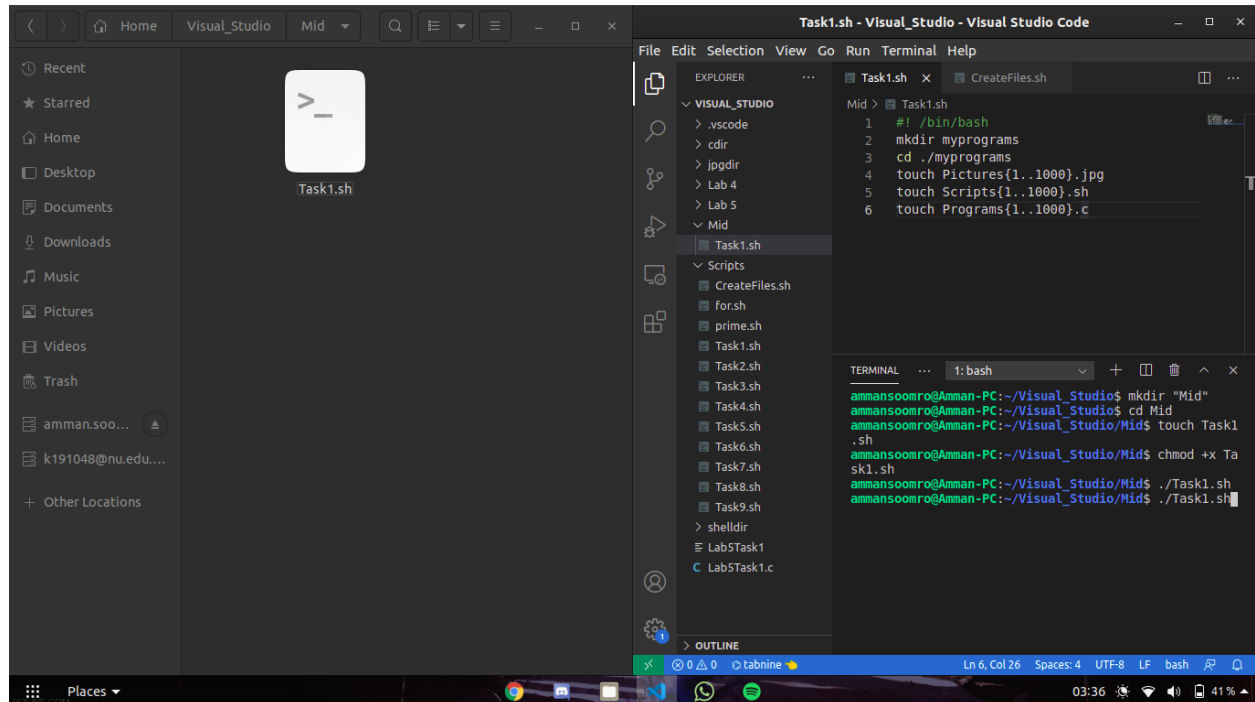
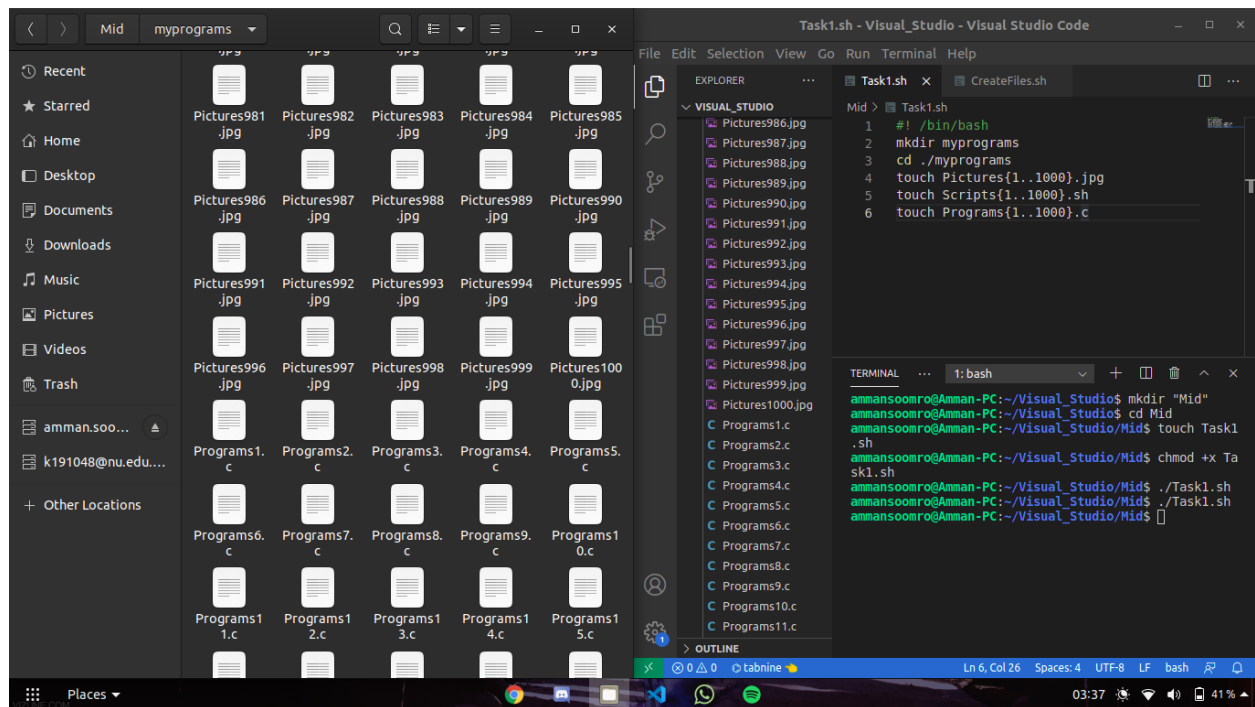


