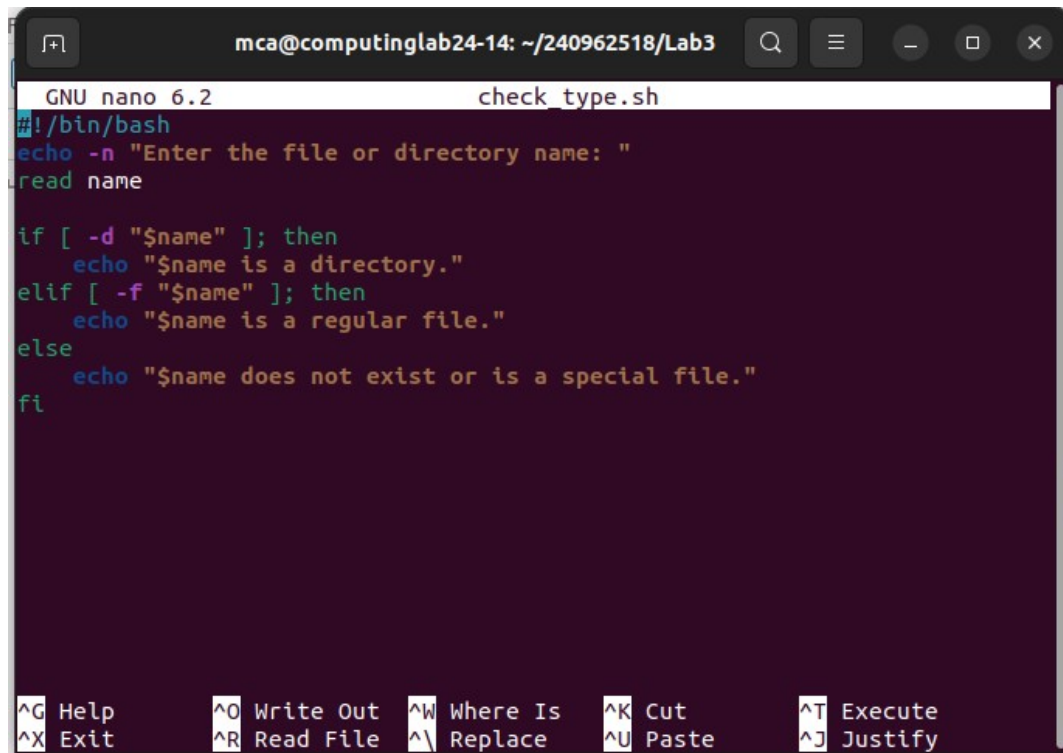


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CLASS : AIML B
DATE : JAN 19 2026
ROLL NO : 44
REGISTRATION NUMBER : 240962518

LAB 3

1. Write a shell script to find whether a given file is the directory or regular file.

CODE:

