BASH CASE

1) Simple scenario to demonstrate the use of the case statement

Step1: Create a Bash Script

```
        ☑ root@f304ea52daec59c:~#
        —
        □
        X

        root@f304ea52daec59c:~## touch bash1.sh
        —
        □
        X

        root@f304ea52daec59c:~## touch bash1.sh
        —
        □
        X

        chmod: missing operand after 'bash1.sh'
        —
        □
        X

        Try 'chmod --help' for more information.
        —
        □
        X

        root@f304ea52daec59c:~## chmod +x bash1.sh
        Dash1.sh
        —

        root@f304ea52daec59c:~## vi bash1.sh
        —
        □
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root∯f304ea52daec59c:~# ./bash1.sh
Do you know java programming?
yes/no?in
it's easy.let's start learning from javatpoint.
```

Combined scenario where there is also a default case when no previous matched case is found.

Step1: Create a Bash Script

```
      ⊙ root@f304ea52daec59c: ~
      —
      □
      X

      root@f304ea52daec59c: ~# touch bash2.sh
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```

Step 2: Write the script in the editor.

```
© most@f3d4ee52ct.~

echo "which operating system are you using?"
echo "windows; android_chrome,linux,others?"

read p "type your os name:" os

case $so in

windows| Windows)

ccho " that's common. you should try something new."

echo

ccho " this is my favourite.it has lots of applications."

echo

Chrome| chrome)

echo "coollili it's for pro users. amazing choice."

echo

ccho " you might be serious about security!"

echo " sounds interesting. i will try that."

echo

secho "sounds interesting. i will try that."
```

Step 3: Run the script

```
root@f304ea52daec59c:~# ./bash2.sh
which operating system are you using?
windows, android, chrome, linux, others?
type your os name:windows
that's common. you should try something new.
```

BASH FOR LOOP

3) Basic For loop



Step 2: Write the script in the editor.

```
O root@f304ea52daec59: ~

learn="Start learning from javatpoint"

for learn in $Learn

do

echo $learn

done
echo "thank you"
```

```
root@f304ea52daec59c:~# ./for1.sh
Start
Learning
from
javatpoint
thank you
```

4) For Loop to Read a Range

Step1: Create a Bash Script

```
root@f384ea5Zdaec59c:~# touch for2.sh
root@f384ea5Zdaec59c:~# chmod +x for2.sh
root@f384ea5Zdaec59c:~# v1 for2.sh
```

Step 2: Write the script in the editor.

```
      ● root@f304ea52daec59c:--
      -
      □
      X

      for num in {1..10}
      ...
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      ...
      ...</td
```

Step 3: Run the script

```
root@f384ea52daec59c:~# ./for2.sh
1
2
3
4
5
6
7
8
9
9
10
series of number from 1 to 18.
```

5) For Loop to Read a Range with Increment.

Step1: Create a Bash Script

Step 2: Write the script in the editor.

```
      ☑ root@f304e52daeC59::~
      — ☑ X

      for num in {1...10...1}
      do

      echo $num
      done
```

Step 3: Run the script

```
root@f304ea52daec59c:~# ./for3.sh
1
2
3
4
5
6
7
8
9
```

6) For Loop to Read a Range with Decrement

Step1: Create a Bash Script

```
      ☑ root@f304ea52daec59c; ~
      —
      □
      ×

      root@f304ea52daec59c: ~# touch for3.sh
      root@f304ea52daec59c: ~# chmod +x for3.sh

      root@f304ea52daec59c: ~# v1_for3.sh
      root@f304ea52daec59c: ~# v1_for3.sh
```

Step 2: Write the script in the editor.

```
      ▼ root@f304ea52daec59: ~
      —
      □
      X

      for num in (1,.10,.1)
      ...
      ...
      ...
      ...
      ...
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      ...
      ...</
```

Step 3: Run the script

```
root@f304ea52daec59c:~# ./for3.sh
10
9
8
7
6
5
4
3
2
1
```

7) For Loop to Read Array Variables

Step1: Create a Bash Script

```
Proot@f304ea52daec59c:~# touch for5.sh
root@f304ea52daec59c:~# touch for5.sh
root@f304ea52daec59c:~# v.for5.sh
root@f304ea52daec59c:~# v.for5.sh
root@f304ea52daec59c:~# v.for5.sh
/for5.sh: line i: syntax error near unexpected token `)'
./for5.sh: line i: `arr="(welcome""to""javatpoint")'
root@f304ea52daec59c:~# v.for5.sh
root@f304ea52daec59c:~# v.for5.sh
./for5.sh: line 2: `gratax error near unexpected token `in"${arr[@]}"'
./for5.sh: line 2: `for i in"${arr[@]}"'
root@f304ea52daec59c:~# v.for5.sh
```

Step 2: Write the script in the editor.