TASK 1

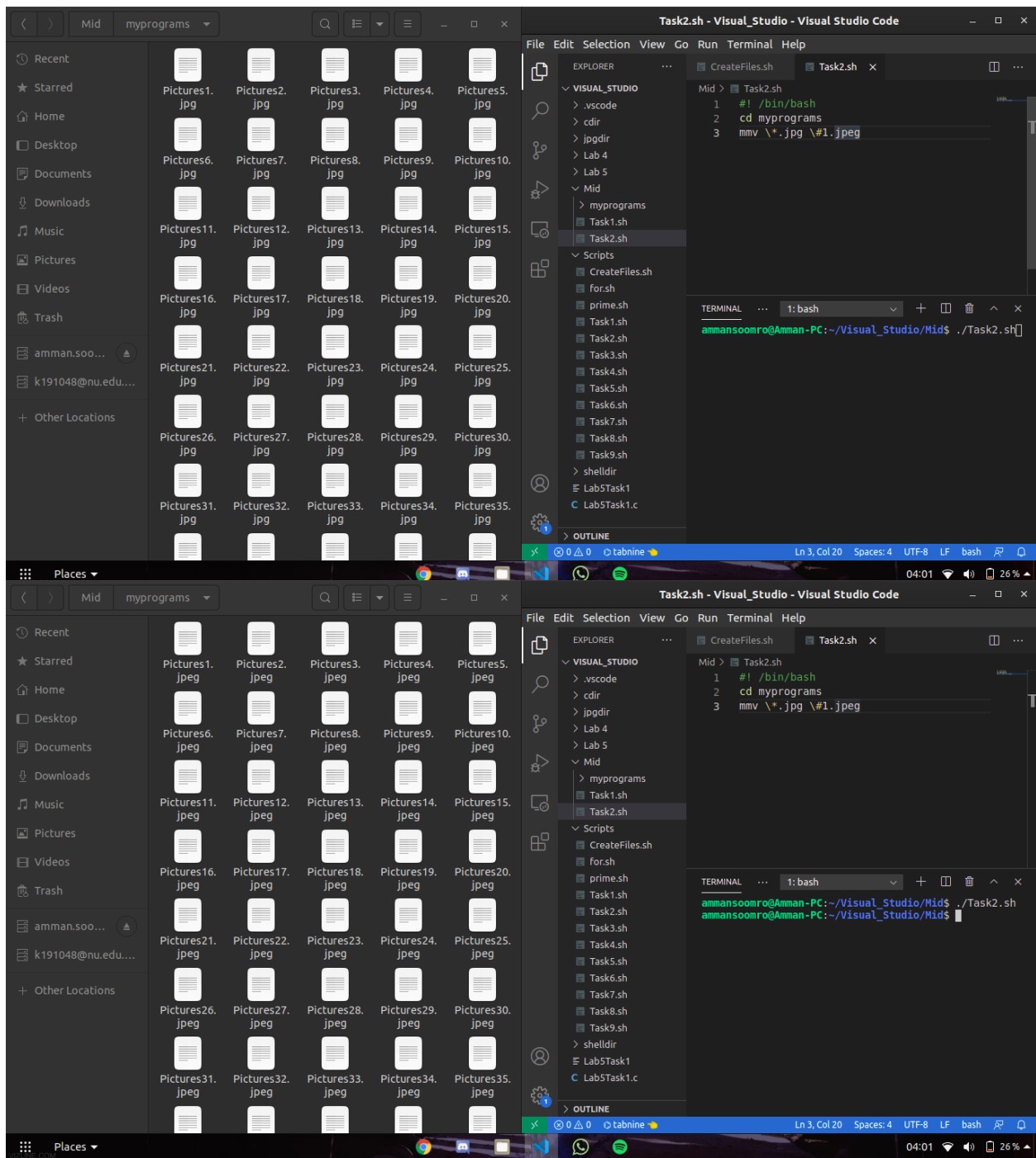
```
#!/bin/bash
mkdir myprograms
cd ./myprograms
touch Pictures{1..1000}.jpg
touch Scripts{1..1000}.sh
touch Programs{1..1000}.c
```





