St., San Jose, CA 04086:7/25/53:85100

Westley Pirate:284-758-2857:23 Edgecliff Place, Lincoln , NB 92743:7/25/53:85100

Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200
jwilliams@jwilliams-ubuntuserver:~$
```

4. Delete lines for people who live in California.

The command: `sed '/CA/d' SedLab` displayed the result of deleted lines for people who live in California. CA is the word we want to delete, while “d” is specified for deleted lines.

```
jwilliams@jwilliams-ubuntuserver:~$ sed '/CA/d' SedLab
Huckleberry Finn:238-923-7366:95 Latham Lane, Easton, PA 83755:11/12/56:20300

Dorian Gray:385-375-8395:3567 Populus Place, Caldwell, NJ 23875:6/18/68:23400

Holly Golightly:397-857-2735:74 Pine Street, Dearborn, MI 23874:3/28/45:245700

Ebenezer Scrooge:548-834-2348:583 Laurel Ave., Kingsville, TX 83745:10/1/35:58900

Westley Pirate:284-758-2857:23 Edgecliff Place, Lincoln , NB 92743:7/25/53:85100
Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200
Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200

Lizzie Bennett:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900

Nancy Drew:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900

Jo March:327-832-5728:3465 Mirlo Street, Peabody, MA 34756:10/2/65:35200

Victor Frankenstein:835-365-1284:454 Easy Street, Decatur, IL 75732:2/28/53:123500

Ephram Hardy:293-259-5395:235 CarltonLane, Joliet, IL 73858:8/12/20:56700

Meg Murry:834-938-8376:23445 Aster Ave., Allentown, NJ 83745:12/1/38:45000

Lucy Pevensie:385-573-8326:832 Ponce Drive, Gzary, IN 83756:12/1/46:268500

Hemione Granger:408-456-1234:4 Harvard Square, Boston, MA 02133:4/22/62:52600

Mary Poppins:846-836-2837:6937 Ware Road, Milton, PA 93756:9/21/46:43500

Sir Lancelot:837-835-8257:474 Camelot Boulevard, Bath, WY 28356:5/13/69:24500

Zippy Pinhead:834-823-8319:2356 Bizarro Ave., Farmount, IL 84357:1/1/67:89500

Dorothy Gale:923-835-8745:23 Wimp Lane, Kensington, DL 38758:8/31/69:126000

Popeye Sailor:156-454-3322:945 Bluto Street, NotHere, USA 29358:3/19/35:22350

Luna Lovegood:385-898-8357:38 Fife Way, Abilene, TX 39673:1/5/58:95600

Molly Weasley:387-827-1095:13 Uno Lane, Ashville, NC 23556:7/1/29:57000

Arya Stark:438-910-7449:8235 Maple Street, Wilmington, VM 29085:9/23/63:68900
jwilliams@jwilliams-ubuntuserver:~$
```

5. Print all lines where the birthdays are in the first week of the month. Be careful of the dates for birthdays, the format is MM/DD/YY

The sed command: `sed '/[0-9]\{2\}/0[0-7]\{1\}/[0-9]\{2\}/p' SedLab` will print all the lines where the birthdays are in the last week of the month. The phrases `'/[0-9]\{2\}/` will search to find the pairing month, and the `0[0-7]\{1\}/` will look for the first week of the month, which is 7 days. The `/[0-9]\{2\}/` will search for the year, and the “p” to print as specified.

 jwilliams@jwilliams-ubuntu: ~

```
jwilliams@jwilliams-ubuntu: ~$ sed '/[0-9]\{2\}/0[0-7]\{1\}/[0-9]\{2\}/p' SedLab
Huckleberry Finn:238-923-7366:95 Latham Lane, Easton, PA 83755:11/12/56:20300

Betty Boop:245-836-8357:635 Cutesy Lane, Hollywood, CA 91464:6/23/23:14500

Dorian Gray:385-375-8395:3567 Populus Place, Caldwell, NJ 23875:6/18/68:23400

Holly Golightly:397-857-2735:74 Pine Street, Dearborn, MI 23874:3/28/45:245700

Ebenezer Scrooge:548-834-2348:583 Laurel Ave., Kingsville, TX 83745:10/1/35:58900

Hester Prynne:408-253-3122:123 Park St., San Jose, CA 04086:7/25/53:85100

Westley Pirate:284-758-2857:23 Edgecliff Place, Lincoln , NB 92743:7/25/53:85100

Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200

Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200

Lizzie Bennett:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900

Nancy Drew:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900

Jo March:327-832-5728:3465 Mirlo Street, Peabody, MA 34756:10/2/65:35200

Victor Frankenstein:835-365-1284:454 Easy Street, Decatur, IL 75732:2/28/53:123500