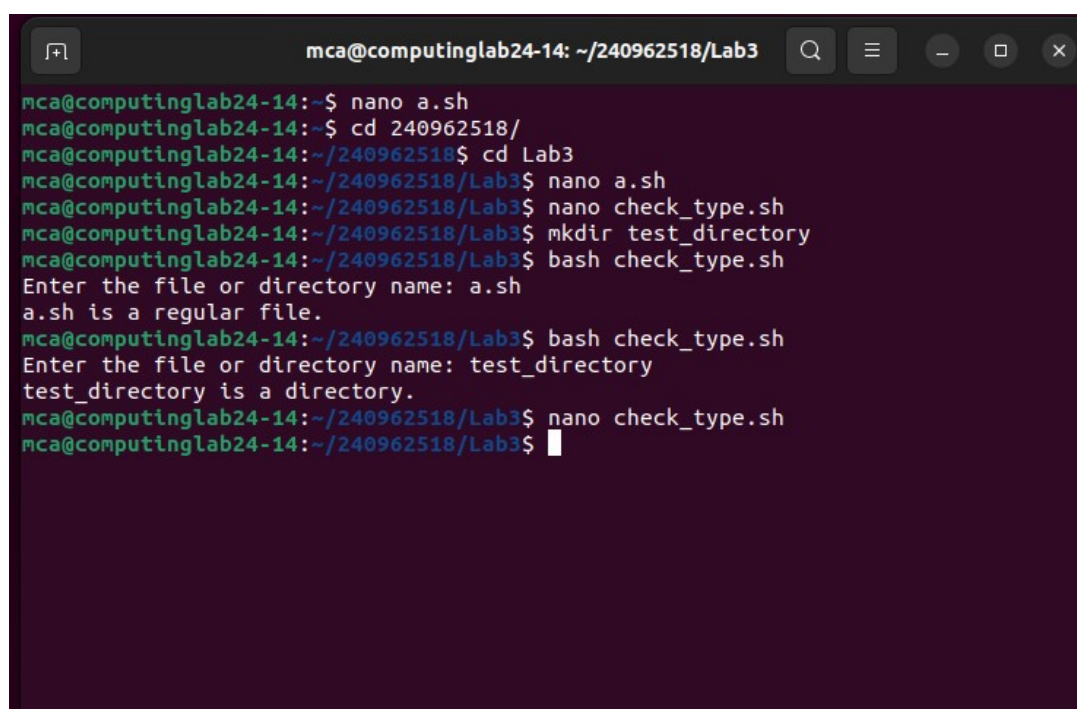


```
mca@computinglab24-14: ~/240962518/Lab3
GNU nano 6.2 check_type.sh
#!/bin/bash
echo -n "Enter the file or directory name: "
read name

if [ -d "$name" ]; then
    echo "$name is a directory."
elif [ -f "$name" ]; then
    echo "$name is a regular file."
else
    echo "$name does not exist or is a special file."
fi

^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute
^X Exit      ^R Read File ^_ Replace   ^U Paste     ^J Justify
```

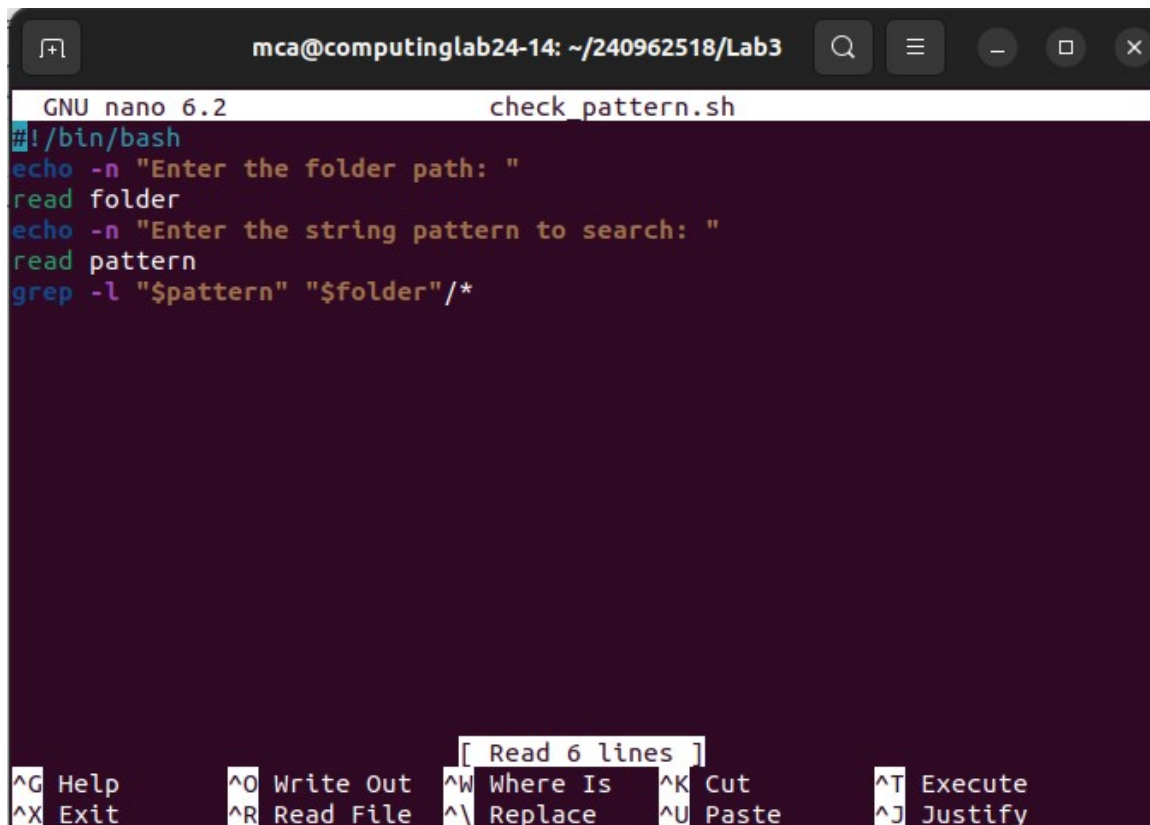
OUTPUT:



```
mca@computinglab24-14: ~/240962518/Lab3
mca@computinglab24-14:~$ nano a.sh
mca@computinglab24-14:~$ cd 240962518/
mca@computinglab24-14:~/240962518$ cd Lab3
mca@computinglab24-14:~/240962518/Lab3$ nano a.sh
mca@computinglab24-14:~/240962518/Lab3$ nano check_type.sh
mca@computinglab24-14:~/240962518/Lab3$ mkdir test_directory
mca@computinglab24-14:~/240962518/Lab3$ bash check_type.sh
Enter the file or directory name: a.sh
a.sh is a regular file.
mca@computinglab24-14:~/240962518/Lab3$ bash check_type.sh
Enter the file or directory name: test_directory
test_directory is a directory.
mca@computinglab24-14:~/240962518/Lab3$ nano check_type.sh
mca@computinglab24-14:~/240962518/Lab3$
```