TASK 2

```
#!/bin/bash
cd myprograms
mmv \*.jpg \#1.jpeg
```



TASK 3

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

```
## Command "ls" don't support listing files over or below a certain size
```

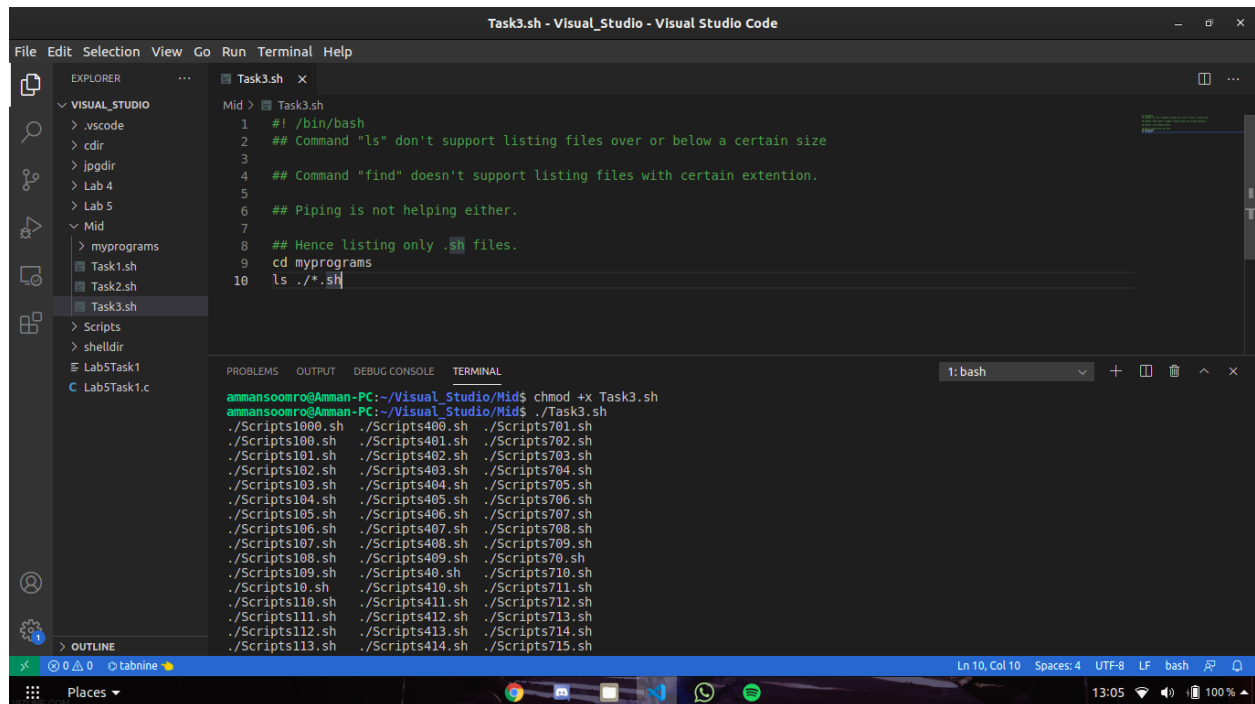
```
## Command "find" doesn't support listing files with certain extension.
```

```
## Piping is not helping either.
```

```
## Hence listing only .sh files.
```

```
cd myprograms
```

```
ls ./*.sh
```



