# Operating System – Lab Exercises with Solutions

Session – Bash Scripting & System Utilities

## Lab 1: Read lines from a file

#!/bin/bash  
# Step 1: Create a file with random text  
cat > myfile.txt << EOF  
apple banana cherry  
dog elephant frog  
grape house igloo  
jackal kite lemon  
monkey night owl  
EOF  
  
# Step 2: Read the file line by line  
echo "Reading lines from myfile.txt:"  
while read line; do  
 echo "Line: $line"  
done < myfile.txt

## Lab 2: Print Positional Parameters

#!/bin/bash  
echo "Script name: $0"  
echo "Number of arguments: $#"  
echo "First argument: $1"  
echo "Second argument: $2"  
echo "All arguments: $@"

## Lab 3: Creating Users with a Function

#!/bin/sh  
add\_a\_user() {  
 USER=$1  
 PASSWORD=$2  
 shift; shift  
 COMMENTS=$@  
 echo "Adding user $USER ..."  
 echo useradd -c "$COMMENTS" $USER  
 echo passwd $USER $PASSWORD  
 echo "Added user $USER ($COMMENTS) with pass $PASSWORD"  
}  
  
# Main script starts here  
echo "Start of script..."  
add\_a\_user thomas tompwd Thomas deJaeger the Teacher  
add\_a\_user student studentpwd Student Good students  
echo "End of script..."

## Lab 5: Greeting Function with Validation

#!/bin/bash  
greet\_user() {  
 if [ -z "$1" ]; then  
 echo "Error: No name provided"  
 return 1  
 fi  
 echo "Hello, $1. Today is $(date)."  
}  
  
greet\_user "$1"