```
        ...
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        ...
        ...</t
```

Step 3: Run the script

```
root@f304ea52daec59c:∽# ./for5.sh
welcometojavatpoint
```

8) For Loop to Read white spaces in String as word separators.

Step1: Create a Bash Script

```
root@f304ea52daec59:-# touch for6.sh
root@f304ea52daec59:-# chmod +x for6.sh
root@f304ea52daec59:-# v1 for6.sh
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f304es52dsec59c:~# ./for6.sh
Let's
start
Learning
from
gavatpoint
```

9) For Loop to Read each line in String as a word

Step1: Create a Bash Script

```
      ☑ root@f304es52daec59c:-# touch for7.sh

      root@f336es52daec59c:-# v1 for7.sh

      root@f36es52daec59c:-# chmod +x for7.sh
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f304ea52daec59c:~# ./for7.sh
Let's start
learning from
javatpoint.
```

10) For Loop to Read Three-expression

Step1: Create a Bash Script

```
      1. root@f304ea52daec59c:-# touch fon8.sh
      -
      □
      ×

      root@f304ea52daec59c:-# touch fon8.sh
      -
      oot@f304ea52daec59c:-# vi. fon8.sh
```

Step 2: Write the script in the editor.

```
      O root@f304es52daec59c:~
      −
      □
      X

      for ((i=i; i<=18; i++))</td>
      do
      echo "$i"

      don_0
      echo "$i"
      Image: control of the control of
```

Step 3: Run the script

```
rot@f384ea52daec59c:~# ./for8.sh
1
2
3
4
5
6
7
8
9
```

11) For Loop with a Break Statement

Step1: Create a Bash Script

```
      ⊙ root@f304es52dsec59:~
      —
      □
      X

      root@f304es52dsec59:~
      ± touch for9.sh
      >

      root@f304es52dsec59:-
      ± thouch for9.sh
      >

      root@f304es52dsec59:-
      ± touch for9.sh
      >
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
rot@f384ea52daec59c:~# ./for9.sh
2
4
6
8
10
12
14
16
18
```

12) For Loop with a Continue Statement

Step1: Create a Bash Script

```
      1. root@f304ea52daec59c:-# touch for10.sh
      — □ ×

      root@f304ea52daec59c:-# touch for10.sh
      — □ ×

      root@f304ea52daec59c:-# tolch for10.sh
      — □ ×
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f384eu52duec59c:~# ./for10.sh
1
2
3
4
5
16
17
18
19
```

13) Infinite Bash For Loop

Step1: Create a Bash Script

```
      ☑ not@f304es52daec59c:~#
      + □
      X

      not@f304es52daec59c:~# touch for11.sh
      + □
      X

      not@f304es52daec59c:~# thmod +x for11.sh
      + □
      X

      not@f304es52daec59c:~# v1 for11.sh
      + □
      X
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f304es52dsec59c:~# ./for11.sh

current number: 1

current number: 2

current number: 3

current number: 4

current number: 6

current number: 6

current number: 7

current number: 9

current number: 10

current number: 10

current number: 12

current number: 13

current number: 13
```

BASH WHILE LOOP

14) While Loop with Single Condition

```
      № root@f304es52dsec59c:-# touch while1.sh
      — □ ×

      root@f304es52dsec59c:-# touch while1.sh
      — □ ×
```

Step 2: Write the script in the editor.

```
© root@f3D4es52daec59c:~

— □ ×

read - p "Enter starting number:" snum

read - p "Enter ending number:" enum

while [[ $snum -le $enum ]];

do

echo $snum
((snum++))

done
echo "This is the sequence that you wanted."
```

```
root@f304ea52daec59c:~# ./whilei.sh
Enter starting number:10
1
2
3
4
5
6
7
7
8
9
10
This is the sequence that you wanted.
```

15) While Loop with Multiple Conditions

Step1: Create a Bash Script

```
root@f384ea52daec59c:~# touch while2.sh
root@f384ea52daec59c:~# vi while2.sh
```

Step 2: Write the script in the editor.

```
Tool@f304es52daec59:~

- □ X

read = p "Enter starting number:" snum

read - p "Enter ending number:" snum

while [{ $snum - tt $snum ||_ $snum == $snum }];

do

echo $snum

((snum++))

done
echo "This is the sequence that you wanted."
```

Step 3: Run the script

```
root@f304ea52daec59c:-# ./while2.sh
Enter starting number:38
2
3
4
5
6
7
8
9
10
11
12
13
14
15
10
17
18
19
20
21
22
23
24
25
26
27
28
29
30
This is the sequence that you wanted.
```

16) Infinite While Loop

```
      ▼ root@f304es52dsec59c:~
      —
      □
      ×

      root@f304es52dsec59c:~# touch while4.sh
      ^
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```

Step 2: Write the script in the editor.

```
© mot@f304es52daec59c:~

white:

do

echo "Velcome to javatpoint."

don_
```

```
Content to javatpoint.

Welcome to javatpoint.
```

17) Infinite While Loop

```
      • root@f304ea52daec59c:~# touch while4.sh
      ^

      • root@f304ea52daec59c:~# touch while4.sh
      ^

      • root@f304ea52daec59c:~# v1 while4.sh
      ^

      • root@f304ea52daec59c:~# v1 while4.sh
      ^
```

