Bash While Loop Examples - nixCraft nixCraft

> Linux / Unix tutorials for new and seasoned sysadmin || developers Home Linux Shell Scripting Tutorial RSS Donate Search

Bash While Loop Examples

ow do I use bash while loop to repeat specific task under Linux / UNIX operating system? How do I set infinite loops using while statement? Can you provide me the while loop examples?

The bash while loop is a control flow statement that allows code or commands to be executed repeatedly based

on a given condition. For example, run echo command 5 times or read text file line by line or evaluate the options

command1 to command3 will be executed repeatedly till condition is true. The argument for a while loop can be any boolean

expression. Infinite loops occur when the conditional never evaluates to false. Here is the while loop one-liner syntax:

User Information groups • id • lastcomm • last • lid/libuser-lid • logname • members • users • whoami • who • w

could u please give the shell script for printing the fibonocci series and to know if the number is palindrome and also if it an

The script "test" should set variable "filter_mode" to FALSE if there are no lines in the file "switches" and to TRUE if there exists at

Does anyone know how to write a script that echoes three different arguments three times using a loop

WireGuard VPN Alpine • CentOS 8 • Debian 10 • Firewall • Ubuntu 20.04

BASH or KSH on Linux/Unix-like systems

Author: Vivek Gite • Last updated: November 5, 2020 • 26 comments

passed on the command line for a script.

bash while loop syntax

For example following while loop will print welcome 5 times on screen:

x=1; while [x - 1e 5]; do echo "Welcome x times" ((x++)); done

Here is a sample shell code to calculate factorial using while loop:

The syntax is as follows:

x=1 while [\$x -le 5] do echo "Welcome \$x times" x=\$((\$x + 1)) done

To run just type: \$ chmod +x script.sh
\$./script.sh 5

26 comments... add one 1

Nice to see the Bash shell, How do you break out of a loop

Leslie Satenstein • Mar 16, 2008 @ 1:02

nixCraft • Mar 18, 2008 @ 10:22

Cobra • Oct 28, 2009 @ 7:38

Thank you so much .

pranathy • Nov 4, 2009 @ 5:58

Nikki • Jul 20, 2010 @ 16:32

san • Oct 4, 2010 @ 12:32

6659554395fa469ef4ea4a 000011

R nixCraft • Nov 24, 2010 @ 12:00 6659554395fa469ef4ea4a_000012

least one line in the file "switches".

Why do I get "filter_mode: FALSE" eventually?

Elaine • Nov 24, 2010 @ 11:19

shift command to traverse through arguments

does anyone can give an example of a while loop within a loop?

reply link

reply link

reply link

reply link

Georg • Jan 15, 2011 @ 13:38

gg@GeorgSimon:~\$ cat test

6659554395fa469ef4ea4a_000013

gg@GeorgSimon:~\$ cat switches

gg@GeorgSimon:~\$ sh test

vaishali • Aug 24, 2011 @ 4:59

Sanchit Bhatnagar • Sep 7, 2011 @ 5:00

6659554395fa469ef4ea4a_000014

how to write a program in bash for displaying table using until statement? table should be like

And my script:

switch : switch

reply link

3 6 9 12

reply link

plz reply soon....thanks

filter mode : TRUE filter_mode : FALSE

Run as:

reply link

Very useful examples, thank you!

pritam singh • Aug 6, 2010 @ 8:07

is there a break statement, or do you have to use a goto?

Yes there is a break and continue statement, man bash has more information.

you define very nicly all exampls regarding while loop secquence

And here is above code as a bash while one liner:

Requirements

Bash While Loop Examples - nixCraft

The while loop in action on my Ubuntu Linux desktop

While loops are frequently used for reading data line by line from file:

You can easily evaluate the options passed on the command line for a script using while loop: while getopts ae:f:hd:s:qx: option Redirecting user input for a while Loop

How about reading user input from a file? Say you have a file as follows with various IP address: List of crackers IP address: 192.168.3.50#BLOCK:www-2 185.220.101.206#Block:hacker 46.19.141.85#Block:sending too many www requests Here is a bash while loop that read those IP address separated by Internal Field Separator (\$155) to an octothorpe (#): # Script name: block_ips.sh # Set the Internal Field Separator to an octothorpe '#' /sbin/iptables -A INPUT -s "\$ip" -m comment --comment "\$comment" -j DROP

See "Bash Read a File Line By Line" for further information on the read command.

Robin • Sep 27, 2013 @ 15:08

You made a little mistake with the "while" loop.