The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left shows a project structure with folders like .vscode, cd, jgdir, Lab 4, Lab 5, Mid, myprograms, Scripts, and shellid. The file Task3.sh is selected. The main editor displays the content of Task3.sh, which includes comments about the limitations of 'ls', 'find', and piping, and a command to list .sh files in the myprograms directory. The TERMINAL panel at the bottom shows the execution of the script, listing 15 files from ./Scripts1000.sh to ./Scripts715.sh.

```
Task3.sh - Visual_Studio - Visual Studio Code
```

```
File Edit Selection View Go Run Terminal Help
```

```
EXPLORER
```

```
Mid > Task3.sh
```

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

```
2  ## Command "ls" don't support listing files over or below a certain size
```

```
3
```

```
4  ## Command "find" doesn't support listing files with certain extension.
```

```
5
```

```
6  ## Piping is not helping either.
```

```
7
```

```
8  ## Hence listing only .sh files.
```

```
9  cd myprograms
```

```
10 ls ./*.sh
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
```

```
1: bash
```

```
amansoomro@Amman-PC:~/Visual_Studio/Mid$ chmod +x Task3.sh
```

```
amansoomro@Amman-PC:~/Visual_Studio/Mid$ ./Task3.sh
```

```
./Scripts1000.sh ./Scripts400.sh ./Scripts701.sh
```

```
./Scripts100.sh ./Scripts401.sh ./Scripts702.sh
```

```
./Scripts101.sh ./Scripts402.sh ./Scripts703.sh
```

```
./Scripts102.sh ./Scripts403.sh ./Scripts704.sh
```

```
./Scripts103.sh ./Scripts404.sh ./Scripts705.sh
```

```
./Scripts104.sh ./Scripts405.sh ./Scripts706.sh
```

```
./Scripts105.sh ./Scripts406.sh ./Scripts707.sh
```

```
./Scripts106.sh ./Scripts407.sh ./Scripts708.sh
```

```
./Scripts107.sh ./Scripts408.sh ./Scripts709.sh
```

```
./Scripts108.sh ./Scripts409.sh ./Scripts710.sh
```

```
./Scripts109.sh ./Scripts410.sh ./Scripts711.sh
```

```
./Scripts110.sh ./Scripts411.sh ./Scripts712.sh
```

```
./Scripts111.sh ./Scripts412.sh ./Scripts713.sh
```

```
./Scripts112.sh ./Scripts413.sh ./Scripts714.sh
```

```
./Scripts113.sh ./Scripts414.sh ./Scripts715.sh
```

```
Ln 10, Col 10 Spaces: 4 UTF-8 LF bash
```

```
13:05 100%
```

TASK 4

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

```
## Command "ls" don't support listing files over or below a certain size
```