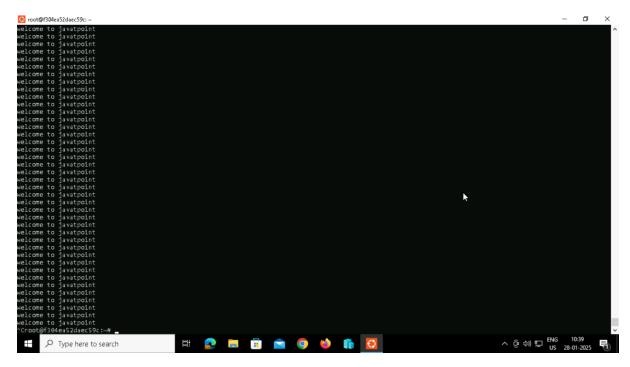
Step 2: Write the script in the editor.

```
    root@f304ea52daec59c: ~
    while true

do
        echo "welcome to javatpoint"

done
```

Step 3: Run the script



18) While Loop with a Break Statement

Step1: Create a Bash Script

```
      ☑ root@f304es52daec59c:~#
      touc@f304es52daec59c:~#
      touc@f304es52daec59c:~#
      touch whiles.sh

      root@f304es52daec59c:~#
      chmod +x whiles.sh
      foot@f304es52daec59c:~#
      vi whiles.sh
```

Step 2: Write the script in the editor.

Step 3: Run the script

19) While Loop with a Continue Statement

```
      ● root@f304es52daec59c:~# touch while6.sh
      /**

      root@f304es52daec59c:~# touch while6.sh
      /**

      root@f304es52daec59c:~# touch while6.sh
      /**

      root@f304es52daec59c:~# touch while6.sh
      /**
```

Step 2: Write the script in the editor.

```
root@f304es52daec59c:~# ./while6.sh

current number:1

current number:3

current number:3

current number:6

current number:6

current number:8

current number:9

current number:10

c
```

20) While Loop with C-Style.

Step1: Create a Bash Script

```
      ● root@f304es52dsec59c:~
      -
      □
      X

      root@f304es52dsec59c:~## touch while7.sh
      /
      x

      root@f304es52dsec59c:~## chmod +x while7.sh
      /
      x

      root@f304es52dsec59c:~## thubile7.sh
      x
      x
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f384ea52daec59c:~# ./while7.sh
1
2
3
4
5
6
7
8
9
```

BASH UNTIL

21) Until loop which will print series of numbers from 1 to 10

```
rootg#1944e352daec59c:~# touch untlil.$h
rootg#1944e352daec59c:~# thmod untlil.$h
chmod: missing operand after 'untlil.$h'
Try 'chmod --help' for more information.
rootg#1944e352daec59c:~# chmod +x untlil.$h
rootg#1944e352daec59c:~# vi untlil.$h
```

Step 2: Write the script in the editor.

```
      I = 1
      ...

      until [ $i - gt 10 ]
      ...

      do
      ...

      acho $i
      ...

      ((1++))
      ...
```

Step 3: Run the script

```
root@f304ea52daec59c:~# ./until1.sh
1
2
3
4
5
6
7
7
8
9
```

22) Multiple conditions in an expression

Step1: Create a Bash Script

```
      № root@f304es52dsec59c:~
      —
      ✓

      root@f304es52dsec59c:~
      # touch until2.sh

      root@f304es52dsec59c:~
      # touch until2.sh

      root@f304es52dsec59c:~
      # vi until2.sh
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f304ea52daec59c:~# ./until2.sh
a = 1 &b = 0
a = 2 &b = 1
a = 3 &b = 2
a = 4 &b = 3
a = 5 &b = 4
```

BASH STRING

23) Equal Operator

Step1: Create a Bash Script

```
      C root@f304es52daec59c: ~
      —
      □
      X

      root@f304es52daec59c: ~## touch string1.sh
      _
      _

      root@f304es52daec59c: ~## chmod +x string1.sh
      _
      _

      root@f304es52daec59c: ~## wi string1.sh
      _
      _
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f304ea52daec59c:~# ./stringĭ.sh
strings are not equal.
```

24) Not Equal Operator

```
root@f304ea52daec59c:~# touch string2.sh
root@f304ea52daec59c:~# chmod +x string2.sh
cont@f304ea52daec59c:~# chmod +x string2.sh
```

Step 2: Write the script in the editor.

```
© mot@f3D4es52daec59t:~

— □ ×

strl="Welcometojsvatpoint"

strl="strl="sstr2];

then

echo "both the strings are equal."

else

echo "strings are not equal."
```

```
root@f304ea52daec59c:~# ./string2.sh
both the strings are equal.
root@f304ea52daec59c:∼# _
```