Ephram Hardy:293-259-5395:235 CarltonLane, Joliet, IL 73858:8/12/20:56700

Meg Murry:834-938-8376:23445 Aster Ave., Allentown, NJ 83745:12/1/38:45000

Lucy Pevensie:385-573-8326:832 Ponce Drive, Gzary, IN 83756:12/1/46:268500

Hemione Granger:408-456-1234:4 Harvard Square, Boston, MA 02133:4/22/62:52600

Mary Poppins:846-836-2837:6937 Ware Road, Milton, PA 93756:9/21/46:43500

Sir Lancelot:837-835-8257:474 Camelot Boulevard, Bath, WY 28356:5/13/69:24500

Minerva McGonagall:408-233-8971:45 Rose Terrace, San Francisco, CA 92303:2/3/36:25000

Zippy Pinhead:834-823-8319:2356 Bizarro Ave., Farmount, IL 84357:1/1/67:89500

Dorothy Gale:923-835-8745:23 Wimp Lane, Kensington, DL 38758:8/31/69:126000

Popeye Sailor:156-454-3322:945 Bluto Street, NotHere, USA 29358:3/19/35:22350

Luna Lovegood:385-898-8357:38 Fife Way, Abilene, TX 39673:1/5/58:95600

Daenerys Targaryen:408-724-0140:1222 Oxbow Court, Sunnyvale, CA 94087:5/19/66:34200

Molly Weasley:387-827-1095:13 Uno Lane, Ashville, NC 23556:7/1/29:57000

Arya Stark:438-910-7449:8235 Maple Street, Wilmington, VM 29085:9/23/63:68900
jwilliams@jwilliams-ubuntu: ~$
```


6. Append three asterisks (*) to the end of lines starting with Sir.

The sed expression: `sed '/^Sir/a***' SedLab` will search and append the three (***) at the end of the word Sir. The sed phrase “^” will search for the initial aspect of the word Sir, and the “a” is means append.

 jwilliams@jwilliams-ubuntu-server: ~

```
jwilliams@jwilliams-ubuntu-server:~$ sed '/^Sir/a\***' SedLab
Huckleberry Finn:238-923-7366:95 Latham Lane, Easton, PA 83755:11/12/56:20300

Betty Boop:245-836-8357:635 Cutesy Lane, Hollywood, CA 91464:6/23/23:14500

Dorian Gray:385-375-8395:3567 Populus Place, Caldwell, NJ 23875:6/18/68:23400

Holly Golightly:397-857-2735:74 Pine Street, Dearborn, MI 23874:3/28/45:245700

Ebenezer Scrooge:548-834-2348:583 Laurel Ave., Kingsville, TX 83745:10/1/35:58900

Hester Prynne:408-253-3122:123 Park St., San Jose, CA 04086:7/25/53:85100

Westley Pirate:284-758-2857:23 Edgecliff Place, Lincoln , NB 92743:7/25/53:85100

Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200

Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200

Lizzie Bennett:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900

Nancy Drew:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900

Jo March:327-832-5728:3465 Mirlo Street, Peabody, MA 34756:10/2/65:35200

Victor Frankenstein:835-365-1284:454 Easy Street, Decatur, IL 75732:2/28/53:123500

Ephram Hardy:293-259-5395:235 CarltonLane, Joliet, IL 73858:8/12/20:56700

Meg Murry:834-938-8376:23445 Aster Ave., Allentown, NJ 83745:12/1/38:45000

Lucy Pevensie:385-573-8326:832 Ponce Drive, Gzary, IN 83756:12/1/46:268500

Hemione Granger:408-456-1234:4 Harvard Square, Boston, MA 02133:4/22/62:52600

Mary Poppins:846-836-2837:6937 Ware Road, Milton, PA 93756:9/21/46:43500

Sir Lancelot:837-835-8257:474 Camelot Boulevard, Bath, WY 28356:5/13/69:24500
***

Minerva McGonagall:408-233-8971:45 Rose Terrace, San Francisco, CA 92303:2/3/36:25000

Zippy Pinhead:834-823-8319:2356 Bizarro Ave., Farmount, IL 84357:1/1/67:89500

Dorothy Gale:923-835-8745:23 Wimp Lane, Kensington, DL 38758:8/31/69:126000

Popeye Sailor:156-454-3322:945 Bluto Street, NotHere, USA 29358:3/19/35:22350

Luna Lovegood:385-898-8357:38 Fife Way, Abilene, TX 39673:1/5/58:95600

Daenerys Targaryen:408-724-0140:1222 Oxbow Court, Sunnyvale, CA 94087:5/19/66:34200

