

Arrays in shell

1) array=(one two three four five)

```
echo "Array size: ${#array[*]}"
```

```
echo "Array items:"
for item in ${array[*]}
do
echo $item
done
```

```
echo "Array indexes:"
for index in ${!array[*]}
do
echo $index
done
```

```
echo "Array items and indexes:"
for index in ${!array[*]}
do
echo $index ${array[$index]}
done
```

```
echo "Array elements: ${array[*]}"
echo "Array elements: ${array[@]}"
```

```
Array size: 5
Array items:
one
two
three
four
five
```

```
Array indexes:
```

```
0
1
2
3
5
```

```
Array items and indexes:
```

```
0: one
1: two
2: three
3: four
5: five
```

```
Array elements: one two three four five
Array elements: one two three four five
```

2) read -a array

```
for i in ${array[*]}
do
echo $i
done
```

```
echo "print first element"
echo ${array[0]}
echo ${array:0}
```

```
echo "display all elements"
echo ${array[@]}
echo ${array[@]:0}
```

```
echo "display all elements except first one"
echo ${array[@]:1}
```

```
echo "display elements in a range"
echo ${array[@]:1:4}
```

```
echo "length of first element"
echo ${#array[0]}
echo ${#array}
```

```
echo "Number of elements"
echo ${#array[*]}
echo ${#array[@]}
```

Functions in shell scripts

3)
length=0

```
function len
{
length=`echo -n $1|wc -m`
}
```

```
read -p "Enter a string : " str
len $str
echo -e "\nLength $length"
```

4) with arguments

```
fresh()  
{  
echo "first argument" $1  
echo "all  
args passed " $@  
echo "args passed " $*  
}
```

```
echo "calling fresh 1st time"  
fresh tomato
```

```
echo "calling fresh with 3 args"  
fresh tomato chilli paneer
```

5) Returning values

```
func1()  
{  
echo "func1 "  
return 4  
}
```

```
func2()  
{  
echo "func2 "  
return 8  
}
```

```
func1  
echo "return code from func 1 is" $?
```

```
func2  
echo "return code from func2 is" $?
```