25) Less than Operator

Step1: Create a Bash Script

```
      ⊙ root@f304ea52daec59c:~#
      —
      □
      X

      root@f304ea52daec59c:~# touch string3.sh
      root@f304ea52daec59c:~# chmod +X string3.sh

      root@f304ea52daec59c:~# vi string3.sh
      string3.sh
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
rootǧf304ea52daec59c:~# ./stringš.sh
WelcommoJavatpoint is not less then Javatpoint.
```

26) Greater than Operator

Step1: Create a Bash Script

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f304ea52daec59c:~# ./string4.sh
WelcometoJavatpoint is greater then Javatpoint.
```

27) To check if the string length is greater than Zero:

Step 2: Write the script in the editor.



Step 3: Run the script

```
root@f304ea52daec59c:-# ./string5.sh
String is not empty
```

28) To check if the string length is equal to Zero

Step1: Create a Bash Script

```
        € root@f304ea52daec59c:~
        — □ ×

        root@f304ea52daec59c:~## touch string6.sh
        — □ ×

        root@f304ea52daec59c:~## chmod +x string6.sh
        — □ ×
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@304ea52daec59c:-# ./string6.sh
String is empty
```

BASH FIND STRING

29) The simplest way to calculate the length of a string is to use '#' symbol.

Step1: Create a Bash Script

```
      ⊙ root@f304es52dsec59c:~
      —
      □
      ×

      root@f304es52dsec59c:~## touch fstring1.sh
      /
      /
      /
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```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f304ea52daec59:-# ./fstringi.sh
length of 'Welcome to javatpoint' is 21
```

30) Calculate the length of a string is to use `expr` command with the 'length' keyword

Step 2: Write the script in the editor.

Step 3: Run the script

```
oot@f304ea52daec59c:~# ./fstring2.sh
ength of 'Welcome to javatpoint' is 21
     31) Use `expr "$str": '.*'` to find the length of a string
Step1: Create a Bash Script
oot@f304ea52daec59c: ~
     304ea52daec59c:~# touch fstring3.sh
304ea52daec59c:~# chmod +x fstring3.sh
Step 2: Write the script in the editor.
oot@f304ea52daec59c: ~
Step 3: Run the script
root@f304ea52daec59c:~# ./fstring3.sh
length of 'Welcome to javatpoint' is 21
     32) Use `wc` command to find the length of a string
Step1: Create a Bash Script
Step 2: Write the script in the editor.
Step 3: Run the script
root@f304ea52daec59c:~# ./fstring4.sh
Length of 'Welcome to Javatpoint' is 22
     33) Use `awk` command to find the length of a string.
Step1: Create a Bash Script
oot@f304ea52daec59c: ~
Step 2: Write the script in the editor.
```

```
O root@f304es52daec59c:-

$tr="Welcome to Javatpoint"
length='echo $str |awk '(print length)'`

acho "Length of '$str' is $length"
```

Step 3: Run the script

root@ff384ea52daec59c:~# ./fstring5.sh Length of 'Welcome to Javatpoint' is 21

BASH SPLIT STRING

34) Bash Split String by Space

```
root@f304ea52daec59c:~# touch split1.sh
root@f304ea52daec59c:~# chmod +x split1.sh
root@f304ea52daec59c:~# vi split1.sh
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f304ea52daec59c:~# ./split1.sh
Enter any string separated by space: i am ankita
i
am
ankita
```

35) Bash Split String by Symbol

Step1: Create a Bash Script

```
      € root@f304es52daec59c:--
      -
      □
      X

      root@f304es52daec59c:-# touch split2.sh
      -
      □
      X

      root@f304es52daec59c:-# touch split2.sh
      -
      □
      X

      root@f324es52daec59c:-# vl split2.sh
      -
      -
      □
      X
```

Step 2: Write the script in the editor.

```
    cot@f304es52dsec59:~
    read _r "Enter Name, State and Age separated by a comma: " entry #reading string value
IFS="," #setting comma as delimiter
read -a strant <<<"sentry #reading str as an array as tokens separated by IFS
echo "Name : $(strant[0]) "
echo "State : $(strant[1]) "
echo "Age : $(strant[1]) "
echo "Age : $(strant[2])"
</pre>
```

Step 3: Run the script

```
root@f304ea52daec59c:~# ./split2.sh
Enter Name, State and Age separated by a comma: ankita , kerala , 22
Name : ankita
State : kerala
Age : 22
```

36) Bash Split String by Symbol

Step1: Create a Bash Script

```
      ? root@f304ea52daec59c:~# touch split3.sh

      root@f304ea52daec59c:~# touch split3.sh

      root@f304ea52daec59c:~# chmod +x split3.sh

      root@f304ea52daec59c:-# vl split3.sh
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f304ea52daec59c:~# ./split3.sh
Enter any string separated by colon(:) i am ankita: from bangalore: employee in ust:
i am ankita
from bangalore
employee in ust
```

37) Bash Split String by another string

```
② root@f304ea52daec59c:~# touch split4.sh
root@f304ea52daec59c:~# touch split4.sh
root@f304ea52daec59c:~# thouch split4.sh
root@f304ea52daec59c:~# thouch split4.sh
```

Step 2: Write the script in the editor.

