EPAM University Programs

DevOps external course

Module 4 Linux & Bash Essentials

TASK 4.8

Работа предполагается в скриптах, поэтому все командные последовательности оформляем в скрипт, текст которого ставим перед файлом с выполненным заданием. С той же целью вывод каждого задания перенаправляем в отдельный файл отчета (скрипт при этом можно сделать общим для всех заданий 4.8).

Кроме того, для выполнения данного задания создать на git-репозитории отдельную папку, в которую поместить все созданные скрипты и результаты их выполнения.

В итоге от вас я ожидаю увидеть отчет по работе, включающий в себя скрипт по каждому пункту задания и результаты его выполнения, а также папку со скриптом (скриптами) и отчетами по каждому из пунктов.

4.8.1 Create a file with the result of extended recursive listing of the home directory.

```bash
#!/bin/bash
# Go to home directory
cd
# Create file with extended recursive listing of the home directory
ls -Rl > file481
echo "file in the home directory"
```

```
.:
total 32
drwxr-xr-x 3 bobrov bobrov 4096 Apr 29 09:24 Desktop
drwxr-xr-x 4 bobrov bobrov 4096 Apr 29 09:32 Documents
drwxr-xr-x 4 bobrov bobrov 4096 Apr 30 23:39 Downloads
-rw-rw-r-- 1 bobrov bobrov    0 May  2 13:04 file481
drwxr-xr-x 2 bobrov bobrov 4096 Apr  5 01:13 Music
drwxr-xr-x 2 bobrov bobrov 4096 Apr  5 01:13 Pictures
drwxr-xr-x 2 bobrov bobrov 4096 Apr  5 01:13 Public
drwxr-xr-x 2 bobrov bobrov 4096 Apr  5 01:13 Templates
drwxr-xr-x 3 bobrov bobrov 4096 Apr 29 09:39 Videos

./Desktop:
total 4
drwxr-xr-x 4 bobrov bobrov 4096 Apr 29 09:25 dirDesk

./Desktop/dirDesk:
total 8
drwxr-xr-x 2 bobrov bobrov 4096 Apr 29 09:26 dir1
drwxr-xr-x 2 bobrov bobrov 4096 Apr 29 09:26 dir2

./Desktop/dirDesk/dir1:
total 0
-rw-r--r-- 1 bobrov bobrov 0 Apr 29 10:30 file1

./Desktop/dirDesk/dir2:
total 0
-rw-r--r-- 1 bobrov bobrov 0 Apr 29 10:30 file2

./Documents:
total 8
drwxr-xr-x 2 bobrov bobrov 4096 Apr 29 09:39 dir1
drwxr-xr-x 2 bobrov bobrov 4096 May  2 13:04 dir2

./Documents/dir1:
total 0
-rw-rw-r-- 1 bobrov bobrov 0 Apr 29 10:30 file1
```

```
-rw-rw-r-- 1 bobrov bobrov 0 Apr 29 10:30 file1

./Documents/dir2:
total 20
-rwxrwxr-x 1 bobrov bobrov 159 May  2 12:58 myscript481
-rwxrwxr-x 1 bobrov bobrov 277 May  2 12:54 myscript482a
-rwxrwxr-x 1 bobrov bobrov 289 May  2 13:02 myscript482b
-rwxrwxr-x 1 bobrov bobrov 342 May  2 13:04 myscript483
-rwxrwxr-x 1 bobrov bobrov 354 May  2 12:11 myscript484

./Downloads:
total 40
drwxrwxr-x 4 bobrov bobrov  4096 Apr 29 09:39 dirDown
drwxrwxr-x 2 bobrov bobrov  4096 Apr 30 23:38 java
-rw-rw-r-- 1 bobrov bobrov 32149 Apr 30 23:39 java.zip

./Downloads/dirDown:
total 8
drwxrwxr-x 2 bobrov bobrov 4096 Apr 29 09:39 dir1
drwxrwxr-x 2 bobrov bobrov 4096 Apr 29 09:39 dir2

./Downloads/dirDown/dir1:
total 0
-rw-rw-r-- 1 bobrov bobrov 0 Apr 29 10:30 file1

./Downloads/dirDown/dir2:
total 0
-rw-rw-r-- 1 bobrov bobrov 0 Apr 29 10:30 file2

./Downloads/java:
total 52
-rw-rw-r-- 1 bobrov bobrov 8921 Mar 27  2019 aether-transport-file-1.1.0.jar
-rw-rw-r-- 1 bobrov bobrov 2254 Mar 27  2019 jcip-annotations-1.0.jar
-rw-rw-r-- 1 bobrov bobrov 3938 Mar 27  2019 jps-launcher.jar
-rw-rw-r-- 1 bobrov bobrov 7098 Mar 27  2019 jshell-frontend.jar
-rw-rw-r-- 1 bobrov bobrov 3137 Mar 27  2019 kotlin-stdlib-jdk7-1.3.11.jar
-rw-rw-r-- 1 bobrov bobrov 3963 Mar 27  2019 kotlin-test-common-1.3.11.jar
```

```
-rw-rw-r-- 1 bobrov bobrov 3963 Mar 27  2019 kotlin-test-common-1.3.11.jar
-rw-rw-r-- 1 bobrov bobrov 4265 Mar 27  2019 plexus-component-annotations-1.6.jar
-rw-rw-r-- 1 bobrov bobrov 7188 Mar 27  2019 xmlpull-1.1.3.1.jar

./Music:
total 0

./Pictures:
total 0

./Public:
total 0

./Templates:
total 0

./Videos:
total 4
drwxrwxr-x 2 bobrov bobrov 4096 Apr 29 09:39 dirVid

./Videos/dirVid:
total 0
-rw-rw-r-- 1 bobrov bobrov 0 Apr 29 10:30 fileVid
```

