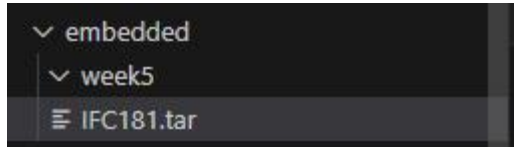
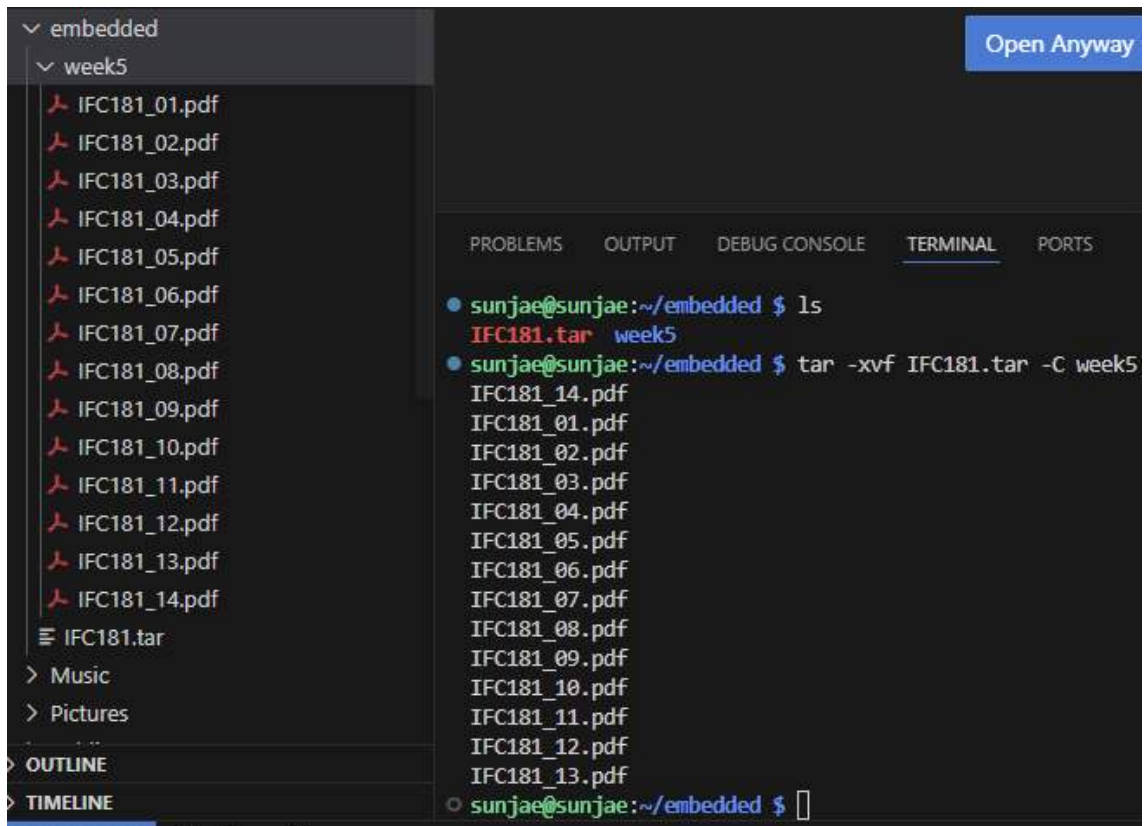