```
root@f304es5Zdaec59c:-# ./split4.sh
declare a array=([0]="We" [1]="Welcome" [2]="You" [3]="On" [4]="Javatpoint")
```

38) Bash Split String using Trim Command

Step1: Create a Bash Script

```
      • root@f304ea52daec59c:~# touch split5.sh
      −
      □
      ×

      root@f364ea52daec59c:~# chmod +x split5.sh
      ^

      ∧

      root@f364ea52daec59c:~# vi split5.sh

      ×
      ×
      ×
      ×
      ×
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      ×
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      ×
```

Step 2: Write the script in the editor.

Step 3: Run the script

```
root@f384ea52daec59c:~# ./split5.sh
we
welcome
you
on
javatpoint.
```

BASH SUBSTRING

39) To Extract till Specific Characters from Starting

Step1: Create a Bash Script

```
    root@f304ea52daec59c: 
    root@f304ea52daec59c: 
    root@f304ea52daec59c: 
    touch subl.sh
chmod: missing operand after 'subl.sh'
Try 'chmod --help' for more information.
root@f304ea52daec59c: 
    touch f304ea52daec59c: 
    touch f304ea5
```

Step 2: Write the script in the editor

Step 3: Run the script

```
root@f304ea52daec59c:-# ./sub1.sh
String: We welcome you on Javatpoint.
Total characters in a String: 29
Substring: We welcome
Total characters in Substring: 10
```

40) To Extract from Specific Character onwards

```
root@f304ea52daec59c:~# touch sub2.sh
root@f304ea52daec59c:~# chmod +x sub2.sh
root@f304ea52daec59c:~# vi sub2.sh
```

Step 2: Write the script in the editor



Step 3: Run the script

root@f304ea52daec59c:~# ./sub2.sh you on Javatpoint.

41) To Extract a Single Character

Step1: Create a Bash Script



Step 2: Write the script in the editor



Step 3: Run the script

```
        № not@f30Mes52daec59; ~
        —
        □
        X

        root@f30Mes52daec59c; ~# touch sub3.sh
        ^
        not@f30Mes52daec59c; ~# chmod +x sub3.sh
        ^

        root@f30Mes52daec59c; ~# through sub3.sh
        ^
        not@f30Mes52daec59c; ~# through sub3.sh
        ^
```

42) To Extract the specific characters from last

Step1: Create a Bash Script

```
      Selectroot@f304ea52daec59c:~//representation
      —
      □
      X

      root@f304ea52daec59c:~//representation
      A
      Noot@f304ea52daec59c:~//representation
      Noot@f304ea52daec59c:~//representation
```

Step 2: Write the script in the editor



Step 3: Run the script

root@f304ea52daec59c:~# ./sub4.sh Javarpoint

BASH CONCATENATE

43) Write Variables Side by Side

Step1: Create a Bash Script



Step 2: Write the script in the editor



Step 3: Run the script

```
root∯f304ea52daec59c:~# ./cat1.sh
We welcome you on Javatpoint.
```

44) Using Double Quotes

Step1: Create a Bash Script

```
root@f304ea52daec59c:~# touch cat2.sh
root@f304ea52daec59c:~# chmod +x cat2.sh
root@f304ea52daec59c:~# vi cat2.sh
```

Step 2: Write the script in the editor

Step 3: Run the script

```
root@f304ea52daec59c:~# ./cat2.sh
We welcome you on Javatpoint.
-ont-6f304e37daec50:.w
```

45) Using Append Operator with Loop

Step1: Create a Bash Script

```
      ☑ root@f304ea52daec59c:~#
      —
      □
      X

      mont@f304ea52daec59c:~# touch cat3.sh
      ^

      not@f304ea52daec59c:~# thmod +x cat3.sh
      ^
```

Step 2: Write the script in the editor

Step 3: Run the script

```
root@f304ea52daec59c:~# ./cat3.sh
Printing the name of the programming languages
java python C C++
```

46) Using the Printf Function

```
      ▼ root@f304ea52daec59c:~# touch cat4.sh

      root@f304ea52daec59c:~# tomod +x cat4.sh

      root@f304ea52daec59c:~# vt cat4.sh
```

Step 2: Write the script in the editor

```
© root@f304ea52daec59: ~

str="Velcome"

yrintf - vnew_str "$str to Javatpoint."

scho $new_str_"
```

Step 3: Run the script

```
47) Using Literal Strings
Step1: Create a Bash Script
oot@f304ea52daec59c: ~
Step 2: Write the script in the editor
Step 3: Run the script
48) Using Underscore
Step1: Create a Bash Script
Step 2: Write the script in the editor
oot@f304ea52daec59c: ~
Step 3: Run the script
root@f304ea52daec59c:~# ./cat6.sh
Hello_World!
49) Using any Character
Step1: Create a Bash Script
Step 2: Write the script in the editor
Step 3: Run the script
```

BASH FUNCTIONS

50) Function Name