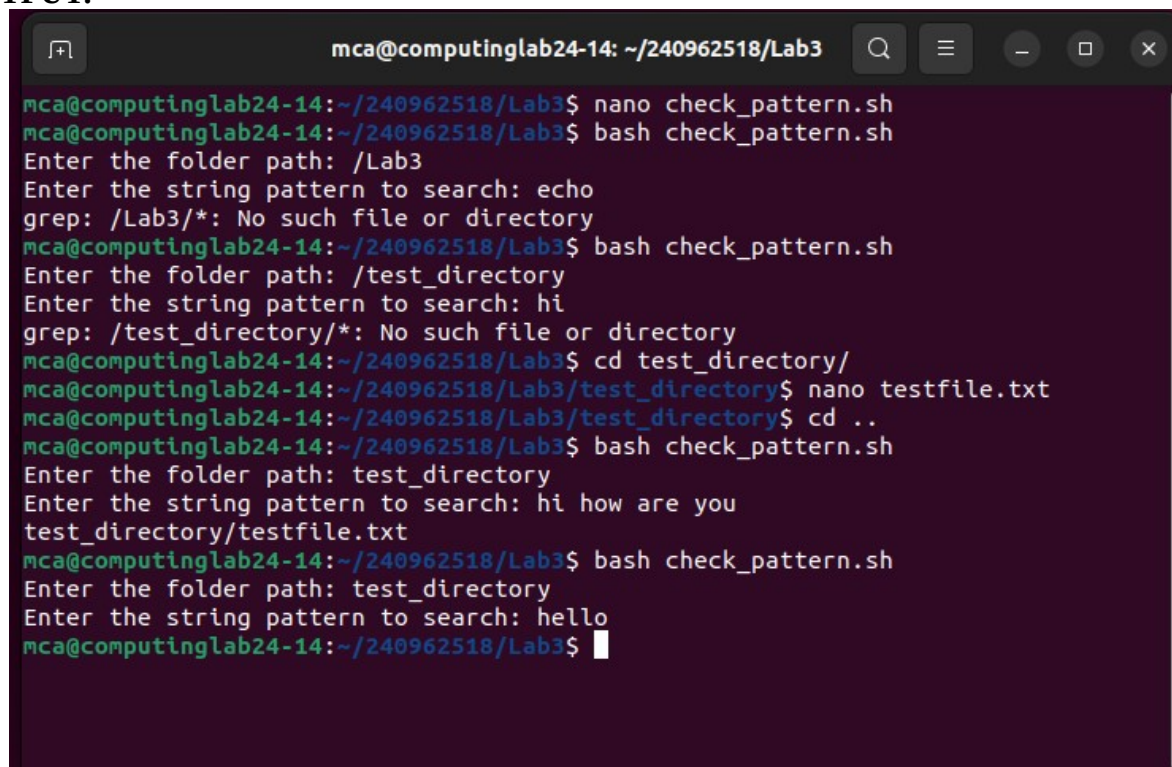
2. Write a shell script to list all files (only file names) containing the input pattern (string) in the folder entered by the user.