임베디드 5주차 과제 2020161123 최선재

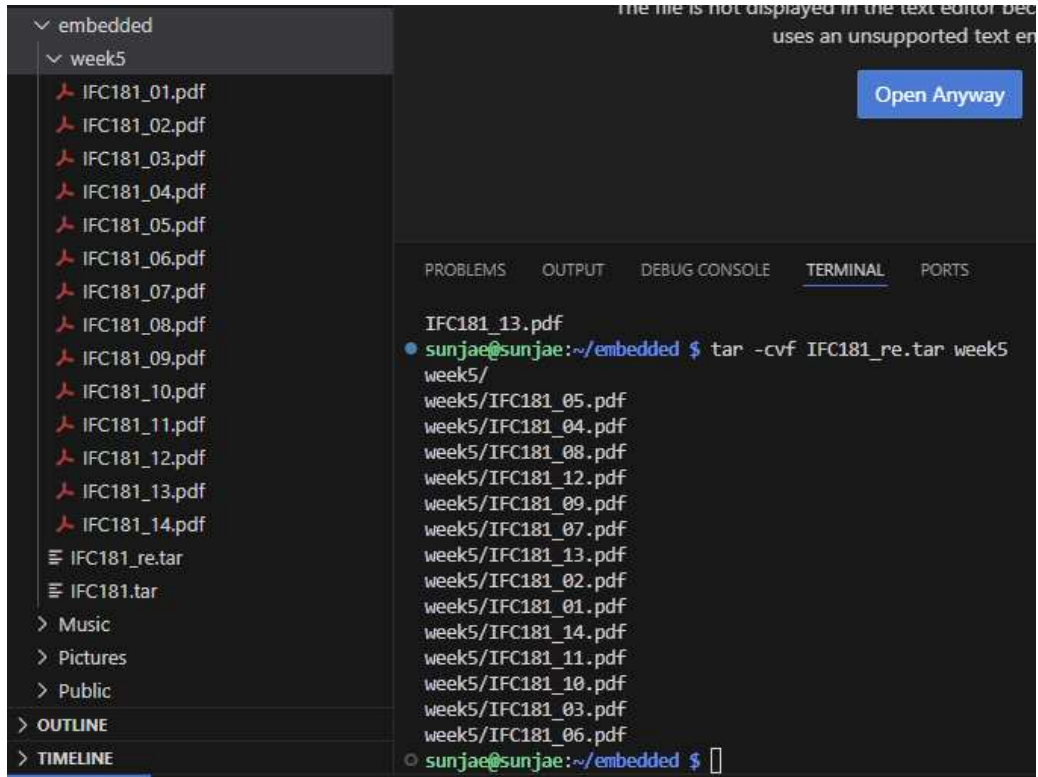
1. IFC181.tar 파일을 받아 ~/embedded/week5 로 옮긴다.



2. tar 명령으로 압축을 해제한다.



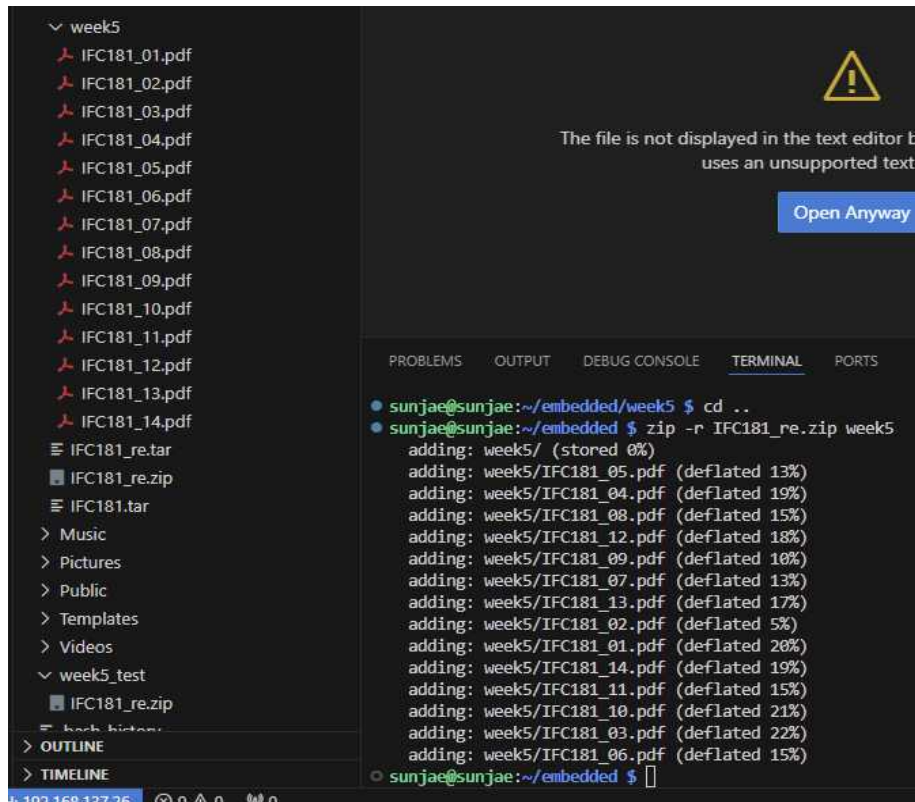
3. 2에서 압축해제된 파일들을 IFC181\_re.tar로 압축한다.