4.8.2a Replace username with any other with sed.

```bash
#!/bin/bash
# Go to home directory
cd
# Create file with extended recursive listing of the home directory
ls -Rl > filedir2
echo "file in the home directory"
# Username replacement with sed
sed 's/bobrov/superman/' ./filedir2 > file482a
# Delete temporary file
rm filedir2
```

```
.:
total 36
drwxr-xr-x 3 superman bobrov 4096 Apr 29 09:24 Desktop
drwxr-xr-x 4 superman bobrov 4096 Apr 29 09:32 Documents
drwxr-xr-x 4 superman bobrov 4096 Apr 30 23:39 Downloads
-rw-rw-r-- 1 superman bobrov 2667 May  2 13:04 file481
-rw-rw-r-- 1 superman bobrov    0 May  2 13:05 filedir2
drwxr-xr-x 2 superman bobrov 4096 Apr  5 01:13 Music
drwxr-xr-x 2 superman bobrov 4096 Apr  5 01:13 Pictures
drwxr-xr-x 2 superman bobrov 4096 Apr  5 01:13 Public
drwxr-xr-x 2 superman bobrov 4096 Apr  5 01:13 Templates
drwxr-xr-x 3 superman bobrov 4096 Apr 29 09:39 Videos

./Desktop:
total 4
drwxr-xr-x 4 superman bobrov 4096 Apr 29 09:25 dirDesk

./Desktop/dirDesk:
total 8
drwxr-xr-x 2 superman bobrov 4096 Apr 29 09:26 dir1
drwxr-xr-x 2 superman bobrov 4096 Apr 29 09:26 dir2

./Desktop/dirDesk/dir1:
total 0
-rw-r--r-- 1 superman bobrov 0 Apr 29 10:30 file1

./Desktop/dirDesk/dir2:
total 0
-rw-r--r-- 1 superman bobrov 0 Apr 29 10:30 file2

./Documents:
total 8
drwxr-xr-x 2 superman bobrov 4096 Apr 29 09:39 dir1
drwxr-xr-x 2 superman bobrov 4096 May  2 13:04 dir2

./Documents/dir1:
total 0
```

```
total 0
-rw-rw-r-- 1 superman bobrov 0 Apr 29 10:30 file1

./Documents/dir2:
total 20
-rwxrwxr-x 1 superman bobrov 159 May  2 12:58 myscript481
-rwxrwxr-x 1 superman bobrov 277 May  2 12:54 myscript482a
-rwxrwxr-x 1 superman bobrov 289 May  2 13:02 myscript482b
-rwxrwxr-x 1 superman bobrov 342 May  2 13:04 myscript483
-rwxrwxr-x 1 superman bobrov 354 May  2 12:11 myscript484

./Downloads:
total 40
drwxrwxr-x 4 superman bobrov  4096 Apr 29 09:39 dirDown
drwxrwxr-x 2 superman bobrov  4096 Apr 30 23:38 java
-rw-rw-r-- 1 superman bobrov 32149 Apr 30 23:39 java.zip

./Downloads/dirDown:
total 8
drwxrwxr-x 2 superman bobrov 4096 Apr 29 09:39 dir1
drwxrwxr-x 2 superman bobrov 4096 Apr 29 09:39 dir2

./Downloads/dirDown/dir1:
total 0
-rw-rw-r-- 1 superman bobrov 0 Apr 29 10:30 file1

./Downloads/dirDown/dir2:
total 0
-rw-rw-r-- 1 superman bobrov 0 Apr 29 10:30 file2

./Downloads/java:
total 52
-rw-rw-r-- 1 superman bobrov 8921 Mar 27  2019 aether-transport-file-1.1.0.jar
-rw-rw-r-- 1 superman bobrov 2254 Mar 27  2019 jcip-annotations-1.0.jar
-rw-rw-r-- 1 superman bobrov 3938 Mar 27  2019 jps-launcher.jar
-rw-rw-r-- 1 superman bobrov 7098 Mar 27  2019 jshell-frontend.jar
-rw-rw-r-- 1 superman bobrov 3137 Mar 27  2019 kotlin-stdlib-jdk7-1.3.11.jar
```

```
-rw-rw-r-- 1 superman bobrov 3137 Mar 27  2019 kotlin-stdlib-jdk7-1.3.11.jar
-rw-rw-r-- 1 superman bobrov 3963 Mar 27  2019 kotlin-test-common-1.3.11.jar
-rw-rw-r-- 1 superman bobrov 4265 Mar 27  2019 plexus-component-annotations-1.6.jar
-rw-rw-r-- 1 superman bobrov 7188 Mar 27  2019 xmlpull-1.1.3.1.jar

./Music:
total 0

./Pictures:
total 0

./Public:
total 0

./Templates:
total 0

./Videos:
total 4
drwxrwxr-x 2 superman bobrov 4096 Apr 29 09:39 dirVid

./Videos/dirVid:
total 0
-rw-rw-r-- 1 superman bobrov 0 Apr 29 10:30 fileVid
```