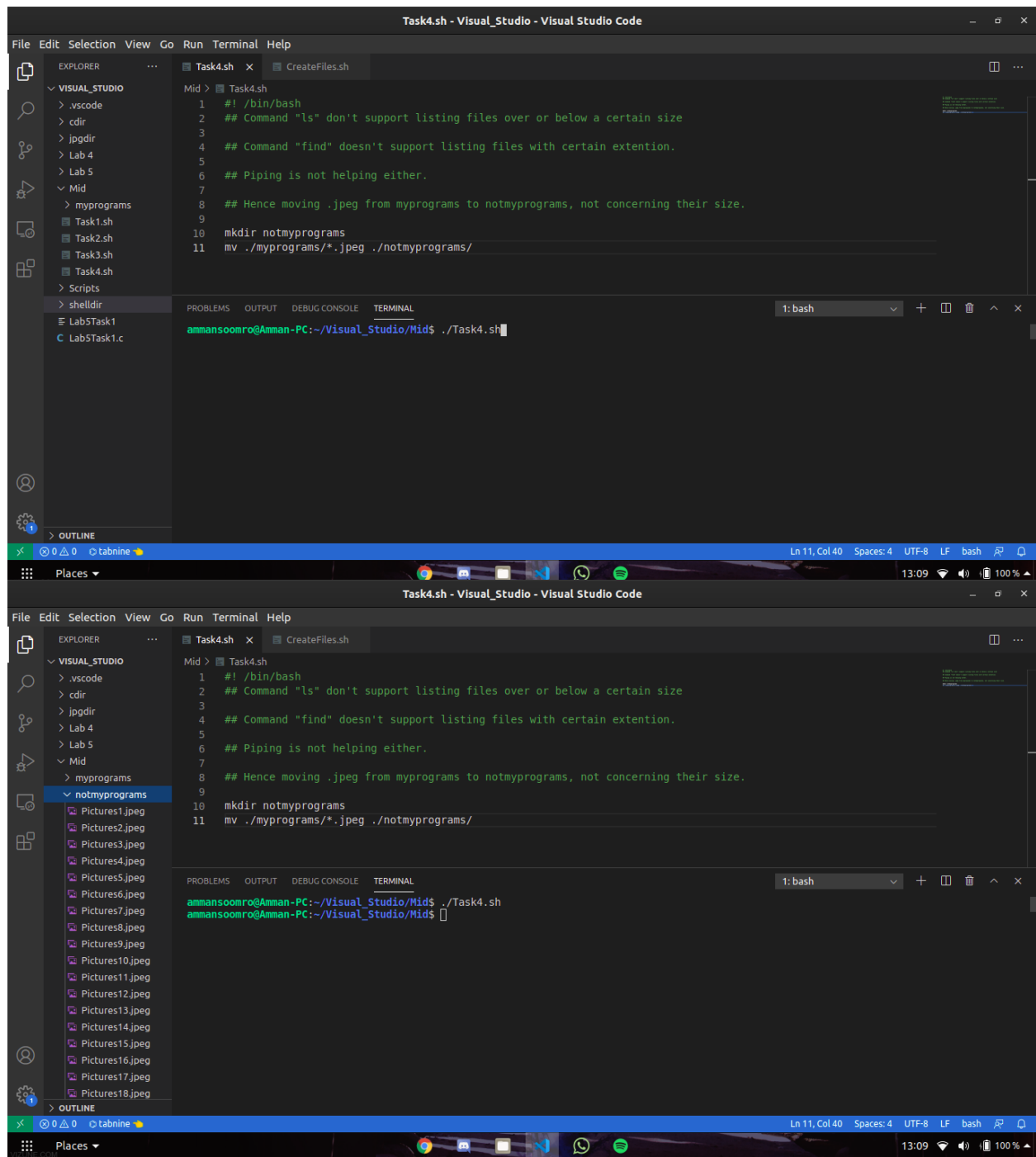
```
## Command "find" doesn't support listing files with certain extension.
```

```
## Piping is not helping either.
```

```