CODE:



```
GNU nano 6.2 check_pattern.sh
#!/bin/bash
echo -n "Enter the folder path: "
read folder
echo -n "Enter the string pattern to search: "
read pattern
grep -l "$pattern" "$folder"/*
```

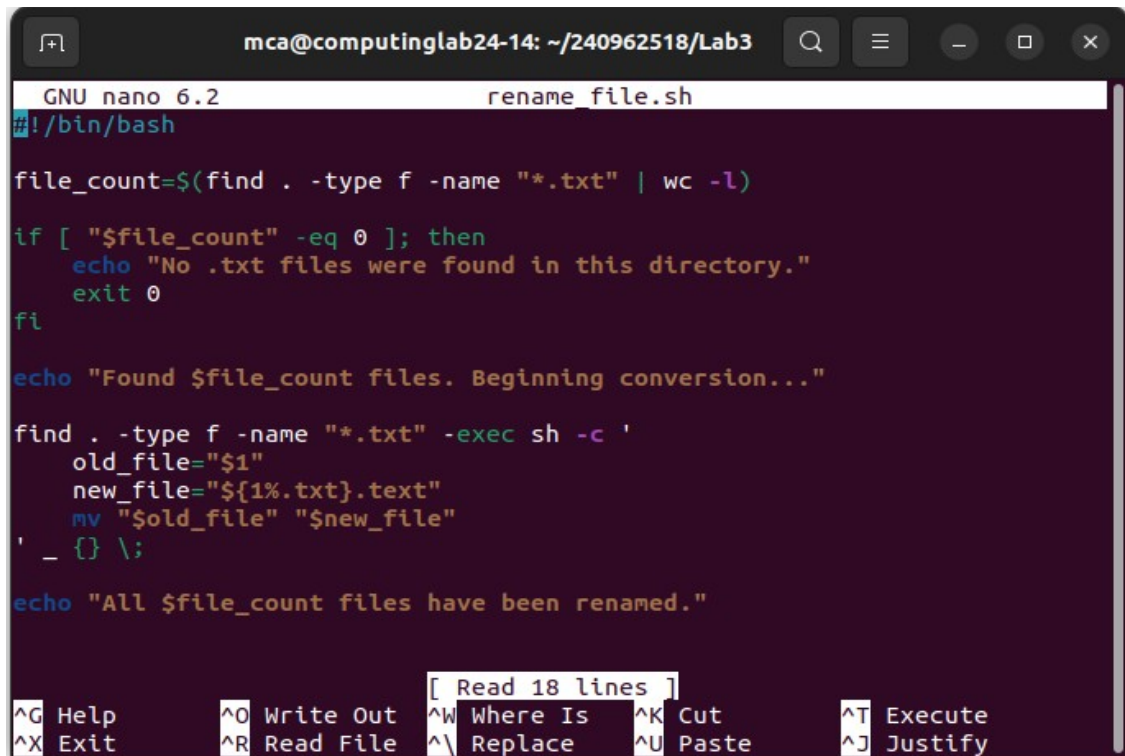
OUTPUT:



```
mca@computinglab24-14: ~/240962518/Lab3
mca@computinglab24-14:~/240962518/Lab3$ nano check_pattern.sh
mca@computinglab24-14:~/240962518/Lab3$ bash check_pattern.sh
Enter the folder path: /Lab3
Enter the string pattern to search: echo
grep: /Lab3/*: No such file or directory
mca@computinglab24-14:~/240962518/Lab3$ bash check_pattern.sh
Enter the folder path: /test_directory
Enter the string pattern to search: hi
grep: /test_directory/*: No such file or directory
mca@computinglab24-14:~/240962518/Lab3$ cd test_directory/
mca@computinglab24-14:~/240962518/Lab3/test_directory$ nano testfile.txt
mca@computinglab24-14:~/240962518/Lab3/test_directory$ cd ..
mca@computinglab24-14:~/240962518/Lab3$ bash check_pattern.sh
Enter the folder path: test_directory
Enter the string pattern to search: hi how are you
test_directory/testfile.txt
mca@computinglab24-14:~/240962518/Lab3$ bash check_pattern.sh
Enter the folder path: test_directory
Enter the string pattern to search: hello
mca@computinglab24-14:~/240962518/Lab3$
```