4.8.2b Replace username with any other with awk.

```bash
#!/bin/bash
# Go to home directory
cd
# Create file with extended recursive listing of the home directory
ls -Rl > filedir2
echo "file in the home directory"
# Username replacement with awk
awk '{sub(/bobrov/, "batman"); print}' filedir2 > file482b
# Delete temporary file
rm filedir2
```

```
.:
total 40
drwxr-xr-x 3 batman bobrov 4096 Apr 29 09:24 Desktop
drwxr-xr-x 4 batman bobrov 4096 Apr 29 09:32 Documents
drwxr-xr-x 4 batman bobrov 4096 Apr 30 23:39 Downloads
-rw-rw-r-- 1 batman bobrov 2667 May  2 13:04 file481
-rw-rw-r-- 1 batman bobrov 2801 May  2 13:05 file482a
-rw-rw-r-- 1 batman bobrov    0 May  2 13:05 filedir2
drwxr-xr-x 2 batman bobrov 4096 Apr  5 01:13 Music
drwxr-xr-x 2 batman bobrov 4096 Apr  5 01:13 Pictures
drwxr-xr-x 2 batman bobrov 4096 Apr  5 01:13 Public
drwxr-xr-x 2 batman bobrov 4096 Apr  5 01:13 Templates
drwxr-xr-x 3 batman bobrov 4096 Apr 29 09:39 Videos

./Desktop:
total 4
drwxr-xr-x 4 batman bobrov 4096 Apr 29 09:25 dirDesk

./Desktop/dirDesk:
total 8
drwxr-xr-x 2 batman bobrov 4096 Apr 29 09:26 dir1
drwxr-xr-x 2 batman bobrov 4096 Apr 29 09:26 dir2

./Desktop/dirDesk/dir1:
total 0
-rw-r--r-- 1 batman bobrov 0 Apr 29 10:30 file1

./Desktop/dirDesk/dir2:
total 0
-rw-r--r-- 1 batman bobrov 0 Apr 29 10:30 file2

./Documents:
total 8
drwxr-xr-x 2 batman bobrov 4096 Apr 29 09:39 dir1
drwxr-xr-x 2 batman bobrov 4096 May  2 13:04 dir2

./Documents/dir1:
```

```
./Documents/dir1:
total 0
-rw-rw-r-- 1 batman bobrov 0 Apr 29 10:30 file1

./Documents/dir2:
total 20
-rwxrwxr-x 1 batman bobrov 159 May  2 12:58 myscript481
-rwxrwxr-x 1 batman bobrov 277 May  2 12:54 myscript482a
-rwxrwxr-x 1 batman bobrov 289 May  2 13:02 myscript482b
-rwxrwxr-x 1 batman bobrov 342 May  2 13:04 myscript483
-rwxrwxr-x 1 batman bobrov 354 May  2 12:11 myscript484

./Downloads:
total 40
drwxrwxr-x 4 batman bobrov  4096 Apr 29 09:39 dirDown
drwxrwxr-x 2 batman bobrov  4096 Apr 30 23:38 java
-rw-rw-r-- 1 batman bobrov 32149 Apr 30 23:39 java.zip

./Downloads/dirDown:
total 8
drwxrwxr-x 2 batman bobrov 4096 Apr 29 09:39 dir1
drwxrwxr-x 2 batman bobrov 4096 Apr 29 09:39 dir2

./Downloads/dirDown/dir1:
total 0
-rw-rw-r-- 1 batman bobrov 0 Apr 29 10:30 file1

./Downloads/dirDown/dir2:
total 0
-rw-rw-r-- 1 batman bobrov 0 Apr 29 10:30 file2

./Downloads/java:
total 52
-rw-rw-r-- 1 batman bobrov 8921 Mar 27  2019 aether-transport-file-1.1.0.jar
-rw-rw-r-- 1 batman bobrov 2254 Mar 27  2019 jcip-annotations-1.0.jar
-rw-rw-r-- 1 batman bobrov 3938 Mar 27  2019 jps-launcher.jar
-rw-rw-r-- 1 batman bobrov 7098 Mar 27  2019 jshell-frontend.jar
```

```
-rw-rw-r-- 1 batman bobrov 7098 Mar 27  2019 jshell-frontend.jar
-rw-rw-r-- 1 batman bobrov 3137 Mar 27  2019 kotlin-stdlib-jdk7-1.3.11.jar
-rw-rw-r-- 1 batman bobrov 3963 Mar 27  2019 kotlin-test-common-1.3.11.jar
-rw-rw-r-- 1 batman bobrov 4265 Mar 27  2019 plexus-component-annotations-1.6.jar
-rw-rw-r-- 1 batman bobrov 7188 Mar 27  2019 xmlpull-1.1.3.1.jar

./Music:
total 0

./Pictures:
total 0

./Public:
total 0

./Templates:
total 0

./Videos:
total 4
drwxrwxr-x 2 batman bobrov 4096 Apr 29 09:39 dirVid

./Videos/dirVid:
total 0
-rw-rw-r-- 1 batman bobrov 0 Apr 29 10:30 fileVid
```