Molly Weasley:387-827-1095:13 Uno Lane, Ashville, NC 23556:7/1/29:57000

Arya Stark:438-910-7449:8235 Maple Street, Wilmington, VM 29085:9/23/63:68900
```

7. Replace the line containing “Westley Pirate” with the phrase “As you wish.” Make sure you replace the whole line not just the name.

In this exercise, the sed command: `sed 's/.Westley Pirate*/As you wish./g' SedLab` will replace the name Westley Pirate to “As you wish”. The s will search and substitute Westley Pirate to As you Wish, and “g” replace globally on the sed file.

```
jwilliams@jwilliams-ubuntu-server:~$ sed 's/.Westley Pirate*/As you wish./g' SedLab
Huckleberry Finn:238-923-7366:95 Latham Lane, Easton, PA 83755:11/12/56:20300
Betty Boop:245-836-8357:635 Cutesy Lane, Hollywood, CA 91464:6/23/23:14500
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Hester Prynne:408-253-3122:123 Park St., San Jose, CA 04086:7/25/53:85100
As you wish.:284-758-2857:23 Edgecliff Place, Lincoln , NB 92743:7/25/53:85100
As you wish.:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200
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Ephram Hardy:293-259-5395:235 Carlton Lane, Joliet, IL 73858:8/12/20:56700
Meg Murry:834-938-8376:23445 Aster Ave., Allentown, NJ 83745:12/1/38:45000
Lucy Pevensie:385-573-8326:832 Ponce Drive, Gzary, IN 83756:12/1/46:268500
Hemione Granger:408-456-1234:4 Harvard Square, Boston, MA 02133:4/22/62:52600
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Popeye Sailor:156-454-3322:945 Bluto Street, NotHere, USA 29358:3/19/35:22350
Luna Lovegood:385-898-8357:38 Fife Way, Abilene, TX 39673:1/5/58:95600
Daenerys Targaryen:408-724-0140:1222 Oxbow Court, Sunnyvale, CA 94087:5/19/66:34200
Molly Weasley:387-827-1095:13 Uno Lane, Ashville, NC 23556:7/1/29:57000
Arya Stark:438-910-7449:8235 Maple Street, Wilmington, VM 29085:9/23/63:68900
jwilliams@jwilliams-ubuntu-server:~$
```

8. Change Minerva McGonagall's birthday to 10/04/1935. Assume you don't know Minerva's original birthday. Use a regular expression to search for it.

The sed expression: `sed 'Minerva McGonagall/s#[0-9]*/[0-9][0-9]/[0-9][0-9]#10/04/35#g'` SedLab will change Minerva's birthday to 10/04/1935. The format of the date is important in this case, the 0-9 search is better since we don't know Minerva's birthday. The "g" is typically means global.

```
jwilliams@jwilliams-ubuntu-server: ~  
jwilliams@jwilliams-ubuntu-server:~$ sed 'Minerva McGonagall/s#[0-9]*/[0-9][0-9]/[0-9][0-9]#10/04/35#g' SedLab  
Huckleberry Finn:238-923-7366:95 Latham Lane, Easton, PA 83755:11/12/56:20300  
Betty Boop:245-836-8357:635 Cutesy Lane, Hollywood, CA 91464:6/23/23:14500  
Dorian Gray:385-375-8395:3567 Populus Place, Caldwell, NJ 23875:6/18/68:23400  
Holly Golightly:397-857-2735:74 Pine Street, Dearborn, MI 23874:3/28/45:245700  
Ebenezer Scrooge:540-834-2348:583 Laurel Ave., Kingsville, TX 83745:10/1/35:58900  
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Westley Pirate:284-758-2857:23 Edgecliff Place, Lincoln, NB 92743:7/25/53:85100  
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Lizzie Bennett:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900  
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Jo March:327-832-5728:3465 Mirlo Street, Peabody, MA 34756:10/2/65:35200  
Victor Frankenstein:835-365-1284:454 Easy Street, Decatur, IL 75732:2/28/53:123500  
Ephram Hardy:293-259-5395:235 Carlton Lane, Joliet, IL 73858:8/12/20:56700  
Meg Murry:834-938-8376:23445 Aster Ave., Allentown, NJ 83745:12/1/38:45000  
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Mary Poppins:846-836-2837:6937 Ware Road, Milton, PA 93756:9/21/46:43500  
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Minerva McGonagall:408-233-8971:45 Rose Terrace, San Francisco, CA 92303:10/04/35:25000  
Zippy Pinhead:834-823-8319:2356 Bizarro Ave., Farmount, IL 84357:1/1/67:89500  
Dorothy Gale:923-835-8745:23 Wimp Lane, Kensington, DL 38758:8/31/69:126000  
Popeye Sailor:156-454-3322:945 Bluto Street, NotHere, USA 29358:3/19/35:22350  
Luna Lovegood:385-898-8357:38 Fife Way, Abilene, TX 39673:1/5/58:95600  
Daenerys Targaryen:408-724-0140:1222 Oxbow Court, Sunnyvale, CA 94087:5/19/66:34200  
Molly Weasley:387-827-1095:13 Uno Lane, Ashville, NC 23556:7/1/29:57000  
Arya Stark:438-910-7449:8235 Maple Street, Wilmington, VM 29085:9/23/63:68900  
jwilliams@jwilliams-ubuntu-server:~$
```

9. Delete all blank lines.

The sed command: `sed '/^$/d' SedLab` will delete all blank lines. The `^$` initiate to find and delete any lines based on the given requirements, as well as `'d'` means to delete.