3. Write a shell script to replace all files with .txt extension with .text in the current directory. This has to be done recursively i.e if the current folder contains a folder "OS" with abc.txt then it has to be changed to abc.text (Hint: use find, mv)

CODE:



```
GNU nano 6.2 rename_file.sh
#!/bin/bash

file_count=$(find . -type f -name "*.txt" | wc -l)

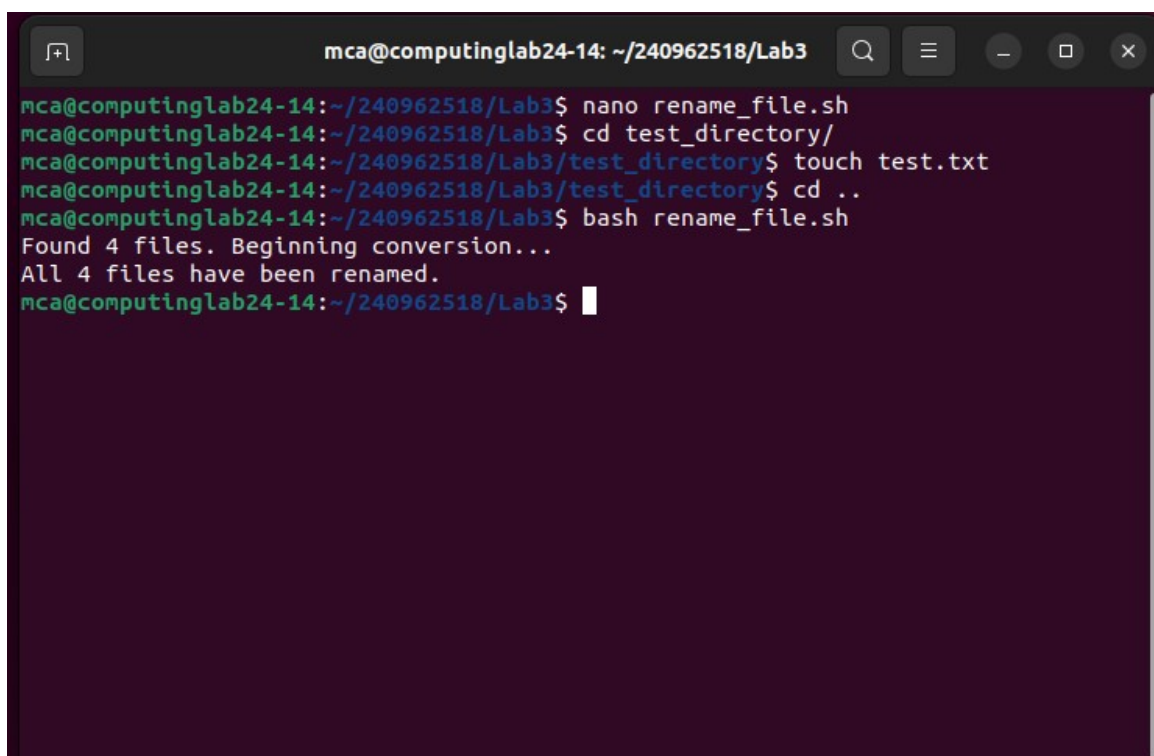
if [ "$file_count" -eq 0 ]; then
    echo "No .txt files were found in this directory."
    exit 0
fi

echo "Found $file_count files. Beginning conversion..."

find . -type f -name "*.txt" -exec sh -c '
    old_file="$1"
    new_file="${1%.txt}.text"
    mv "$old_file" "$new_file"
' _ {} \;

echo "All $file_count files have been renamed."
```

