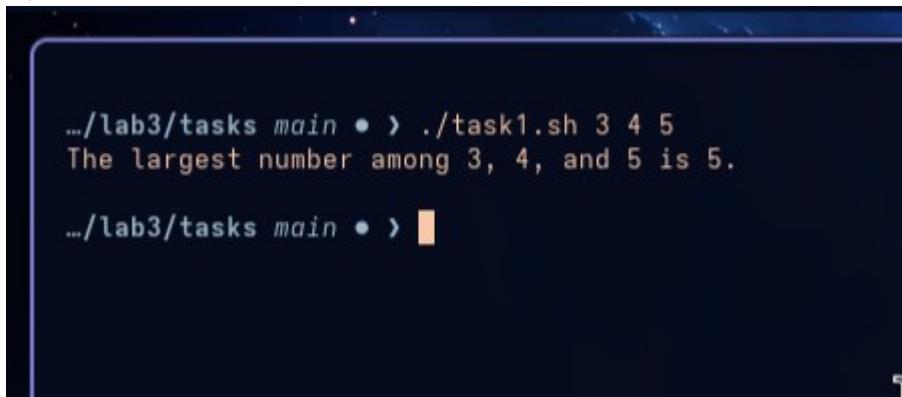


OS Lab 3 Tasks

1)



```
.../lab3/tasks main • > ./task1.sh 3 4 5
The largest number among 3, 4, and 5 is 5.
```

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

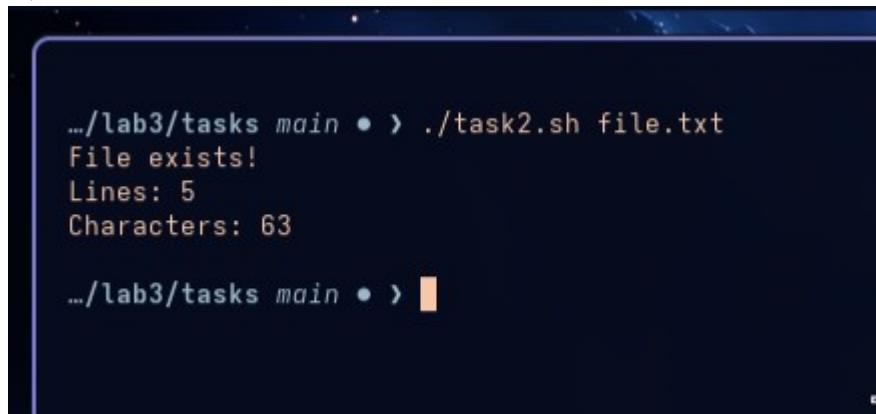
```
num1=$1
num2=$2
num3=$3
max=$num1

printmax() {
    printf "The largest number among $num1, $num2, and $num3 is $max.\n"
}

if [[ $num1 -gt $num2 ]]; then
    if [[ $num1 -gt $num3 ]]; then
        max=$num1
    else
        max=$num3
    fi
else
    if [[ $num2 -gt $num3 ]]; then
        max=$num2
    else
        max=$num3
    fi
fi

printmax
```

2)



```
.../lab3/tasks main • > ./task2.sh file.txt
File exists!
Lines: 5
Characters: 63

.../lab3/tasks main • >
```

//file.txt

Hello, this is a file.

It has 5 lines.

And a few characters.

```
// task2.sh
#!/bin/bash
```

fname=\$1

```
if [[ -e "$fname" ]]; then
    printf "File exists!\n"
    printf "Lines: "
    wc -l < "$fname"
    printf "Characters: "
    wc -m < "$fname"
else
    printf "File doesn't exist!\n"
fi
```

3)

```
.../lab3/tasks main • > ./task3.sh .
Dir exists!
.hidden.txt

.../lab3/tasks main • > ls -a
Permissions Size User Date Modified Name
.rw-r--r--    0 f4ll3n 6 Feb 09:53  .hidden.txt
.rw-r--r--   63 f4ll3n 6 Feb 11:15  file.txt
.rwxr--r--  359 f4ll3n 6 Feb 09:52  task1.sh
.rwxr--r--  209 f4ll3n 6 Feb 09:52  task2.sh
.rwxr--r--  129 f4ll3n 6 Feb 10:01  task3.sh
.rwxr--r--  134 f4ll3n 6 Feb 10:07  task4.sh
.rwxr--r--  367 f4ll3n 6 Feb 11:06  task5.sh
```

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

```
dname=$1

if [[ -d "$dname" ]]; then
    printf "Dir exists!\n"
    ls.*
else
    printf "File doesn't exist!\n"
fi
```

4)

```
.../lab3/tasks main • > ./task4.sh
Enter a number: 19
19 is odd.

.../lab3/tasks main • > ./task4.sh
Enter a number: 10
10 is even.

.../lab3/tasks main • >
```

```

#!/bin/bash

printf "Enter a number: "
read num

if (( $num % 2 == 0 )); then
    echo "$num is even."
else
    echo "$num is odd."
fi

```

5)

The screenshot shows a terminal window with the following output:

```

.../lab3/tasks main • X ./task5.sh .
Directory '.' has been backed up to '../project_backup_20260206112334'.
Number of files backed: 7

.../lab3/tasks main • ? > ls
Permissions Size User Date Modified Name
.rw-r--r--   63 f4ll3n 6 Feb 11:15 file.txt
.rwxr--r--  359 f4ll3n 6 Feb 09:52 task1.sh
.rwxr--r--  209 f4ll3n 6 Feb 09:52 task2.sh
.rwxr--r--  129 f4ll3n 6 Feb 10:01 task3.sh
.rwxr--r--  134 f4ll3n 6 Feb 10:07 task4.sh
.rwxr--r--  367 f4ll3n 6 Feb 11:06 task5.sh

.../lab3/tasks main • ? > ls ..
Permissions Size User Date Modified Name
drwxr-xr-x   - f4ll3n 6 Feb 11:23 project_backup_20260206112334
drwxr-xr-x   - f4ll3n 6 Feb 11:06 tasks
.rw-r--r--  272 f4ll3n 6 Feb 09:52 backup.sh
.rw-r--r--  319 f4ll3n 6 Feb 09:52 lab3.sh

.../lab3/tasks main • ? > ls ../project_backup_20260206112334
Permissions Size User Date Modified Name
.rw-r--r--   63 f4ll3n 6 Feb 11:23 file.txt
.rwxr--r--  359 f4ll3n 6 Feb 11:23 task1.sh
.rwxr--r--  209 f4ll3n 6 Feb 11:23 task2.sh
.rwxr--r--  129 f4ll3n 6 Feb 11:23 task3.sh
.rwxr--r--  134 f4ll3n 6 Feb 11:23 task4.sh
.rwxr--r--  367 f4ll3n 6 Feb 11:23 task5.sh

.../lab3/tasks main • ? >

```

#!/bin/bash

dname=\$1

```
backup_dir="project_backup_$(date +%Y%m%d%H%M%S)"

if [ -d "$pname" ]; then
    cp -r "$pname" "../$backup_dir/"
    printf "Directory '$pname' has been backed to '../$backup_dir'.\n"
    printf "Number of files backed: "
    find "../$backup_dir/$pname" -mindepth 1 -maxdepth 1 | wc -l
else
    printf "Directory '$pname' does not exist.\n"
fi
```