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Lab 3.2

9. Write a script called myarr that ask a user how many elements he wants to enter in an array, fill the array and then print it.

```bash
#!/bin/bash

#Q9

read -p "Enter the number of elements in the array : " n

arr=()

for(( i=0;i<n;i++ )); do
        read -p "Enter Element $((i+1)) : " m
        arr+=("$m")
done

echo "The Elements Of The Array :-"

typeset -i x=1

for i in ${arr[*]}; do

        echo "Element $x : "  $i
        x=$x+1
done
```

```
seif@alienware-17-r5:~/Documents/Intro_To_Shell_Scripting/Files$ vi myarr.sh
seif@alienware-17-r5:~/Documents/Intro_To_Shell_Scripting/Files$ ./myarr.sh
Enter the number of elements in the array : 6
Enter Element 1 : 1
Enter Element 2 : Casilas
Enter Element 3 : 7
Enter Element 4 : CR7
Enter Element 5 : 10
Enter Element 6 : LM10
The Elements Of The Array :-
Element 1 :  1
Element 2 :  Casilas
Element 3 :  7
Element 4 :  CR7
Element 5 :  10
Element 6 :  LM10
seif@alienware-17-r5:~/Documents/Intro_To_Shell_Scripting/Files$
```

10.Write a script called myavg that calculate average of all numbers entered by a user.
Note: use arrays

```bash
#!/bin/bash

#Q10

read -p "Enter the number of elements in the array : " n

arr=()

for(( i=0;i<n;i++ )); do
        read -p "Enter Element $((i+1)) : " m
        if [[ "$m" =~ ^[0-9]+ ]]; then
                arr+=("$m")
        else
                echo "Invalid input. Please enter a valid number."
                i=$i-1
        fi
done


typeset -i sum=0

for i in ${arr[*]}; do
        sum=$sum+i
done

echo "The Average Of All Numbers in The Array is : $((sum/n))"
```

```
seif@alienware-17-r5:~/Documents/Intro_To_Shell_Scripting/Files$ vi myavg.sh
seif@alienware-17-r5:~/Documents/Intro_To_Shell_Scripting/Files$ ./myavg.sh
Enter the number of elements in the array : 4
Enter Element 1 : 10
Enter Element 2 : 20
Enter Element 3 : 30
Enter Element 4 : 40
The Average Of All Numbers in The Array is : 25
```

11.Write a function called mysq that calculate square if its argument.

```bash
#!/bin/bash

#Q11

num=$1

function mysq() {

    if [ $# -eq 1 ]; then
        if [[ $1 =~ ^[0-9]+$ ]]; then
            res=$((num * num))
            echo $res
        else
            echo "Error: Only Numbers Allowed."
        fi
    else
        echo "Error: Only 1 Argument Allowed."
    fi
}

mysq $*
```

```
seif@alienware-17-r5:~/Documents/Intro_To_Shell_Scripting/Files$ ./func.sh 4 5 6  6
Error: Only 1 Argument Allowed.
seif@alienware-17-r5:~/Documents/Intro_To_Shell_Scripting/Files$ ./func.sh aggs453ewtsdf
Error: Only Numbers Allowed.
seif@alienware-17-r5:~/Documents/Intro_To_Shell_Scripting/Files$ ./func.sh 4 5 6  6
Error: Only 1 Argument Allowed.
seif@alienware-17-r5:~/Documents/Intro_To_Shell_Scripting/Files$ ./func.sh 4
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seif@alienware-17-r5:~/Documents/Intro_To_Shell_Scripting/Files$
```