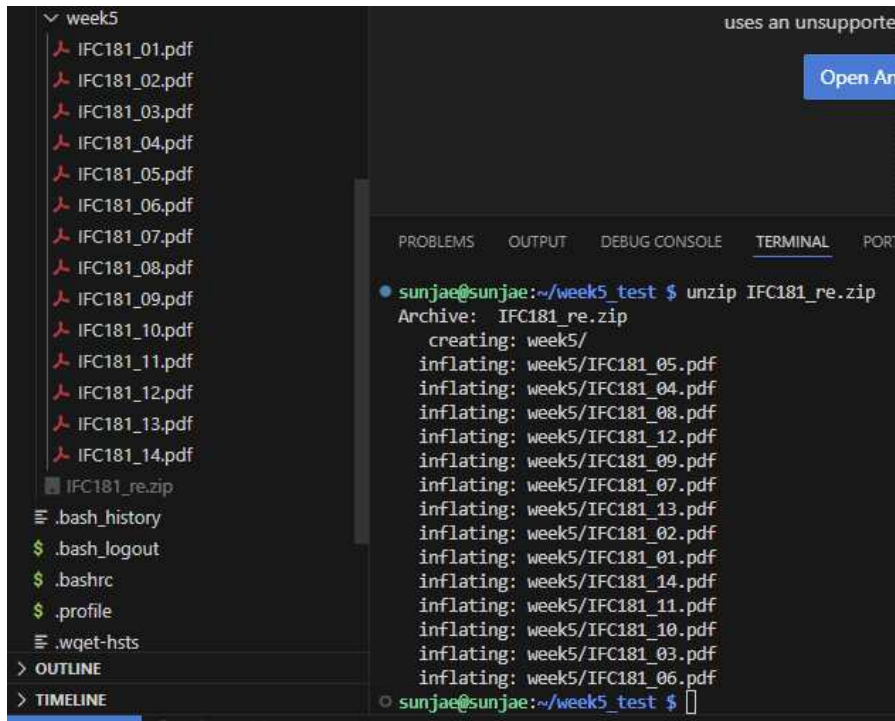
4. 2에서 압축해제된 파일들을 zip명령으로 IFC181\_re.zip으로 압축한다.

- 이때 zip 명령을 수행할 수 있도록 zip을 설치한다.

: sudo apt-get install zip



5. 4에서 나온 IFC181\_re.zip 파일을 unzip 명령을 통해 압축해제 한다.

