

OS LAB-2 Part -2
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1.

```
echo "Hello, World!"
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh  
Hello, World!
```

2.

```
# Example of exit  
echo "Exiting the script."  
exit 0
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh  
Exiting the script.
```

3.

```
# Example of umask  
echo "Current umask value:"  
umask
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh  
Current umask value:  
0002
```

4.

```
# Example of export  
export MY_VAR="This is an exported variable."  
echo "MY_VAR is set to: $MY_VAR"
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh  
MY_VAR is set to: This is an exported variable.
```

5.

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

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Number: 1
Number: 2
Number: 3
Number: 4
Number: 5
```

6.

```
# Example of return
my_function() {
    return 42
}

my_function
echo "Function returned: $?"
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Function returned: 42
```

7.

```
# Example of if
value=10
if [ $value -gt 5 ]; then
    echo "Value is greater than 5."
fi
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Value is greater than 5.
```

8.

```
# Example of until
count=1
until [ $count -gt 5 ]; do
    echo "Count is: $count"
    ((count++))
done
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Count is: 1
Count is: 2
Count is: 3
Count is: 4
Count is: 5
```

9.

```
# Example of trap
trap 'echo "Script interrupted!"' SIGINT
echo "Press Ctrl+C to interrupt the script..."
sleep 10
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Press Ctrl+C to interrupt the script...
^CScript interrupted!
```

10.

```
# Example of read
echo "Enter your name:"
read name
echo "Hello, $name!"
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Enter your name:
dinesh
Hello, dinesh!
```

11.

```
# Example of else
value=3
if [ $value -gt 5 ]; then
    echo "Value is greater than 5."
else
    echo "Value is 5 or less."
fi
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Value is 5 or less.
```

12.

```
# Example of case
echo "Enter a number (1-3):"
read number
case $number in
    1) echo "You entered one." ;;
    2) echo "You entered two." ;;
    3) echo "You entered three." ;;
    *) echo "Invalid entry." ;;
esac
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Enter a number (1-3):
2
You entered two.
```

13.

```
# Example of wait
long_running_process() {
    sleep 5
    echo "Process finished."
}
long_running_process &
pid=$!
echo "Waiting for process to finish..."
wait $pid
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Waiting for process to finish...
Process finished.
```

14.

```
# Example of set
set -x # Enable debugging
echo "This will be printed with debugging information."
set +x # Disable debugging
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
+ echo 'This will be printed with debugging information.'
This will be printed with debugging information.
+ set +x
```

15.

```
# Example of eval
command="echo Hello, World!"
eval $command
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Hello, World!
```

16.

```
# Example of unset
name="John"
echo "Name before unset: $name"
unset name
echo "Name after unset: $name"
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Name before unset: John
Name after unset:
```

17.

```
# Example of while
count=1
while [ $count -le 5 ]; do
    echo "Count is: $count"
    ((count++))
done
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
Count is: 1
Count is: 2
Count is: 3
Count is: 4
Count is: 5
```

18.

```
# Example of break
for i in {1..10}; do
    if [ $i -eq 5 ]; then
        break
    fi
    echo $i
done
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
1
2
3
4
```

19.

```
# Example of exec
echo "This will replace the current shell with a new command."
exec ls
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
This will replace the current shell with a new command.
11.png 22.png 33.png 44.png 55.png 66.png 77.png 88.png 99.png os.sh
1.png 2.png 3.png 4.png 5.png 6.png 7.png 8.png 9.png
```

20.

```
# Example of readonly
readonly constant="I am constant."
echo $constant
# constant="Trying to change."
```

```
ex5@208-59ThinkStation-P348:~/Desktop/oslab$ bash os.sh
I am constant.
os.sh: line 4: constant: readonly variable
```