```
© root@f304ea52daec59c:~# touch function1.sh
root@f304ea52daec59c:~# touch function1.sh
root@f304ea52daec59c:~# chmod +X function1.sh
chmod: cannot access 'function1.sh': No such file or directory
root@f304ea52daec59c:~# chmod +X function1.sh
root@f304ea52daec59c:~# v1 function1.sh
root@f304ea52daec59c:~# v1 function1.sh
vot@f304ea52daec59c:~# /function1.sh
Welcome to Javatpoint.
```

Step 2: Write the script in the editor

Step 3: Run the script

51) Function Name

Step1: Create a Bash Script

```
orot@f304ea52daec59c:~# touch function2.sh
root@f304ea52daec59c:~# touch function2.sh
root@f304ea52daec59c:~# vi function2.sh
root@f304ea52daec59c:~# vi function2.sh
root@f304ea52daec59c:~# vi function2.sh
velcome to Javatpoint.
```

Step 2: Write the script in the editor

```
© root@f3Odes52daec59c:~

— □ ×

function JTP {
    echo 'Welcome to Javatpoint.'
}

JTP
```

Step 3: Run the script

```
    root@f304ea52daec59c:-# touch function2.sh
    root@f304ea52daec59c:-# touch function2.sh
    root@f304ea52daec59c:-# thund+xx function2.sh
    root@f304ea52daec59c:-# vi function2.sh
    root@f304ea52daec59c:-# -/function2.sh
    welcome to Javatpoint.
```

52) Script to pass and access arguments

```
Toot@f304ea52daec59c:-# touch function3.sh
root@f304ea52daec59c:-# thouch function3.sh
root@f304ea52daec59c:-# vi function3.sh
root@f304ea52daec59c:-# vi function3.sh
root@f304ea52daec59c:-# vi function3.sh
root@f304ea52daec59c:-# vi function3.sh
vewelcomeyouon3avatpoint.

root@f304ea52daec59c:-# vi function3.sh
vewelcomeyouon3avatpoint.
```

Step 2: Write the script in the editor

```
cord@f304es52daec59c:~
function_arguments()
{
    echo $1
    echo $2
    echo $2
    echo $4
    echo $5
}
function_arguments "Ve"_"welcome" "you" "on" "Javatpoint."
```

```
    root@f304ea52daec59c:~# touch function3.sh
    root@f304ea52daec59c:-# touch function3.sh
    root@f304ea52daec59c:-# vi function3.sh
    wewelcomeyouonJavatpoint.

root@f304ea52daec59c:-# vi function3.sh
    root@f304ea52daec59c:-
```

53) Variable Scope

Step1: Create a Bash Script

```
    root@f304ea52daec59c:-# touch function4.sh
    root@f304ea52daec59c:-# touch function4.sh
    root@f304ea52daec59c:-# wi function4.sh
    root@f304ea52daec59c:-# vi function4.sh
    root@f304ea52daec59c:-# ./function4.sh
    Before Executing the Function
v1 is A.
v2 is B.
Inside Function
v1 is C.
v2 is D.
After Executing the Function
v1 is C.
v2 is D.
After Executing the Function
v1 is C.
v2 is D.
After Executing the Function
v1 is C.
v2 is D.
After Executing the Function
v1 is C.
v2 is D.
After Executing the Function
v1 is C.
v2 is D.
```

Step 2: Write the script in the editor

```
V1='A'
v2='B'

| local v1='C'
v2='D'
| echo "Niside Function"
| echo "v1 is $v1."
| echo "v2 is $v2."

| cho "v2 is $v2."

| representation |
```

Step 3: Run the script

```
Proot@f304ea52daec59c:-# touch function4.sh
root@f304ea52daec59c:-# touch function4.sh
root@f304ea52daec59c:-# vi function4.sh
root@f304ea52daec59c:-# vi function4.sh
Before Executing the Function
vi is A.
v2 is B.
Inside Function
vi is C.
v2 is D.
After Executing the Function
vi is C.
v2 is D.
After Executing the Function
vi is C.
v2 is D.
```

54) Return Values

Step1: Create a Bash Script

Step 2: Write the script in the editor

```
    root@f304ea52daec59c; ~
    rort_it () {
        echo Hello $1
        return 5
}
    print_it Use
    print_it Reader
echo The previous function returned a value of $≥
```

Step 3: Run the script

```
© root@f304ea52daec59c:-# touch function5.sh
root@f304ea52daec59c:-# thmod +x function5.sh
root@f304ea52daec59c:-# vi function5.sh
root@f304ea52daec59c:-# vi function5.sh
reot@f304ea52daec59c:-# vi function5.sh
reot@f304ea52daec59c:-# vi function5.sh
reot@f304ea52daec59c:-# vi function5.sh
```

55) Return Values

Step1: Create a Bash Script

```
out@#304es5Zdaec59c: --
root@#304es5Zdaec59c: --
/function6.sh
Velcome to Javatpoint.
```

Step 2: Write the script in the editor

Step 3: Run the script