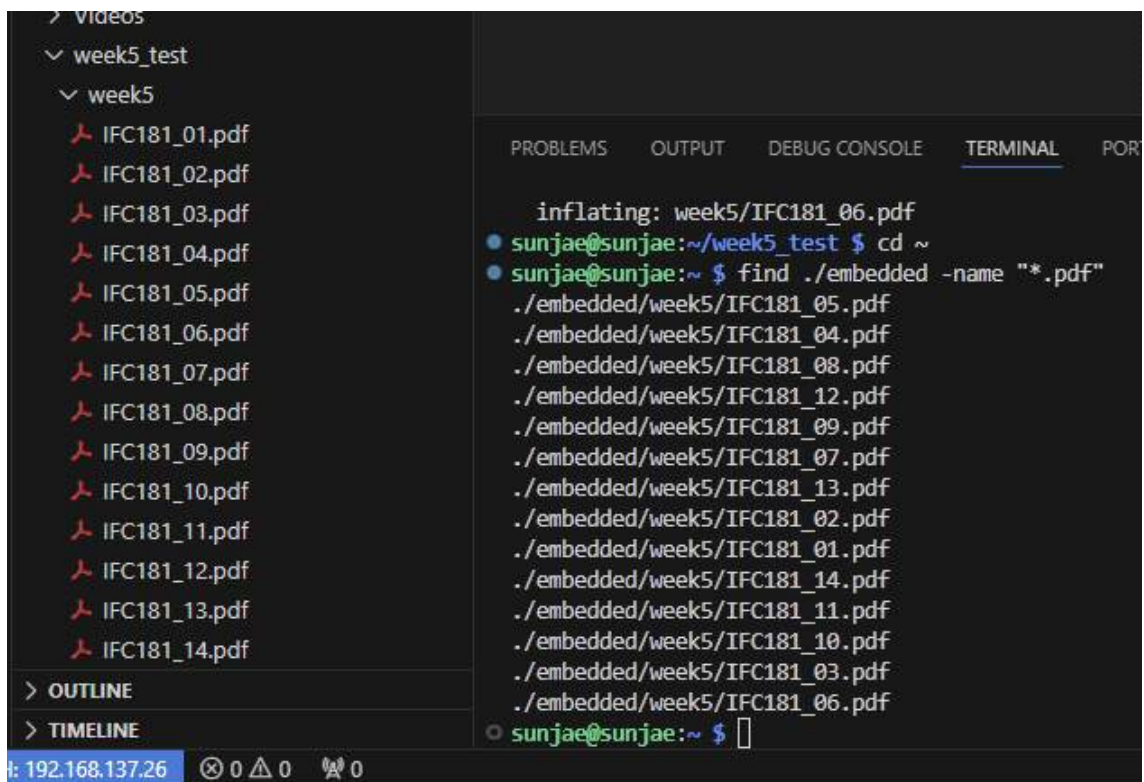


The screenshot shows the VS Code interface. On the left, the Explorer view displays a file tree with a folder named 'week5' containing 14 PDF files (IFC181\_01.pdf to IFC181\_14.pdf) and a file named 'IFC181\_re.zip'. Below the file tree are the 'OUTLINE' and 'TIMELINE' panels. The main editor area is empty. The 'TERMINAL' panel at the bottom shows the following output:

```
sunjae@sunjae:~/week5_test $ unzip IFC181_re.zip
Archive: IFC181_re.zip
  creating: week5/
  inflating: week5/IFC181_05.pdf
  inflating: week5/IFC181_04.pdf
  inflating: week5/IFC181_08.pdf
  inflating: week5/IFC181_12.pdf
  inflating: week5/IFC181_09.pdf
  inflating: week5/IFC181_07.pdf
  inflating: week5/IFC181_13.pdf
  inflating: week5/IFC181_02.pdf
  inflating: week5/IFC181_01.pdf
  inflating: week5/IFC181_14.pdf
  inflating: week5/IFC181_11.pdf
  inflating: week5/IFC181_10.pdf
  inflating: week5/IFC181_03.pdf
  inflating: week5/IFC181_06.pdf
sunjae@sunjae:~/week5_test $
```

<find 명령어 연습>

6. ~ (home) 디렉토리로 이동하고 find 명령을 통해 embedded폴더에서(하위폴더 포함) .pdf 파일을 찾는 명령을 수행해본다.