## Hence moving .jpeg from myprograms to notmyprograms, not concerning their size .
```

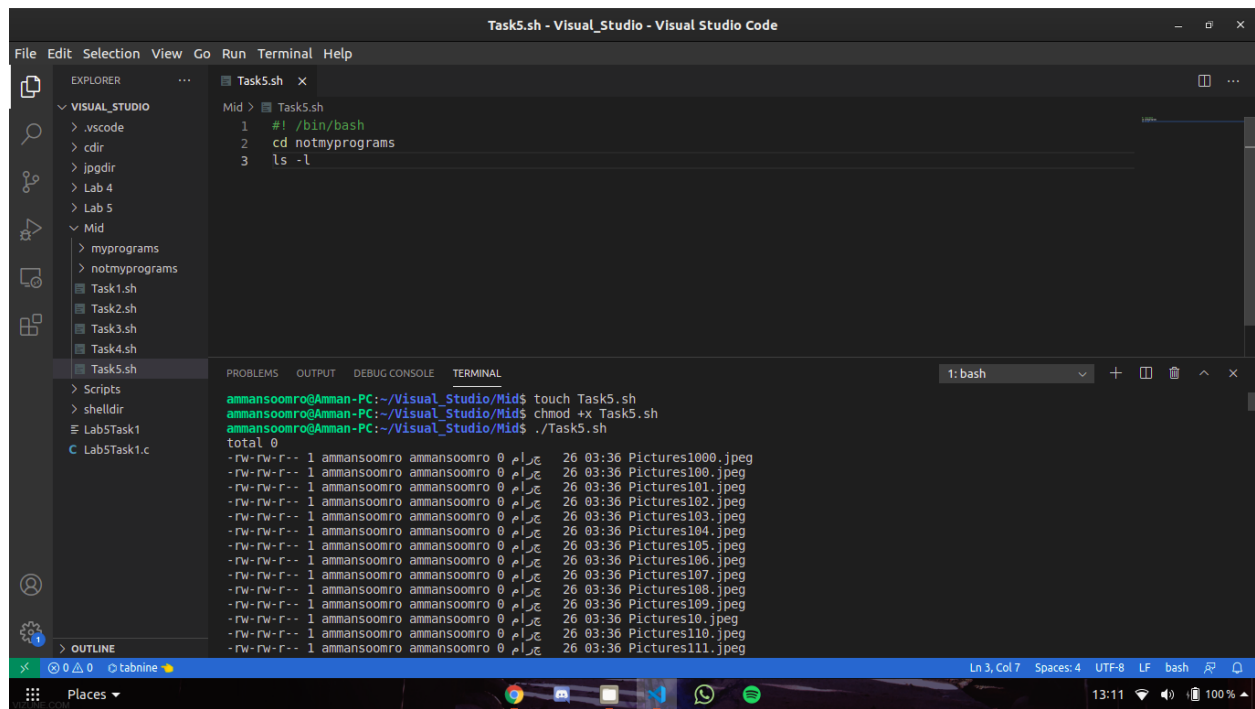
```
mkdir notmyprograms
```

```
mv ./myprograms/*.jpeg ./notmyprograms/
```



