



boa3444 / Linux\_Lab

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81 lines (66 loc) · 2.02 KB

# LAB2 : Script Execution & Explanation

Objective: Understand how existing scripts in repo work

## Script that I chose : array\_length.sh

### Line-by-Line EXPLANATION:

```
#!/bin/bash
```



- **Shebang line:** Specifies that the script should be run using the Bash shell.

```
number=(0 9 8 7 6)
```



- **Array declaration:** Creates an indexed array named `number` with five integer elements.

```
length="\${#number[@]}"
```



- **Length calculation and output:**

- `\${number[@]}` accesses all elements of the array.
- `\${#number[@]}` returns the total number of elements.

```
echo "$length"
```



- **Printing the variable `length`**

- o echo prints the result: 5 .

## CODE SNIPPET (with output):

```
vboxuser@ubuntu:~/Documents/Linux_Lab/Arrays$ cat arrays_length.sh
#!/bin/bash

numbers=(0 9 8 7 6)
length="${#numbers[@]}"
echo $length
vboxuser@ubuntu:~/Documents/Linux_Lab/Arrays$ ./arrays_length.sh
5
vboxuser@ubuntu:~/Documents/Linux_Lab/Arrays$
```

## Script that I chose : print\_with\_range.sh

### Line-by-Line EXPLANATION:

```
#!/bin/bash
```



- **Shebang line:** Tells the system to execute the script using the Bash shell.

```
for i in {0..7}
```



- **Loop initialization:** Starts a for loop that iterates over the numbers 1 through 5 using brace expansion {1..5} .

```
do
```



- **Loop body begins:** Marks the start of the commands to be executed in each iteration.

```
echo "Number: $i"
```



- **Output statement:** Prints the current value of i with the label "Count:" .

```
done
```



- **Loop body ends:** Signals the end of the for loop.

**CODE SNIPPET (with output):**

```
vboxuser@ubuntu:~/Documents/Linux_Lab/Arrays$ cat range.sh
#!/bin/bash

for i in {0..7}
do echo "Number: $i"
done

vboxuser@ubuntu:~/Documents/Linux_Lab/Arrays$ ./range.sh
Number: 0
Number: 1
Number: 2
Number: 3
Number: 4
Number: 5
Number: 6
Number: 7
vboxuser@ubuntu:~/Documents/Linux_Lab/Arrays$
```

## Extra Questions:

1.What is the purpose of `#!/bin/bash` at the top of a script?

Answer:

-The line `#!/bin/bash` is called a **shebang**.

-It tells the system to execute the script using the Bash shell, ensuring consistent behavior across environments.

2. How do you make a script executable?

Answer:

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