

LAB2 – Script Execution & Explanation

Script 1: `print_numbers.sh`

◇ Purpose:

This script prints numbers from 1 to 5 using a loop.

Script Code:

```
#!/bin/bash

for i in {1..5}
do
    echo "Number: $i"
done
```

Line	Explanation
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<code>`#!/bin/bash`</code>	Shebang line - tells the OS to run the script using Bash shell.
<code>`for i in {1..5}`</code>	Loops through numbers 1 to 5 and assigns each to variable <code>`i`</code> .
<code>`do`</code>	Begins the body of the loop.
<code>`echo "Number: \$i"`</code>	Prints the current value of <code>`i`</code> .
<code>`done`</code>	Ends the loop.

 Example Run:

Command:

`bash print_numbers.sh`

Output:

Number: 1
Number: 2
Number: 3
Number: 4
Number: 5

 Script 2: `array_loop.sh`

◇ Purpose:

This script demonstrates how to loop through an array **in** Bash.

🔍 Script Code:

```
#!/bin/bash

fruits=("apple" "banana" "cherry")

for fruit in "${fruits[@]}"
do
    echo "I like $fruit"
done
```

🧠 Line-by-Line Explanation:

Line	Explanation
#!/bin/bash	Specifies that the script should be run with Bash shell.
fruits=("apple" "banana" "cherry")	Declares an array with 3 elements.
for fruit in "\${fruits[@]}"	Loops through all elements in the array.
do	Starts the loop block.
echo "I like \$fruit"	Prints each fruit name with a message.
done	Ends the loop block.

▶ Example Run:

Command:

```
bash array_loop.sh
```

Output:

```
I like apple
I like banana
I like cherry
```

? Extra Questions

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

The line `#!/bin/bash` is called a shebang. It tells the operating system to use the Bash shell to interpret and run the script. Without it, the system may default to another shell like `sh`, which may behave differently.

- ☒ How **do** you make a script executable?

You can make a script executable using the `chmod` **command**:

```
chmod +x script_name.sh
```

After that, you can run it directly like this:

```
./script_name.sh
```

📄 Final Deliverables

LAB2.md (this file)

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