TASK 5

```
#!/bin/bash
cd notmyprograms
ls -l
```

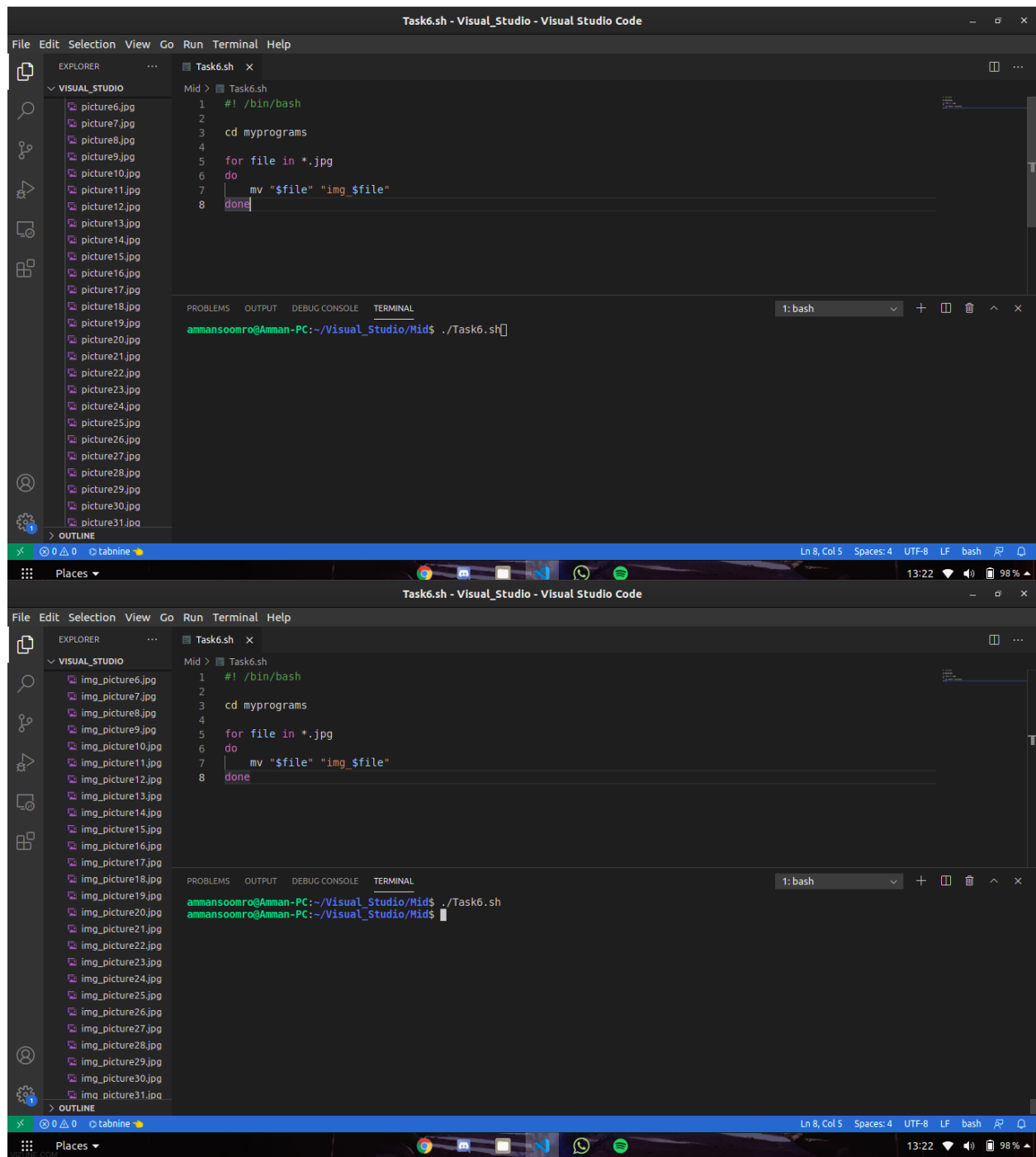


TASK 6

```
#!/bin/bash

cd myprograms

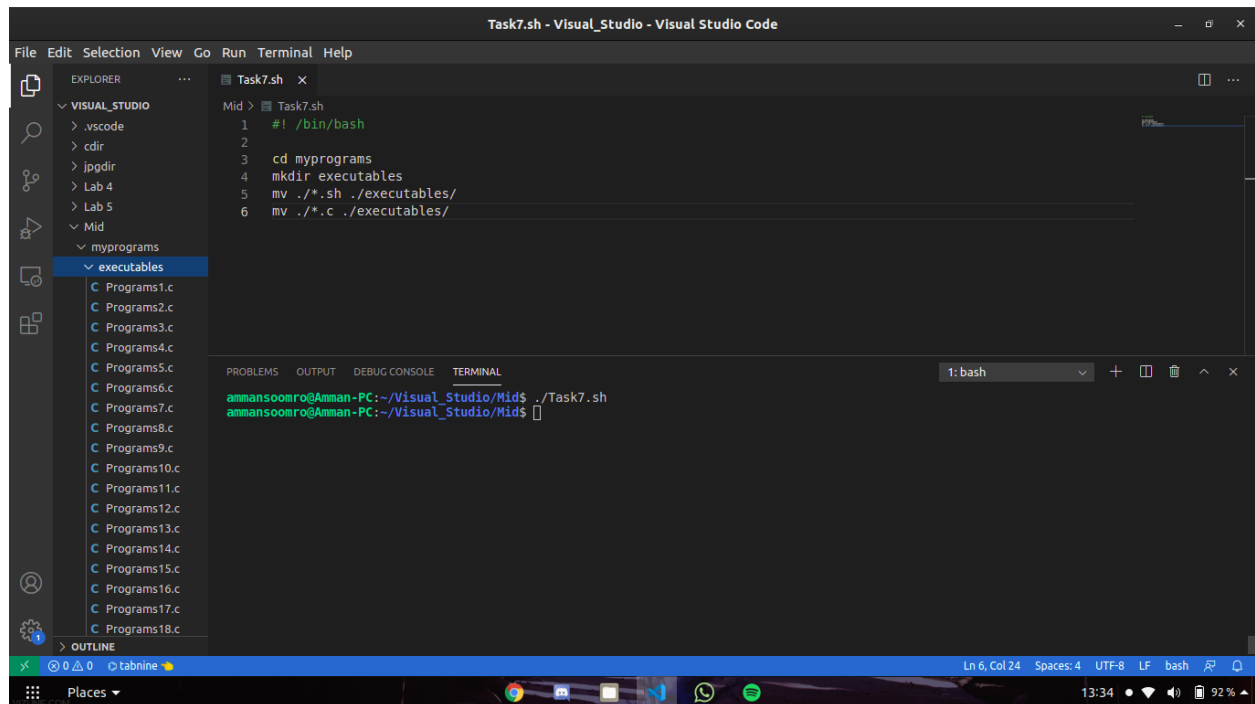
for file in *.jpg
do
    mv "$file" "img_$file"
done
```



