**Arrays**

We can define an **array** by directly specifying values at each **index**.

arr1[0]="a"  
arr1[1]="b"  
arr1[2]="c"

BASH

We can **print out** the array like this:

echo $arr1 # prints first character  
echo ${arr1[1]} # prints second character  
echo ${arr1[\*]} # prints all characters  
echo ${arr1[@]} # prints all characters

BASH

However, this is inefficient. We can define the **entire array** at once like this:

arr1=("a" "b" "c")

BASH

Note that the **double quotes** aren’t really necessary. The array would work as usual if we did not have them.

arr1=(a b c)

BASH

However, if we have **spaces** within an individual element, then we would need to use the quotes. The two arrays below are not the same.

arr1=("a" "b" "c d")  
arr2=(a b c d)

BASH

We can also **combine** elements within quotations and elements without:

arr1=(a b "c d")

BASH

We can **loop** over the elements in an array using a for loop.

for val in ${arr1[\*]}  
do  
 echo $val  
done

BASH