The screenshot shows the VS Code interface. On the left, the Explorer view displays a file tree with a folder named 'week5\_test' containing a folder named 'week5' which contains the same 14 PDF files as in the previous screenshot. Below the file tree are the 'OUTLINE' and 'TIMELINE' panels. The main editor area is empty. The 'TERMINAL' panel at the bottom shows the following output:

```
sunjae@sunjae:~/week5_test $ cd ~
sunjae@sunjae:~ $ find ./embedded -name "*.pdf"
./embedded/week5/IFC181_05.pdf
./embedded/week5/IFC181_04.pdf
./embedded/week5/IFC181_08.pdf
./embedded/week5/IFC181_12.pdf
./embedded/week5/IFC181_09.pdf
./embedded/week5/IFC181_07.pdf
./embedded/week5/IFC181_13.pdf
./embedded/week5/IFC181_02.pdf
./embedded/week5/IFC181_01.pdf
./embedded/week5/IFC181_14.pdf
./embedded/week5/IFC181_11.pdf
./embedded/week5/IFC181_10.pdf
./embedded/week5/IFC181_03.pdf
./embedded/week5/IFC181_06.pdf
sunjae@sunjae:~ $
```

7. 아래의 명령 결과가 동일한지 아닌지 결과를 보이고 동작 결과를 설명하시오  
innosm@innosm:~ \$find . -name \*.pdf

```
sunjae@sunjae:~ $ find . -name *.pdf
./week5_test/week5/IFC181_05.pdf
./week5_test/week5/IFC181_04.pdf
./week5_test/week5/IFC181_08.pdf
./week5_test/week5/IFC181_12.pdf
./week5_test/week5/IFC181_09.pdf
./week5_test/week5/IFC181_07.pdf
./week5_test/week5/IFC181_13.pdf
./week5_test/week5/IFC181_02.pdf
./week5_test/week5/IFC181_01.pdf
./week5_test/week5/IFC181_14.pdf
./week5_test/week5/IFC181_11.pdf
./week5_test/week5/IFC181_10.pdf
./week5_test/week5/IFC181_03.pdf
./week5_test/week5/IFC181_06.pdf
./Bookshelf/BeginnersGuide-4thEd-Eng_v2.pdf
./embedded/week5/IFC181_05.pdf
./embedded/week5/IFC181_04.pdf
./embedded/week5/IFC181_08.pdf
./embedded/week5/IFC181_12.pdf
./embedded/week5/IFC181_09.pdf
./embedded/week5/IFC181_07.pdf
./embedded/week5/IFC181_13.pdf
./embedded/week5/IFC181_02.pdf
./embedded/week5/IFC181_01.pdf
./embedded/week5/IFC181_14.pdf
./embedded/week5/IFC181_11.pdf
./embedded/week5/IFC181_10.pdf
./embedded/week5/IFC181_03.pdf
./embedded/week5/IFC181_06.pdf
sunjae@sunjae:~ $
```

pdf로 끝나는 파일을 찾아서 보여주었다



innosm@innosm:~ \$find ./ -name \*.pdf

```
● sunjae@sunjae:~ $ find ./ -name *.pdf
./week5_test/week5/IFC181_05.pdf
./week5_test/week5/IFC181_04.pdf
./week5_test/week5/IFC181_08.pdf
./week5_test/week5/IFC181_12.pdf
./week5_test/week5/IFC181_09.pdf
./week5_test/week5/IFC181_07.pdf
./week5_test/week5/IFC181_13.pdf
./week5_test/week5/IFC181_02.pdf
./week5_test/week5/IFC181_01.pdf
./week5_test/week5/IFC181_14.pdf
./week5_test/week5/IFC181_11.pdf
./week5_test/week5/IFC181_10.pdf
./week5_test/week5/IFC181_03.pdf
./week5_test/week5/IFC181_06.pdf
./Bookshelf/BeginnersGuide-4thEd-Eng_v2.pdf
./embedded/week5/IFC181_05.pdf
./embedded/week5/IFC181_04.pdf
./embedded/week5/IFC181_08.pdf
./embedded/week5/IFC181_12.pdf
./embedded/week5/IFC181_09.pdf
./embedded/week5/IFC181_07.pdf
./embedded/week5/IFC181_13.pdf
./embedded/week5/IFC181_02.pdf
./embedded/week5/IFC181_01.pdf
./embedded/week5/IFC181_14.pdf
./embedded/week5/IFC181_11.pdf
./embedded/week5/IFC181_10.pdf
./embedded/week5/IFC181_03.pdf
./embedded/week5/IFC181_06.pdf
sunjae@sunjae:~ $
```