TASK 7

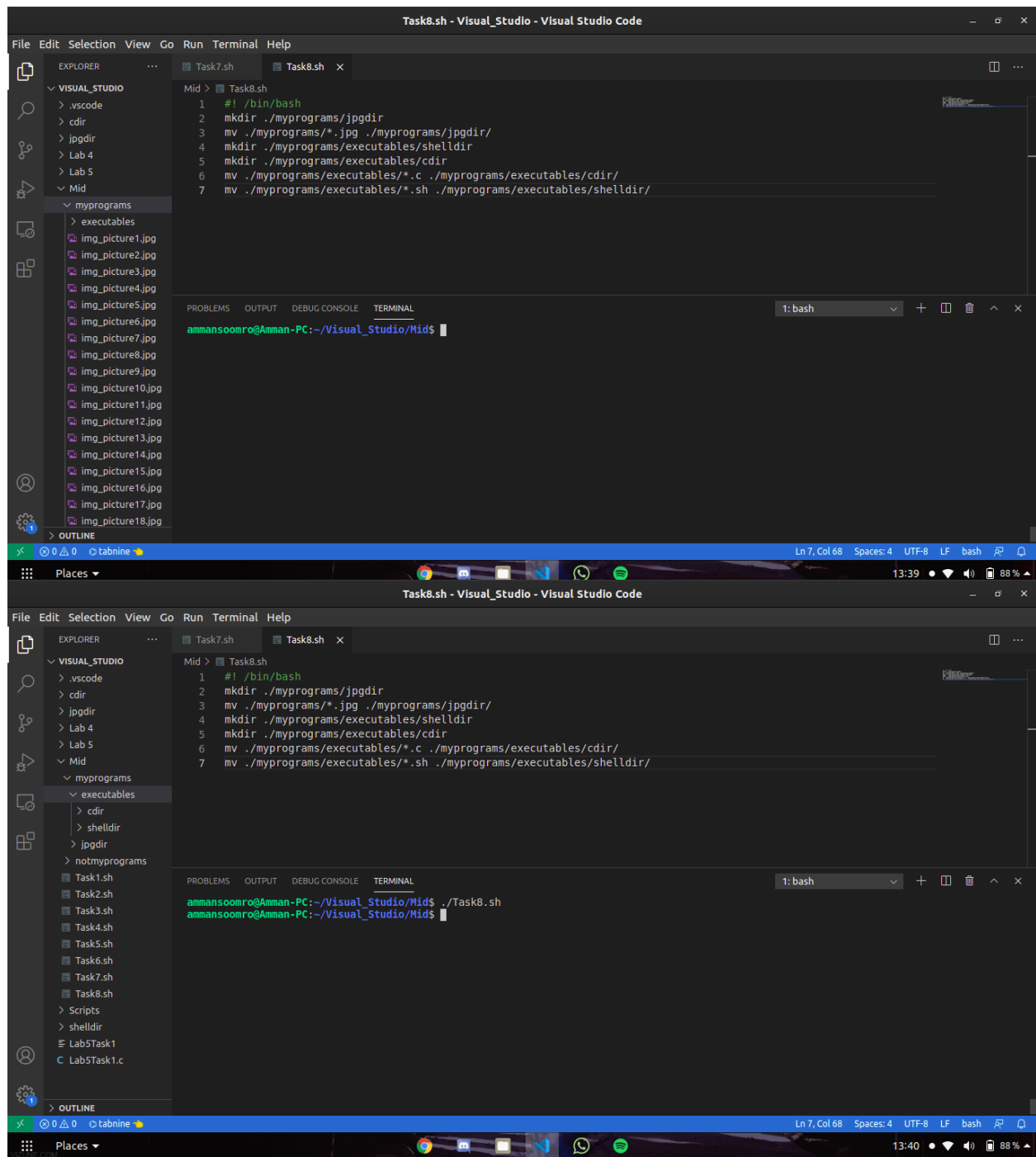
```
#!/bin/bash
cd myprograms
mkdir executables
mv ./*.sh ./executables/
```

```
mv ./*.c ./executables/
```



TASK 8

```
#!/bin/bash
mkdir ./myprograms/jpgdir
mv ./myprograms/*.jpg ./myprograms/jpgdir/
mkdir ./myprograms/executables/shelldir
mkdir ./myprograms/executables/cdir
mv ./myprograms/executables/*.c ./myprograms/executables/cdir/
mv ./myprograms/executables/*.sh ./myprograms/executables/shelldir/
```

TASK 9

```
#include <sys/types.h>
#include <sys/wait.h>
#include <unistd.h>
#include <stdio.h>
```

```

#include <stdlib.h>
#include <time.h>
#include <string.h>

int main()
{
    if (!fork())
    {
        sleep(1);
        exit(16);
    }
    else
    {
        if (!fork())
        {
            printf("Don't know linux directory for Mac address\n\n");
            exit(17);
        }
        else
        {
            if (!fork())
            {
                sleep(7);
                time_t T = time(NULL);
                struct tm tm = *localtime(&T);
                printf("System Date is: %02d/%02d/%04d\n", tm.tm_mday, tm.tm_mon
+ 1, tm.tm_year + 1900);
                printf("System Time is: %02d:%02d:%02d\n", tm.tm_hour, tm.tm_min,
tm.tm_sec);
                exit(20);
            }
            else
            {
                if (!fork())

```

```
    {
        printf("Parent ID: %d\n\n", getppid());
        exit(0);
    }
    else
    {
        for (int i = 0; i < 4; i++)
        {
            wait(NULL);
            if (i == 0)
            {
                printf("No Question Son ended.....\n");
            }
            else if (i == 1)
            {
                printf("\tSimple Son ended.....\n");
            }
            else if (i == 2)
            {
                printf("\t\tWise Son ended.....\n");
            }
            else if (i == 3)
            {
                printf("\t\t\tWicked Son Ended.....\n");
            }
        }
    }
}
}
```