```
jwilliams@jwilliams-ubuntu-server:~$ sed '/^$/d' SedLab
Huckleberry Finn:238-923-7366:95 Latham Lane, Easton, PA 83755:11/12/56:20300
Betty Boop:245-836-8357:635 Cutesy Lane, Hollywood, CA 91464:6/23/23:14500
Dorian Gray:385-375-8395:3567 Populus Place, Caldwell, NJ 23875:6/18/68:23400
Holly Golightly:397-857-2735:74 Pine Street, Dearborn, MI 23874:3/28/45:245700
Ebenezer Scrooge:548-834-2348:583 Laurel Ave., Kingsville, TX 83745:10/1/35:58900
Hester Prynne:408-253-3122:123 Park St., San Jose, CA 04086:7/25/53:85100
Westley Pirate:284-758-2857:23 Edgecliff Place, Lincoln, NB 92743:7/25/53:85100
Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200
Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200
Lizzie Bennett:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900
Nancy Drew:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900
Jo March:327-832-5728:3465 Mirlo Street, Peabody, MA 34756:10/2/65:35200
Victor Frankenstein:835-365-1284:454 Easy Street, Decatur, IL 75732:2/28/53:123500
Ephram Hardy:293-259-5395:235 Carlton Lane, Joliet, IL 73858:8/12/20:56700
Meg Murry:834-938-8376:23445 Aster Ave., Allentown, NJ 83745:12/1/38:45000
Lucy Pevensie:385-573-8326:832 Ponce Drive, Gzary, IN 83756:12/1/46:268500
Hemione Granger:408-456-1234:4 Harvard Square, Boston, MA 02133:4/22/62:52600
Mary Poppins:846-836-2837:6937 Ware Road, Milton, PA 93756:9/21/46:43500
Sir Lancelot:837-835-8257:474 Camelot Boulevard, Bath, WY 28356:5/13/69:24500
Minerva McGonagall:408-233-8971:45 Rose Terrace, San Francisco, CA 92303:2/3/36:25000
Zippy Pinhead:834-823-8319:2356 Bizarro Ave., Farmount, IL 84357:1/1/67:89500
Dorothy Gale:923-835-8745:23 Wimp Lane, Kensington, DL 38758:8/31/69:126000
Popeye Sailor:156-454-3322:945 Bluto Street, NotHere, USA 29358:3/19/35:22350
Luna Lovegood:385-898-8357:38 Fife Way, Abilene, TX 39673:1/5/58:95600
Daenerys Targaryen:408-724-0140:1222 Oxbow Court, Sunnyvale, CA 94087:5/19/66:34200
Molly Weasley:387-827-1095:13 Uno Lane, Ashville, NC 23556:7/1/29:57000
Arya Stark:438-910-7449:8235 Maple Street, Wilmington, VM 29085:9/23/63:68900
jwilliams@jwilliams-ubuntu-server:~$
```

10. Write a sed script that will (actual sed script, NOT just the commands on the command line)

- Insert above the first line the title – Great Literary Characters -.

The below script was created using vi text editor follow by the name of the script file you would like to use. In the `#!/bin/bash` will find the script on the terminal, and the `"li\"` to insert the words “Great Literacy Character on line 1, as you run the script.

Sed Script

```
#!/bin/bash
```

```
#seda
```

```
li\ - Great Literary Characters-
```

The command: `sed -f mysedscripta.sed SedLab` displayed the result of the script as shown below.