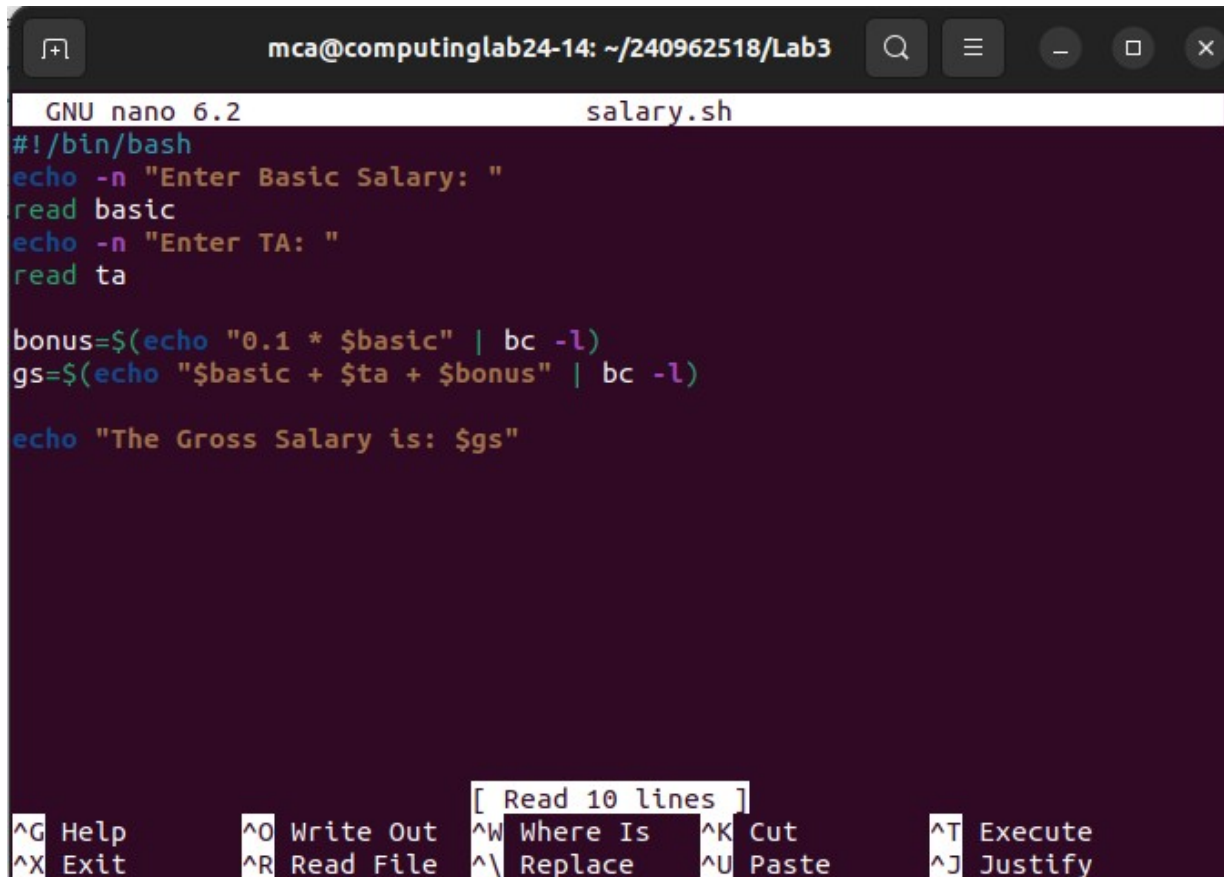
OUTPUT:



```
mca@computinglab24-14: ~/240962518/Lab3$ nano rename_file.sh
mca@computinglab24-14: ~/240962518/Lab3$ cd test_directory/
mca@computinglab24-14: ~/240962518/Lab3/test_directory$ touch test.txt
mca@computinglab24-14: ~/240962518/Lab3/test_directory$ cd ..
mca@computinglab24-14: ~/240962518/Lab3$ bash rename_file.sh
Found 4 files. Beginning conversion...
All 4 files have been renamed.
mca@computinglab24-14: ~/240962518/Lab3$
```

4. Write a shell script to calculate the gross salary. $GS = \text{Basics} + TA + 10\% \text{ of Basics}$. Floating point calculations has to be performed.

