



SHELLSCRIPT INTERVIEW QUESTIONS

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Shell Script Test 1

1) What is Shell?

Ans)

2) How to check how many shells that Linux/Unix server will support?

Ans)

3) What are the different shell types?

Ans)

4) How many types of comments does shell script support?

Ans)

5) What is command line arguments?

Ans)

6) What is the difference between \$* and @\$?

Ans)

7) Write down the syntax for if condition?

Ans)

8) Write down the syntax for for loop?

Ans)

9) Write down the syntax for function and write one function and call that function?

Ans)

10) What is the difference between > and >> and < and what is the standard output and standard error codes?

Ans)

11) How to display one variable (take variable name as technology) value?

Ans)

12) How many types of variables in Shell scripting?

Ans)

13) Write some System defined variables?

Ans)

14) What is String?

Ans)

15) How to find the length of the given string?

Ans)

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Shell Script Test 2

1) Write a shell script to accept the name from name and age from the user and display that back to the user.

Ans)

2) Write a shell script to accept a file name from the user and make a copy of that file.

Ans)

3) Write a shell script to accept file name from the user and display the contents of file. If the file doesn't exist then try curbing the error and display a user friendly error to user.

Ans)

4) Write a shell script to accept a file name from user and check whether its an ordinary file or a directory. In case of file show the contents of file and if it's a directory show number of files in that directory.

Ans)

5) Write a shell script to accept a file name from user. Check whether file has all the permissions if not assign the respective permissions to that file.

Ans)

6) Write a shell script to accept a file name from the user and sort the file. If the file doesn't exist curb the error message and show the user-friendly message.

Ans)

Shell Script Test 3

1) What is Shell?

Ans)

2) How to check how many shells that Linux/Unix server will support?

Ans)

3) What are the different shell types?

Ans)

4) How many types of comments does shell script support?

Ans)

5) What is command line arguments?

Ans)

6) What is the difference between \$* and \$@?

Ans)

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7) Write down the syntax for if condition?

Ans)

8) Write down the syntax for “for loop”?

Ans)

9) Write down the syntax for function and write one function and call that function?

Ans)

10) What is the difference between > and >> and < and what is the standard output and standard error codes?

Ans)

11) How to display one variable value?

Ans)

12) How many types of variables in Shell scripting?

Ans)

13) Write some System defined variables?

Ans)

14) What is String?

Ans)

15) How to find the length of the given string?

Ans)

16) Write a shell script to accept the name from name and age from the user and display that back to the user.

Ans)

17) Write a shell script to accept a file name from the user and make a copy of that file.

Ans)

18) Write a shell script to accept file name from the user and display the contents of file. If the file doesn't exist, then try curbing the error and display a user friendly error to user.

Ans)

19) Write a shell script to accept a file name from user and check whether its an ordinary file or a directory. In case of file show the contents of file and if it is a directory show number of files in that directory.

Ans)

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20) Write a shell script to accept a file name from user. Check whether file has all the permissions if not assign the respective permissions to that file.

Ans)

21) Write a shell script to accept a file name from the user and sort the file. If the file doesn't exist curb the error message and show the user-friendly message.

Ans)

22)How can you run a shell script in debug mode? --> CricBuzz

Ans)

23)How to run a shell script in background?

Ans)

24)How to send error logs and stdout logs in different files?

Ans)

25)How to run a script at boot level?

Ans)

26)In Shell script what are the predefined variables are there?

Ans)

27)How to declare a variable in a shell script?

Ans)

28)What is \$?, \$#, \$* ?

Ans)

29)What is the command for status of last command execution or last command execution status in linux and what is the output of that command?

Ans)

30)What is the purpose of export command?

Ans)

31)How to read a command line input in shell script?

Ans)

Dell

32)How to find the previous command execution status?

Ans)

33)How to perform the arithmetic operations in Shell script?

Ans)

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34)Write a script (in any scripting language) to find the number of occurrences of the word "Failure" in a file sample.txt and replace all occurrence of "Failure" to "Success".

Ans)

35)Write a script (in any scripting language) to input "n" number of username as parameters and to find it that user is present or not. Output should be "Username - Present"

or "Username - Not Present"

Example: CheckUser.sh User1, User2,User3,....N

Output : User 1 - Present User 2 - Not Present

User 3 - Logged Ans)

36)What is the difference between /etc/hosts and /etc/resolve.conf? What are the types of DNS records?

Ans)

37)Write a single Bash or Python or Perl script to check file system usage on Linux host. send an email to the abc@xyz.com. If one or more file system usage is above the threshold.(Ex.85%) - PWC – Written Test.

Ans)

38)Write a bash or Python or PERL script to list the unique shells in /etc/passwd file and print it string with the number of users using that shell.(Note: shell is the last filed in /etc/passwd file delimited by ":") --> PWC

Ans)

39)There are multiple sub directories under a directory. Ex "/var/tmp/app-code" on a linux host. Those sub directories cobtain one or more XML files. Some of those XML files have an IP address

(EX: 85.) hardcoded.Write a one liner bash command to replace all the occurrences of this IP address wit a variable EX. SIP_Address in all the files it is existing. --> PWC

Ans)

40)Write a single Bash or Python or Perl script to check file system usage on Linux host.send an email to the abc@xyz.com .If one or more file system usage is above the threshold.(Ex.85%)

What is first line written in shell script? What is the meaning of that? If I didn't write that line what will happen? --> PWC

Ans)

41)What is the difference between /etc/hosts and /etc/resolve.conf? What are the types of DNS records? --> PWC

Ans)

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42) How to write a script when the first command is executed successfully then execute another command?