```
© root@f304es52daec59c:~# touch function6.sh
root@f304es52daec59c:~# touch function6.sh
root@f304es52daec59c:~# vi function6.sh
root@f304es52daec59c:~# vi function6.sh
root@f304es52daec59c:~# /function6.sh
```

56) Overriding Commands

```
        ⊙ root@f304es52daec59c:~#
        — ☐ X

        root@f3304es52daec59c:~# touch function7.sh
        — ☐ X

        root@f3304es52daec59c:~# thouch function7.sh
        — ☐ X

        root@f3304es52daec59c:-# vf function7.sh
        — ☐ X

        root@f3304es52daec59c:-# vfunction7.sh
        — ☐ X

        [01-29 12:31:33] : welcome to Javatpoint.
        — ☐ X
```

Step 2: Write the script in the editor

BASH ARRAY

57) Reference Elements

Step1: Create a Bash Script

```
      ○ root@f304ea52daec59c:~
      —
      □

      root@f304ea52daec59c:~# touch annay1.sh
      —
      □

      root@f304ea52daec59c:~# v1 annay1.sh
      —
      □

      root@f304ea52daec59c:~# v/annay1.sh
      —
      □

      root@f304ea52daec59c:~# v1 annay1.sh
      □
      □

      root@f304ea52daec59c:~# v1 annay1.sh
      □
      □

      Davatpoint
      □
      □
```

Step 2: Write the script in the editor

```
color=foldea52daec59c: ~

declare -a example_array=( "Welcome" "To"_"Javatpoint" )

#printing the element with index of 2
echo $(example_array[2])
```

Step 3: Run the script

```
oot@f304es52daec59c:~# touch array1.sh
root@f304es52daec59c:~# touch array1.sh
root@f304es52daec59c:~# thmod +x array1.sh
root@f304ea52daec59c:~# vi array1.sh
root@f304ea52daec59c:~# vi array1.sh
root@f304ea52daec59c:~# vi array1.sh
root@f304ea52daec59c:~# vi array1.sh
Javatpoint
```

58) Reference Elements

```
      ⊙ root@f304ea52daec59c: →
      —
      □
      X

      root@f304ea52daec59c: →# touch array1.sh
      —
      □
      X

      root@f304ea52daec59c: →# touch array2.sh
      —
      □
      X

      root@f304ea52daec59c: →# v1 array2.sh
      —
      →
      Array2.sh

      velcomeToTavatpoint
      VelcomeToTavatpoint
      VelcomeToTavatpoint
```

Step 2: Write the script in the editor

Step 3: Run the script

```
      ☑ root@f304ea52daec59c:-# touch array1.sh

      root@f364ea52daec59c:-# touch array2.sh

      root@f364ea52daec59c:-# touch array2.sh

      root@f364ea52daec59c:-# v1 array2.sh

      root@f364ea52daec59c:-# v1 array2.sh

      welcomeToJavatpoint
```

59) Printing the Keys of an Array

Step1: Create a Bash Script

Step 2: Write the script in the editor

Step 3: Run the script

60) Finding Array Length

Step1: Create a Bash Script

```
        ▼ root@f304ea52daec59c:~# touch array4.sh

        root@f304ea52daec59c:~# tomod +x array4.sh

        root@f304ea52daec59c:~# v1. array4.sh

        root@f304ea52daec59c:~# v1. array4.sh

        The array contains 1 elements

        root@f304ea52daec59c:~# v1. array4.sh

        The array contains 1 elements

        root@f304ea52daec59c:~# v1. array4.sh

        root@f304ea52daec59c:~# v2. array4.sh

        The array contains 3 elements
```

Step 2: Write the script in the editor

```
© root@f3D4es52daec59c: ~

declare -a example_array=( "Welcome" "To"_"Javatpoint" )

#Printing Array Length
#cho "The array contains ${#example_array[@]} elements"
```

Step 3: Run the script

```
        ★ oot@f304ea52daec59c:~
        —
        □
        ×

        root@f304ea52daec59c:~# touch array4.sh
        + x array4.sh
```

61) Loop through the Array

```
    root@f304ea52daec59c:~# touch array5.sh
    root@f304ea52daec59c:~# tolmod +x array5.sh
    root@f304ea52daec59c:~# vlarray5.sh
    root@f304ea52daec59c:~# vlarray5.sh
    root@f304ea52daec59c:~# vlarray5.sh
    The key value of element Welcome is 0
    The key value of element Tols 1
    The key value of element Javatpoint is 2
```

Step 2: Write the script in the editor

```
    root@f304es52daec59c: ~
    declare -a example_array=( "Welcome" "To"_"Javatpoint" )

#Array Loop
for 1 in "${!example_array[@]}"
do
    acho The key value of element "${example_array[$1]}" is "$i"
done
```

Step 3: Run the script

62) Loop through the Array

Step1: Create a Bash Script