pdf로 끝나는 파일을 찾아서 보여주었다

innosm@innosm:~ \$find -name \*.pdf

```
sunjae@sunjae:~ $ find -name *.pdf
find: '-name': 그런 파일이나 디렉터리가 없습니다
find: '*.pdf': 그런 파일이나 디렉터리가 없습니다
sunjae@sunjae:~ $
```

홈디렉토리에서 pdf파일을 찾는다

innosm@innosm:~ \$find ~ -name \*.pdf

```
sunjae@sunjae:~ $ find ~ -name *.pdf
/home/sunjae/week5_test/week5/IFC181_05.pdf
/home/sunjae/week5_test/week5/IFC181_04.pdf
/home/sunjae/week5_test/week5/IFC181_08.pdf
/home/sunjae/week5_test/week5/IFC181_12.pdf
/home/sunjae/week5_test/week5/IFC181_09.pdf
/home/sunjae/week5_test/week5/IFC181_07.pdf
/home/sunjae/week5_test/week5/IFC181_13.pdf
/home/sunjae/week5_test/week5/IFC181_02.pdf
/home/sunjae/week5_test/week5/IFC181_01.pdf
/home/sunjae/week5_test/week5/IFC181_14.pdf
/home/sunjae/week5_test/week5/IFC181_11.pdf
/home/sunjae/week5_test/week5/IFC181_10.pdf
/home/sunjae/week5_test/week5/IFC181_03.pdf
/home/sunjae/week5_test/week5/IFC181_06.pdf
/home/sunjae/Bookshelf/BeginnersGuide-4thEd-Eng_v2.pdf
/home/sunjae/embedded/week5/IFC181_05.pdf
/home/sunjae/embedded/week5/IFC181_04.pdf
/home/sunjae/embedded/week5/IFC181_08.pdf
/home/sunjae/embedded/week5/IFC181_12.pdf
/home/sunjae/embedded/week5/IFC181_09.pdf
/home/sunjae/embedded/week5/IFC181_07.pdf
/home/sunjae/embedded/week5/IFC181_13.pdf
/home/sunjae/embedded/week5/IFC181_02.pdf
/home/sunjae/embedded/week5/IFC181_01.pdf
/home/sunjae/embedded/week5/IFC181_14.pdf
/home/sunjae/embedded/week5/IFC181_11.pdf
/home/sunjae/embedded/week5/IFC181_10.pdf
/home/sunjae/embedded/week5/IFC181_03.pdf
/home/sunjae/embedded/week5/IFC181_06.pdf
sunjae@sunjae:~ $
```

pdf파일을 찾는다

innosm@innosm:~ \$find /home/innosm -name \*.pdf

```
sunjae@sunjae:~ $ find /home/innosm -name *.pdf
find: '/home/innosm': 그런 파일이나 디렉터리가 없습니다
sunjae@sunjae:~ $
```

innosm에 있는 pdf파일을 찾는다

8. ~ (home) 디렉토리로 이동하고, week5 폴더가 있는지 검색하려고 한다.  
적절한 명령을 수행하여 week5 폴더를 검색하고 결과를 보이시오.

```
sunjae@sunjae:~$ find . -type d -name "week5"
./week5_test/week5
./embedded/week5
sunjae@sunjae:~$
```