4.8.3 Delete the line with the total number of files.

```bash
#!/bin/bash
# Go to home directory
cd
# Create file with extended recursive listing of the home directory
ls -Rl > filedir2
echo "file in the home directory"
# Username replacement with sed
sed 's/bobrov/superman/' ./filedir2 > fileX
# Delete string with total files
sed '/total/d' fileX > file483
# Delete temporary files
rm filedir2 fileX
```

```
.:
drwxr-xr-x 3 superman bobrov 4096 Apr 29 09:24 Desktop
drwxr-xr-x 4 superman bobrov 4096 Apr 29 09:32 Documents
drwxr-xr-x 4 superman bobrov 4096 Apr 30 23:39 Downloads
-rw-rw-r-- 1 superman bobrov 2667 May  2 13:04 file481
-rw-rw-r-- 1 superman bobrov 2801 May  2 13:05 file482a
-rw-rw-r-- 1 superman bobrov 2775 May  2 13:05 file482b
-rw-rw-r-- 1 superman bobrov    0 May  2 13:05 filedir2
drwxr-xr-x 2 superman bobrov 4096 Apr  5 01:13 Music
drwxr-xr-x 2 superman bobrov 4096 Apr  5 01:13 Pictures
drwxr-xr-x 2 superman bobrov 4096 Apr  5 01:13 Public
drwxr-xr-x 2 superman bobrov 4096 Apr  5 01:13 Templates
drwxr-xr-x 3 superman bobrov 4096 Apr 29 09:39 Videos

./Desktop:
drwxr-xr-x 4 superman bobrov 4096 Apr 29 09:25 dirDesk

./Desktop/dirDesk:
drwxr-xr-x 2 superman bobrov 4096 Apr 29 09:26 dir1
drwxr-xr-x 2 superman bobrov 4096 Apr 29 09:26 dir2

./Desktop/dirDesk/dir1:
-rw-r--r-- 1 superman bobrov 0 Apr 29 10:30 file1

./Desktop/dirDesk/dir2:
-rw-r--r-- 1 superman bobrov 0 Apr 29 10:30 file2

./Documents:
drwxr-xr-x 2 superman bobrov 4096 Apr 29 09:39 dir1
drwxr-xr-x 2 superman bobrov 4096 May  2 13:04 dir2

./Documents/dir1:
-rw-rw-r-- 1 superman bobrov 0 Apr 29 10:30 file1

./Documents/dir2:
-rwxrwxr-x 1 superman bobrov 159 May  2 12:58 myscript481
-rwxrwxr-x 1 superman bobrov 277 May  2 12:54 myscript482a
```

```
-rwxrwxr-x 1 superman bobrov 277 May   2 12:54 myscript482a
-rwxrwxr-x 1 superman bobrov 289 May   2 13:02 myscript482b
-rwxrwxr-x 1 superman bobrov 342 May   2 13:04 myscript483
-rwxrwxr-x 1 superman bobrov 354 May   2 12:11 myscript484

./Downloads:
drwxrwxr-x 4 superman bobrov  4096 Apr 29 09:39 dirDown
drwxrwxr-x 2 superman bobrov  4096 Apr 30 23:38 java
-rw-rw-r-- 1 superman bobrov 32149 Apr 30 23:39 java.zip

./Downloads/dirDown:
drwxrwxr-x 2 superman bobrov 4096 Apr 29 09:39 dir1
drwxrwxr-x 2 superman bobrov 4096 Apr 29 09:39 dir2

./Downloads/dirDown/dir1:
-rw-rw-r-- 1 superman bobrov 0 Apr 29 10:30 file1

./Downloads/dirDown/dir2:
-rw-rw-r-- 1 superman bobrov 0 Apr 29 10:30 file2

./Downloads/java:
-rw-rw-r-- 1 superman bobrov 8921 Mar 27  2019 aether-transport-file-1.1.0.jar
-rw-rw-r-- 1 superman bobrov 2254 Mar 27  2019 jcip-annotations-1.0.jar
-rw-rw-r-- 1 superman bobrov 3938 Mar 27  2019 jps-launcher.jar
-rw-rw-r-- 1 superman bobrov 7098 Mar 27  2019 jshell-frontend.jar
-rw-rw-r-- 1 superman bobrov 3137 Mar 27  2019 kotlin-stdlib-jdk7-1.3.11.jar
-rw-rw-r-- 1 superman bobrov 3963 Mar 27  2019 kotlin-test-common-1.3.11.jar
-rw-rw-r-- 1 superman bobrov 4265 Mar 27  2019 plexus-component-annotations-1.6.jar
-rw-rw-r-- 1 superman bobrov 7188 Mar 27  2019 xmlpull-1.1.3.1.jar

./Music:

./Pictures:

./Public:

./Templates:

./Templates:

./Videos:
drwxrwxr-x 2 superman bobrov 4096 Apr 29 09:39 dirVid

./Videos/dirVid:
-rw-rw-r-- 1 superman bobrov 0 Apr 29 10:30 fileVid
```