```
jwilliams@jwilliams-ubuntu-server:~$ sed -f mysedscripta.sed SedLab
- Great Literary Characters -
Huckleberry Finn:238-923-7366:95 Latham Lane, Easton, PA 83755:11/12/56:20300

Betty Boop:245-836-8357:635 Cutesy Lane, Hollywood, CA 91464:6/23/23:14500

Dorian Gray:385-375-8395:3567 Populus Place, Caldwell, NJ 23875:6/18/68:23400
```

- Print the contents of the file, but instead of the phone number starting with an area code and number. For example, (603-123-1234 would turn into 1+(603)123-1234.

- c. Append at the end of the file “Happily Ever after. The End”

Sed Script

```
#!/bin/bash
```

```
#sedc
```

```
$a'Happy Ever After. The End'
```

The command: `sed -f mysedscriptc.sed SedLab` shows the result of the script “Happy Ever After. The End” at the end of the SedLab file. The -f search and run the result of the script, followed by the script filename and the sed filename.

```
jwilliams@jwilliams-ubuntuserver:~$ sed -f mysedscriptc.sed SedLab
Huckleberry Finn:238-923-7366:95 Latham Lane, Easton, PA 83755:11/12/56:20300
Betty Boop:245-836-8357:635 Cutesy Lane, Hollywood, CA 91464:6/23/23:14500
Dorian Gray:385-375-8395:3567 Populus Place, Caldwell, NJ 23875:6/18/68:23400
Holly Golightly:397-857-2735:74 Pine Street, Dearborn, MI 23874:3/28/45:245700
Ebenezer Scrooge:548-834-2348:583 Laurel Ave., Kingsville, TX 83745:10/1/35:58900
Hester Prynne:408-253-3122:123 Park St., San Jose, CA 04086:7/25/53:85100
Westley Pirate:284-758-2857:23 Edgecliff Place, Lincoln , NB 92743:7/25/53:85100
Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200
Westley Pirate:284-758-2867:23 Edgecliff Place, Lincoln, NB 92743:11/3/35:58200
Lizzie Bennett:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900
Nancy Drew:674-843-1385:20 Parak Lane, Duluth, MN 23850:4/12/23:780900
Jo March:327-832-5728:3465 Mirlo Street, Peabody, MA 34756:10/2/65:35200
Victor Frankenstein:835-365-1284:454 Easy Street, Decatur, IL 75732:2/28/53:123500
Ephram Hardy:293-259-5395:235 CarltonLane, Joliet, IL 73858:8/12/20:56700
Meg Murry:834-938-8376:23445 Aster Ave., Allentown, NJ 83745:12/1/38:45000
Lucy Pevensie:385-573-8326:832 Ponce Drive, Gzary, IN 83756:12/1/46:268500
Hemione Granger:408-456-1234:4 Harvard Square, Boston, MA 02133:4/22/62:52600
Mary Poppins:846-836-2837:6937 Ware Road, Milton, PA 93756:9/21/46:43500
Sir Lancelot:837-835-8257:474 Camelot Boulevard, Bath, WY 28356:5/13/69:24500
Minerva McGonagall:408-233-8971:45 Rose Terrace, San Francisco, CA 92303:2/3/36:25000
Zippy Pinhead:834-823-8319:2356 Bizarro Ave., Farmount, IL 84357:1/1/67:89500
Dorothy Gale:923-835-8745:23 Wimp Lane, Kensington, DL 38758:8/31/69:126000
Popeye Sailor:156-454-3322:945 Bluto Street, NotHere, USA 29358:3/19/35:22350
Luna Lovegood:385-898-8357:38 Fife Way, Abilene, TX 39673:1/5/58:95600
Daenerys Targaryen:408-724-0140:1222 Oxbow Court, Sunnyvale, CA 94087:5/19/66:34200
Molly Weasley:387-827-1095:13 Uno Lane, Ashville, NC 23556:7/1/29:57000
Arya Stark:438-910-7449:8235 Maple Street, Wilmington, VM 29085:9/23/63:68900
'Happily Ever After. The End.'
```

References:

1.

<https://www.thegeekstuff.com/2009/09/unix-sed-tutorial-printing-file-lines-using-address-and-patterns/>

By Sasikala

2.

<https://flylib.com/books/en/4.356.1.41/1/> By Ellie Quigley

3.

<https://levelup.gitconnected.com/how-to-use-sed-to-manipulate-text-files-part-1-print-delete-append-aa444143c4bd> by Afnan Mostafa