<파일 용량 확인>

9. 아래 명령을 수행한 결과를 보이시오.

df -h

```
sunjae@sunjae:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        15G  3.5G   11G  25% /
devtmpfs        1.8G     0  1.8G   0% /dev
tmpfs           1.9G     0  1.9G   0% /dev/shm
tmpfs           1.9G  8.6M  1.9G   1% /run
tmpfs           5.0M  4.0K  5.0M   1% /run/lock
tmpfs           1.9G     0  1.9G   0% /sys/fs/cgroup
/dev/mmcblk0p1  253M   49M  204M  20% /boot
tmpfs           384M  4.0K  384M   1% /run/user/1000
sunjae@sunjae:~$
```

10. 아래 명령을 수행한 결과를 보이시오.

cd ~

cd embedded

du -h

```
sunjae@sunjae:~/embedded$ du -h
4.0M  ./week5
12M   .
sunjae@sunjae:~/embedded$
```

11. 10번에서 현재 embedded 폴더의 총 사용량은(하위폴더 포함, 단위 표시)?  
12M



12. cd embedded/week5 를 수행하여 위치를 이동하고, 아래 명령을 차례로 수행하시오

1) df .

```
sunjae@sunjae:~/embedded/week5 $ df .
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/root        14986204 3570556 10754140  25% /
```

2) 이 폴더에 temp\_file 파일 생성하고 파일에 1을 기록

The screenshot shows a terminal window with a file explorer on the left and a terminal output on the right. The file explorer shows a directory structure with files like IFC181\_01.pdf through IFC181\_14.pdf, temp\_file, IFC181\_re.tar, and IFC181.tar. The terminal output shows the execution of several commands: cd embedded, du -h, cd ~, cd embedded/week5, df ., and df . > temp\_file. The df output shows the disk usage for the root filesystem and various tmpfs instances.

```
sunjae@sunjae:~/embedded $ cd embedded
sunjae@sunjae:~/embedded $ du -h
4.0M  ./week5
12M   .
sunjae@sunjae:~/embedded $ cd ~
sunjae@sunjae:~ $ cd embedded/week5
sunjae@sunjae:~/embedded/week5 $ df .
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/root        14986204 3570556 10754140  25% /
sunjae@sunjae:~/embedded/week5 $ df . > temp_file
sunjae@sunjae:~/embedded/week5 $
```

3) stat temp\_file 명령을 통해 파일의 크기를 확인

```
sunjae@sunjae:~/embedded/week5 $ stat temp_file
File: temp_file
Size: 109          Blocks: 8          IO Block: 4096   일반 파일
Device: b302h/45826d Inode: 266859      Links: 1
Access: (0644/-rw-r--r--)  Uid: ( 1000/  sunjae)   Gid: ( 1000/  sunjae)
Access: 2024-10-06 23:01:53.364029725 +0900
Modify: 2024-10-06 23:01:53.364029725 +0900
Change: 2024-10-06 23:01:53.364029725 +0900
Birth: -
```

4) df .

```
sunjae@sunjae:~/embedded/week5 $ df .
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/root        14986204 3570560  10754136  25% /
sunjae@sunjae:~/embedded/week5 $
```

1)과 4)에서 줄어든 용량과 3)에서 확인한 용량이 다르다면 그 이유는?

df. 는 전체 파일에서의 용량을 보여주고 stat temp\_file은 특정 파일의 크기를 보여주기 때문이다.

<cpu architecture>

13. 현재 사용하는 라즈비언 OS가 몇비트 시스템인지 확인하고 결과를 첨부하시오.

```
sunjae@sunjae:~/embedded/week5 $ uname -m
armv7l
sunjae@sunjae:~/embedded/week5 $
```

32비트이다.