CODE:



```
mca@computinglab24-14: ~/240962518/Lab3
GNU nano 6.2 salary.sh
#!/bin/bash
echo -n "Enter Basic Salary: "
read basic
echo -n "Enter TA: "
read ta

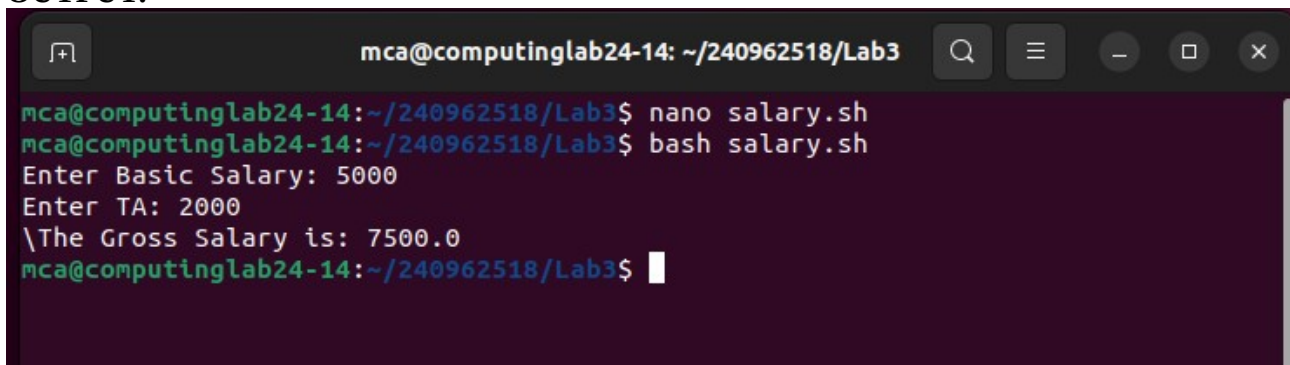
bonus=$(echo "0.1 * $basic" | bc -l)
gs=$(echo "$basic + $ta + $bonus" | bc -l)

echo "The Gross Salary is: $gs"
```

[Read 10 lines]

^G Help	^O Write Out	^W Where Is	^K Cut	^T Execute
^X Exit	^R Read File	^\ Replace	^U Paste	^J Justify

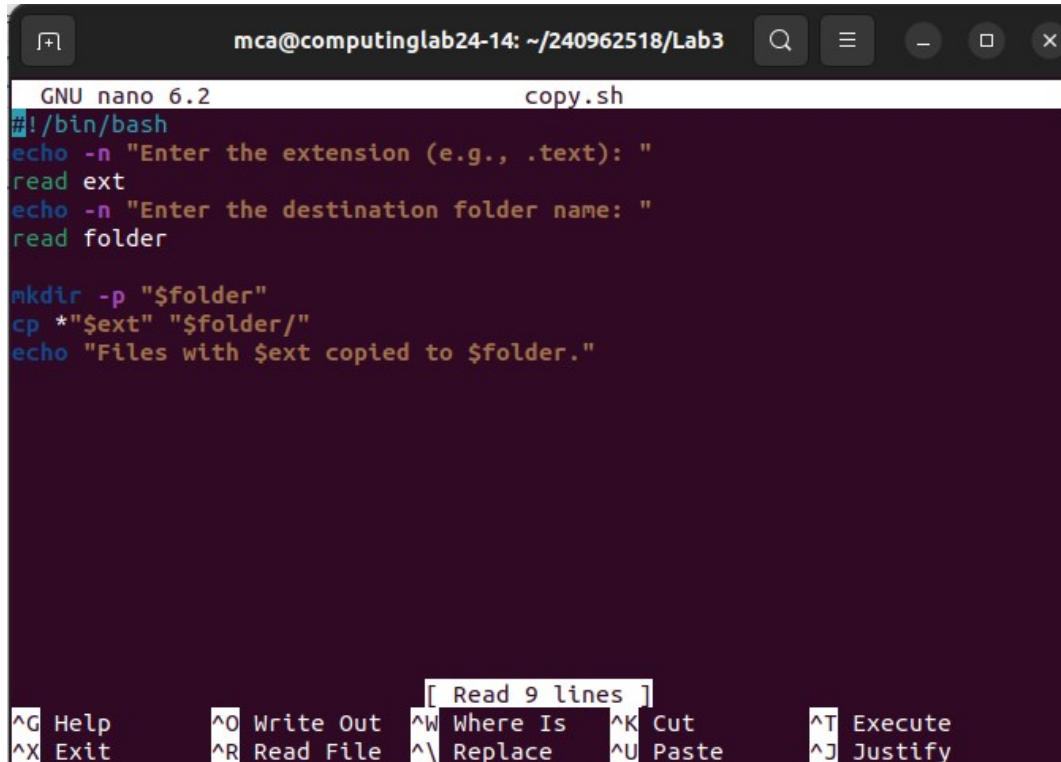
OUTPUT:



```
mca@computinglab24-14: ~/240962518/Lab3
mca@computinglab24-14:~/240962518/Lab3$ nano salary.sh
mca@computinglab24-14:~/240962518/Lab3$ bash salary.sh
Enter Basic Salary: 5000
Enter TA: 2000
\The Gross Salary is: 7500.0
mca@computinglab24-14:~/240962518/Lab3$
```