4.8.4 Display columns: file creation date and its name.

```bash
#!/bin/bash
# Go to home directory
cd
# Create file with extended recursive listing of the home directory
ls -RFl > filedir2
echo "file in the home directory"
# Show only files
sed '/\/$\|^$\|^\.\|total/d' filedir2 > fileF
# Show columns dates and names for files
awk '{print $6,$7,$8,$9}' fileF > file484
# Delete temporary files
rm fileF filedir2
```

```
May 2 13:04 file481
May 2 13:05 file482a
May 2 13:05 file482b
May 2 13:05 file483
May 2 13:05 filedir2
Apr 29 10:30 file1
Apr 29 10:30 file2
Apr 29 10:30 file1
May 2 12:58 myscript481*
May 2 12:54 myscript482a*
May 2 13:02 myscript482b*
May 2 13:04 myscript483*
May 2 12:11 myscript484*
Apr 30 23:39 java.zip
Apr 29 10:30 file1
Apr 29 10:30 file2
Mar 27 2019 aether-transport-file-1.1.0.jar
Mar 27 2019 jcip-annotations-1.0.jar
Mar 27 2019 jps-launcher.jar
Mar 27 2019 jshell-frontend.jar
Mar 27 2019 kotlin-stdlib-jdk7-1.3.11.jar
Mar 27 2019 kotlin-test-common-1.3.11.jar
Mar 27 2019 plexus-component-annotations-1.6.jar
Mar 27 2019 xmlpull-1.1.3.1.jar
Apr 29 10:30 fileVid
```

