LAB2.md

Script 1: print_numbers.sh

Purpose:
Prints numbers from 1 to 5.

Code:

```bash
#!/bin/bash
# filepath: Scripts/print_numbers.sh

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

Line-by-line Explanation:

1. `#!/bin/bash` — Shebang; tells the system to use Bash to run the script.
2. `for i in {1..5}` — Loops through numbers 1 to 5.
3. `do` — Starts the loop block.
4. `echo $i` — Prints the current number.
5. `done` — Ends the loop.

Example Run:

```
$ ./print_numbers.sh
1
2
3
4
5
```

```
[vaibhavkumar@VAIBHAVs-MacBook-Air scripts % nano scripts.sh
[vaibhavkumar@VAIBHAVs-MacBook-Air scripts % ./scripts.sh
apple
banana
cherry
vaibhavkumar@VAIBHAVs-MacBook-Air scripts % ▋
```

Script 2: array_loop.sh

Purpose:

Prints each element of an array.

Code:

```bash
#!/bin/bash
# filepath: Scripts/array_loop.sh

arr=("apple" "banana" "cherry")
for fruit in "${arr[@]}"
do
  echo $fruit
done
```

Line-by-line Explanation:

1. `#!/bin/bash` — Shebang; uses Bash shell.
2. `arr=("apple" "banana" "cherry")` — Declares an array with three fruits.
3. `for fruit in "${arr[@]}"` — Loops through each element in the array.
4. `do` — Starts the loop block.
5. `echo $fruit` — Prints the current fruit.
6. `done` — Ends the loop.

Example Run:

```
$ ./array_loop.sh
apple
banana
cherry
```

```
vaibhavkumar@VAIBHAVs-MacBook-Air scripts % nano scripts.sh
vaibhavkumar@VAIBHAVs-MacBook-Air scripts % ./scripts.sh
apple
banana
cherry
vaibhavkumar@VAIBHAVs-MacBook-Air scripts %
```

Extra Questions

1. What is the purpose of `#!/bin/bash` at the top of a script?
It tells the system to use the Bash shell to interpret and run the script.

2. How do you make a script executable?
Use the command:

```
chmod +x scriptname.sh
```

Replace `scriptname.sh` with your script's