Ans)

```
java -version
if [ $? -eq 0 ]
then
echo "Previous command executed successfully"
else
echo "Previous command executed not successfully "
fi
```

43) Can you tell me the syntax for forloop and while loop?

Ans)

44) How to print shell name?

Ans)

45) How to assign a all the arguments to a single variable?

Ans)

46) How to print the current process id of current shell?

Ans)

47) How to know the file that is entering randomly to my script?

Ans)

48) How to divide two variables in shell script?

Ans)

49) What is trap?

Ans)

50)What is shift in shell script?

Ans)

51) How to run our script in background?

Ans)

52)How to know the running back ground process id ?

Ans)

53) What is \$*, \$\$ and \$@?

Ans)

54) How to print only directories?

Ans)

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55) How to print the directory only started with number?

Ans)

56) How to grep two strings at a time?

Ans)

57) How to grep a string that is started with some string and ends with some string like a.....b ?

Ans)

58) How to print string that starts with a?

Ans)

59) Did you work on arrays?

Ans)

60) How will you give access of your script to a particular user?

Ans)

61) How to access background running scripts and their pid?

Ans)

62) How to run our script in foreground?

Ans)

Search Foobar

Write a Bash script that searches all .c files in the current directory (and its sub-directories recursively) for occurrences of the word "foobar". Your search should be case-sensitive(that applies both to filenames and the word "foobar").

Note that an occurrence of "foobar" only counts as a word if it is either at the beginning of the line or preceded by a non-word-constituent character or similar if it is either at the end of the line or followed by a non-word constituent character. Word constituent characters are letters, digits and underscores. For instance, "int a + foobar()", "#include <foobar.h>" and "foobar*10" are valid occurrence of the word "foobar", while "foobar1000", "foobar", "foobar_" and "1foobaria" are not.

Your script should list all the valid occurrences on the standard output, in the following format:

```
[file_path]:[line_number]:[line_content]
```

If there are multiple occurrence in one line, list the line only once. The order of lines does not matter, they can be sorted in any way.

In order to succeed your script must have exit status equal to 0. An easy way to ensure that is to end it with "; true".

The directory being searched may contain various files with different extensions (or no extension at all).

Example 1

The current directory is as follows:

```
header.h
main.c
bashrc
external_lib
|--foobar.c
|--foobar.h
```


The files have following content:

header.h:

```
int foobar();
```

main.c:

```
#include "header.h"
#include "external_lib/foobar.h"
int main(){
    return foobar() + foobar(); }
```

external_lib/foobar.c:

```
#include "foobar.h"
int foobar() { return 0; }
const char* foobarwoof() { return "WOOF!"; }
```

external_lib/foobar.h:

```
int foobar();
```

bashrc:

```
CXXFLAGS += foobar
```

Your script should write to standard output the following content:

```
./main.c:2:#include "external_lib/foobar.h"
./main.c:4:    return foobar() + foobar();
./external_lib/foobar.c:1:#include "foobar.h"
./external_lib/foobar.c:2:int foobar() { return 0;}
```

Example 2

There is only one file in the current directory, name main.c:

```
int foobar(int n) {
    if (n ==0) return 1;
    if (n ==1) return 1;
    return foobar(n-1) + foobar(n-2);
}
```

Your script should write to standard output the following content:

```
./main.c:1 int foobar(int n) {
./main.c:4     return foobar(n-1) + foobar(n-2);
}
```

Example 3

The directory looks as follows:

```
foo.c
foobar.cx
main.cc
dir.c/ (empty directory)
```

The files have the following content:

```
foo.c
int FooBar(int _foobar_);
```

```
main.cc:
const int foobar = 0;
int main() {
    return foobar;
}
```

In this example , your script should write nothing

Basic Coding Skills

A non-empty array A consisting of N integers is given.

Array A represents a linked list. A list is constructed from this array as follows:

- The first node (the head) is located at the index 0;
- The value of a node located at index K is A[K]
- If the value of a node is -1 then it is the last node of the list
- Otherwise, the successor of a node located at index K is located at index A[K] (you can assume that A[K] is a valid index , that is $0 < A[K] < N$).

For example for array A such that :

```
A[0] = 1
A[1] = 4
A[2] = -1
A[3] = 3
A[4] = 2
```



The following list is constructed :

- The first node (the head) is located at index 0 and has a value of 1;
- The second node is located at index 1 and has a value of 4
- The third node is located at index 4 and has a value of 2;
- The fourth node is located at index 2 and has a value of -1.

Write a function:

```
function solution(A);
```

that given a non-empty array A consisting of N integers returns the length of the list constructed from A in the above manner.
For example , given array A such that

```
A[0] = 1  
A[1] = 4  
A[2] = -1  
A[3] = 3  
A[4] = 2
```

The function should return 4, as explained in the example above.

Assume that:

- *N is an integer within the range [1..200,000];*
- *Each element of array A is an integer within the range [-1 .. N-1];*
- *It will always be possible to construct the list and its length will be finite.*