```
        ▼ root@f304es52daec59c:~# touch array6.sh
        — □ ×

        root@f304es52daec59c:~# touch array6.sh
        — □ ×

        root@f304es52daec59c:~# vi array6.sh
        Foot@f304es52daec59c:~# vi array6.sh

        root@f304es52daec59c:~# ./array6.sh
        Foot@f304es52daec59c:~# ./array6.sh

        1 TO
        2 Vel.come

        2 Javatpoint
        — □ ×
```

Step 2: Write the script in the editor

```
    root@f304es52daec59c:~

declare -a example_array=( "Velcome" "To"_"Javatpoint" )

#Length of the Array
lengths{f(example_array[@])
# #Array Loop
for ((i=0; i < ${length}; i++ ))
do
acho $i ${example_array[$i]}
do
acho $i ${example_array[$i ${ex
```

Step 3: Run the script

```
        ⊙ root@f304ea52daec59c:~# touch array6.sh
        — □ ×

        root@f304ea52daec59c:~# touch array6.sh
        — □ ×

        root@f304ea52daec59c:~# vi array6.sh
        — □ ×

        root@f304ea52daec59c:~# vi array6.sh
        → □ ×

        0 Welcome
        1 To

        2 Javatpoint
        — □ ×
```

63) Adding Elements to an Array

```
      € root@f304es52daec59c:~
      − ♂ ×

      root@f304es52daec59c:~# touch array7.sh
      ^

      root@f304es52daec59c:~# vt. array7.sh
      ^
```

Step 2: Write the script in the editor



```
routgissetes zoret settem vt. annayv.sn
rootgis94es52des59c:+# ./arnayv.sh
Java Python PHP HTML JavaScript
```

64) Adding Elements to an Array

Step1: Create a Bash Script

```
      ☑ root@f304ea52daec59c:~
      —
      □
      X

      root@f304ea52daec59c:~# touch array8.sh
      root@f304ea52daec59c:~# chmod +x array8.sh

      root@f304ea52daec59c:~# v1 array8.sh
```

Step 2: Write the script in the editor

Step 3: Run the script

```
root@f304ea52daec59c:~# ./array@.sh
Java Python PHP JavaScript CSS SQL
```

65) Updating Array Element

Step1: Create a Bash Script

```
      • root@f304es52daec59c:-# touch array9.sh
      ^

      • root@f304es52daec59c:-# thmod +x array9.sh
      ^

      • root@f304es52daec59c:-# xi array9.sh
      ^
```

Step 2: Write the script in the editor

```
    root@f304es52daec59:-
    declare -a example_array=( "Ve" "welcome" "you" "on"_"SSSIT" )

#Updating the Array Element
example_array(4]=Javatpoint
# #Printig all the elements of the Array
expo 5{example array(@)}
```

Step 3: Run the script

```
rou.gr.somepazuaecesu...an vi alvays.sn
root@f304ea52daec59c..an /arnay9.sh
We welcome you on Javatpoint
```

66) Deleting an Element from an Array

```
© root@f304ea52daec59c:--# touch array10.sh
root@f304ea52daec59c:--# touch array10.sh
root@f304ea52daec59c:--# vi array10.sh
root@f304ea52daec59c:--# vi array10.sh
```

Step 2: Write the script in the editor

```
② root@f304ea52daec59c:-
declare -a example_array=( "Java" "Python" "HTML" "CSS"_"JavaScript" )

#Removing the element
unset example_array[i]
# #Printing all the elements after deletion
ecto "${cxample_array[@]}"
```

Step 3: Run the script

```
rootgijoeteaazdateaac.ni v. arrayte.sii
rootgijoeteaazdatec59c:ni /array10.sh
Java HTML (SS JavaScript
```

67) Deleting the Entire Array

Step1: Create a Bash Script

```
      ☑ not@f30Mes52daec59c:~
      —
      ☐
      X

      root@f384ea52daec59c:~# vi array11.sh
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```

Step 2: Write the script in the editor

```
Pront@f304e552daec59c:~

declare -a example_array=( "Java" "Python" "HIML" "CSS"_"JavaScript" )

#Deleting Entire Array
unset example_array
# #Printing the Array Elements
echo ${lexample_array(@)}
# #Printing the keys
echo ${lexample_array(@)}
```

Step 3: Run the script

```
root@f304ea52daec59c:~# ./array11.sh
```

68) Slice Array Elements

Step1: Create a Bash Script

```
      ⊙ root@#304ea52daec59c: -# touch array12.sh
      — ⑤ X

      root@#384ea52daec59c: -# chmod +x array12.sh
      - root@#304ea52daec59c: -# v1 array12.sh
```

Step 2: Write the script in the editor

```
cont@f304es52daec59c:~
example_array=( "Java" "Python" "HTML" "CSS" "JavaScript" )

#$Slicing the Array
sliced_array=("${example_array[@]:1:3}")

##Applying for loop to iterate over each element in Array
for i in "${sliced_array[@]}"

##op $i

#in "${sliced_array[@]}"

#in $i

#i
```

Step 3: Run the script

```
root@f304ea52daec59c:~# ./array12.sh
Python
HTML
CSS
```