4.8.5 Find and display all file names that contain a digit.

```bash
#!/bin/bash
# Go to home directory
cd
# Create file with extended recursive listing of the home directory
ls -RFl > filedir2
echo "file in the home directory"
# Show only files
sed '/\/$\|^$\|^\.\|total/d' filedir2 > fileF
# Show columns names with one or more digits in filename
awk '$9 ~ /[0-9]/ {print $9}' fileF > file485
# Delete temporary files
rm fileF filedir2
```

```
file481
file482a
file482b
file483
file484
file485
file486
filedir2
file1
file2
file1
myscript481*
myscript482a*
myscript482b*
myscript483*
myscript484*
myscript485*
myscript486*
file1
file2
aether-transport-file-1.1.0.jar
jcip-annotations-1.0.jar
kotlin-stdlib-jdk7-1.3.11.jar
kotlin-test-common-1.3.11.jar
plexus-component-annotations-1.6.jar
xmlpull-1.1.3.1.jar
```

4.8.6 Find and display all file names that have the extension.

```bash
#!/bin/bash
# Go to home directory
cd
# Create file with extended recursive listing of the home directory
ls -RFl > filedir2
echo "file in the home directory"
# Show only files
sed '/\/$\|^$\|^\.\|total/d' filedir2 > fileF
# Show files with extension
awk '$9 ~ /\..*$/ {print $9}' fileF > file486
# Delete temporary files
rm fileF filedir2
```

```
java.zip
aether-transport-file-1.1.0.jar
jcip-annotations-1.0.jar
jps-launcher.jar
jshell-frontend.jar
kotlin-stdlib-jdk7-1.3.11.jar
kotlin-test-common-1.3.11.jar
plexus-component-annotations-1.6.jar
xmlpull-1.1.3.1.jar
```