You have to put a space between bracket and statement. Also, semicolon isn't necessary here.

```
How do I use while as infinite loops?
    nur • Sep 3, 2013 @ 18:01
    for (( i=1; i<=4; i++))
    a=$(( $i + $j ))
echo -n " $a "
    reply link
    #!/bin/bash
      for (( j=0; j<=3; j++ ))
     if [ $flag -eq 0 ];then
    b=$(( $b + $i ))
    echo -n " $b "
    reply link
 Sanchit Bhatnagar • Sep 7, 2011 @ 5:00
#Print multiplication tables from I till X
 while [ $i -le $x ]
 while [ $t -le 10 ]
 str=$str" "$(( t*i ))
x=1; while \ [\ \$x - le\ 10\ ]; \ do\ let \ y=x^*2; \ let \ z=x^*3; \ let \ a=x^*4; \ echo\ \$x\ \$y\ \$z\ \$a\ ; \ sleep\ 1; \ let \ x=x+1; done
reply link
#!/bin/bash
for (( i=1; i<=4; i++))
for (( j=0; j<=3; j++ ))
 a=$(( $i + $j ))
echo -n " $a "
din • Sep 27, 2013 @ 3:21
Hi, anybody can help me with my code below? I got error:
  ./while_do: line 4: [1: command not found
thanks..
while [$x -le 5];
echo "bil $x"
```

```
    man bash

    help while

    help break

    help continue

  If you liked this page, please support my work on Patreon or with a donation.

    RSS feed or Weekly email newsletter.

    Share on Twitter • Facebook • 26 comments... add one ↓

UP NEXT
BASH Shell Test If a File Is Writable or Not
Bash Shell Number Comparison
         File Management cat
                 Firewall Alpine Awall • CentOS 8 • OpenSUSE • RHEL 8 • Ubuntu 16.04 • Ubuntu 18.04 • Ubuntu 20.04
          Network Utilities dig • host • ip • nmap
               OpenVPN CentOS 7 • CentOS 8 • Debian 10 • Debian 8/9 • Ubuntu 18.04 • Ubuntu 20.04
     Processes Management bg • chroot • cron • disown • fg • jobs • killall • kill • pidof • pstree • pwdx • time
                Searching grep • whereis • which
   So here is the correct "while" statement : while [ $x -le 5 ]
      din • Oct 1, 2013 @ 7:59
      Thanks Robin. Sorry for my late reply.
      reply link
Shaifali Mittal • Mar 4, 2014 @ 6:49
I want to print this message block line by line and it will count opening braces n closing braces also...i.e if i use 3 opening braces
then it should print 3 closing braces...
  djghdkjghjghfghhgklfjhgjkdfhgjkfhg
  jdhfgjlsdkhgklsdgjklsdjgkldjg
     message {
   abc_djh = 300
          path_state = normal
         gamil.com
        system data = { 8, 999}
  dgfsdghfjkdhf
3657865894275
```

reply link

Thanks again

Jason • Sep 22, 2014 @ 18:28

NaturalCyborg • Mar 25, 2016 @ 13:38

why the double parenthesis? ans=\$((a + b))

gbviswanadh • Jul 4, 2016 @ 7:15

all files like oneab1606.txt setab.txt

i want ro write zip fill both of them

codes like a ab ac ad

and set??.txt

reply link

Leave a Reply

Post Comment

Use HTML ..., <code>...</code> and <kbd>...</kbd> for code samples.

Next FAQ: Microsoft Windows RDP Audio Driver Not Working

Previous FAQ: Setting Up a CentOS / Red Hat Linux DHCP Client

jagadeesh • Jul 13, 2014 @ 12:23

Thank you! Very easy to understand exemples and effective :)

Thanks man. Very easy to follow and set up. Kudos.

sometimes the condition is inside [] sometimes it is not, why?

Your email address will not be published. Required fields are marked *

I need a Script that wait for 1 hr checking for file ,If file is there it displays elase after 1 hr it has to display .. File not found

Infinite for while can be created with empty expressions, such as:

Conditional while loop exit with break statement

do
statements1 #Executed as long as condition is true and/or, up to a disaster-condition if any.
statements2
if (disaster-condition)
them
break #Adandon the while Lapp.
f1

Early continuation with the continue statement

Recommended readings

See all sample shell script in our bash shell directory

To resume the next iteration of the enclosing WHILE loop use the continue statement as follows:

We learned that bash while loop executes while a condition is true. See the following resource

statement inside the while loop is as follows:

fi
statements3 #While good and, no disaster-condition.
dome

You can do early exit with the break statement inside the whil loop. You can exit from within a WHILE using break. General break

In this example, the break statement will skip the while loop when user enters -1, otherwise it will keep adding two numbers:

Featured Articles
1 30 Cool Open Source Software I Discovered in 2013
2 30 Handy Basis Shelf Allades For Linux / Junix / Marc OS X
3 10p 32 Nmap Command Examples For Linux Sys*Network Admins
4 25 PHP Security Best Practices For Linux Sys Admins
5 30 Linux System Monitoring Tools Every SysAdmin Should Know
6 40 Linux Sever Hardening Security Tips
7 Linux 25 Iptables Netfliter Firewall Examples For New SysAdmins
8 10p 20 OpenSSH Server Best Security Practices
9 10p 25 Nignax Web Server Best Security Practices
10 My 10 UNIX Command Line Missikes

©2020 nixCraft • Privacy • ToS • Contact/Email • Search • Sponsored by Linode