5. Write a program to copy all the files (having file extension input by the user) in the current folder to the new folder input by the user. ex: user enter .text TEXT then all files with .text should be moved to TEXT folder. This should be done only at single level. i.e if the current folder contains a folder name ABC which has .txt files then these files should not be copied to TEXT.

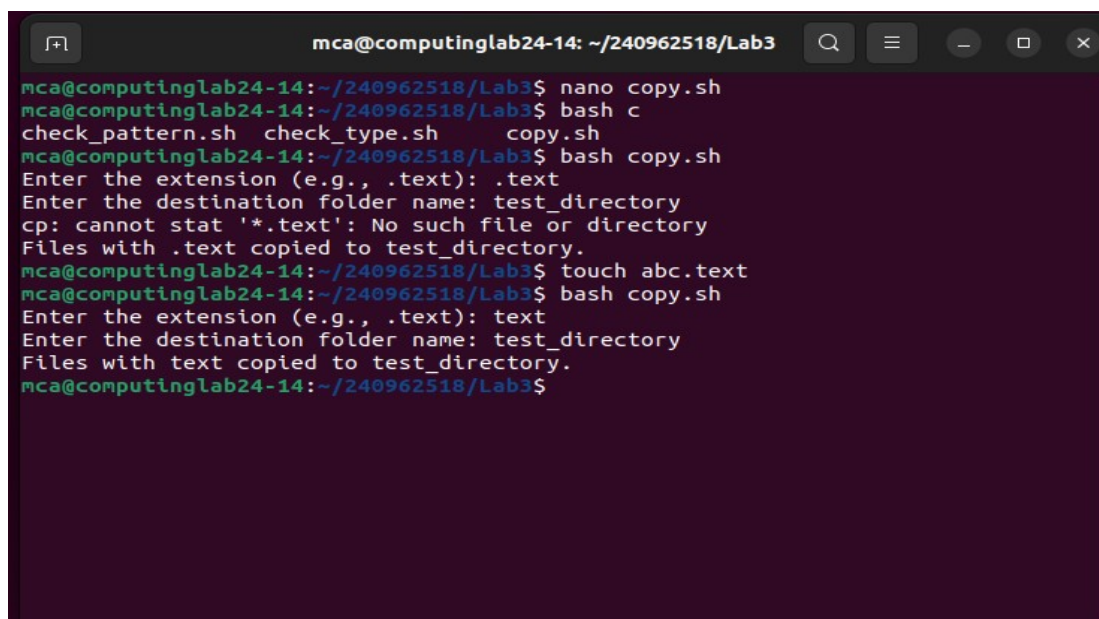
CODE:



```
GNU nano 6.2 copy.sh
#!/bin/bash
echo -n "Enter the extension (e.g., .text): "
read ext
echo -n "Enter the destination folder name: "
read folder

mkdir -p "$folder"
cp *"$ext" "$folder/"
echo "Files with $ext copied to $folder."
```

OUTPUT



```
mca@computinglab24-14: ~/240962518/Lab3
mca@computinglab24-14:~/240962518/Lab3$ nano copy.sh
mca@computinglab24-14:~/240962518/Lab3$ bash c
check_pattern.sh check_type.sh copy.sh
mca@computinglab24-14:~/240962518/Lab3$ bash copy.sh
Enter the extension (e.g., .text): .text
Enter the destination folder name: test_directory
cp: cannot stat '*.text': No such file or directory
Files with .text copied to test_directory.
mca@computinglab24-14:~/240962518/Lab3$ touch abc.text
mca@computinglab24-14:~/240962518/Lab3$ bash copy.sh
Enter the extension (e.g., .text): text
Enter the destination folder name: test_directory
Files with text copied to test_directory.
mca@computinglab24-14:~/240962518/Lab3$
```