

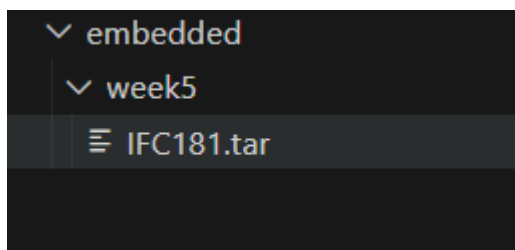
임베디드응용 및 실습

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

```
pi@pi:~/Downloads $ mkdir ~/embedded/week5
```

```
pi@pi:~/Downloads $ mv IFC181.tar ~/embedded/week5
```



2. tar 명령으로 압축을 해제한다.

```
pi@pi:~/embedded/week5 $ tar -xvf ~/embedded/week5/IFC181.tar
IFC181_14.pdf
IFC181_01.pdf
IFC181_02.pdf
IFC181_03.pdf
IFC181_04.pdf
IFC181_05.pdf
IFC181_06.pdf
IFC181_07.pdf
IFC181_08.pdf
IFC181_09.pdf
IFC181_10.pdf
IFC181_11.pdf
IFC181_12.pdf
IFC181_13.pdf
```



3. 2에서 압축해제된 파일들을 IFC181_re.tar로 압축한다.

```
pi@pi:~/embedded/week5 $ mkdir temp/
```

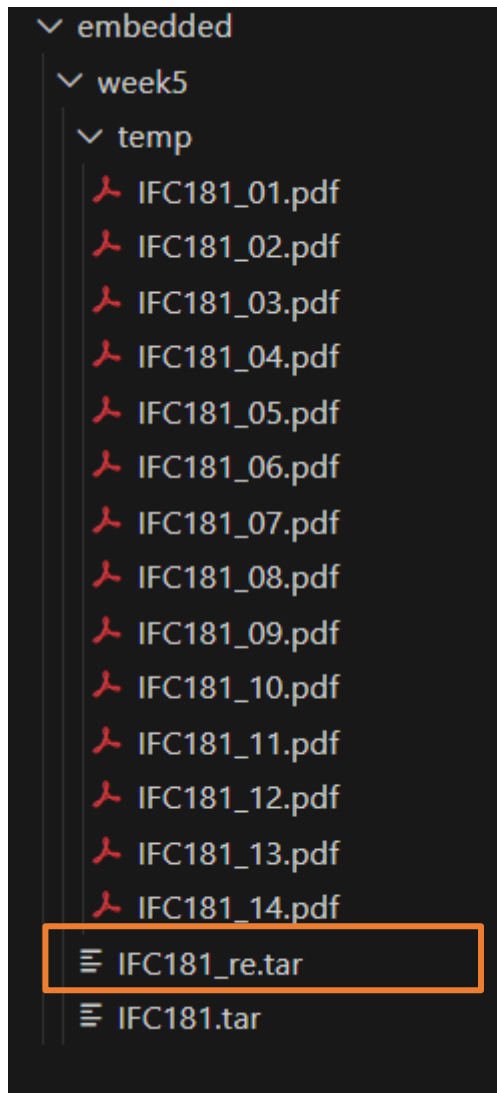
```
pi@pi:~/embedded/week5 $ ls
IFC181.tar  temp
```

```
pi@pi:~/embedded/week5 $ mv ~/embedded/week5/IFC181_*.pdf ~/embedded/week5/temp/
```

```
▼ embedded
  ▼ week5
    ▼ temp
      IFC181_01.pdf
      IFC181_02.pdf
      IFC181_03.pdf
      IFC181_04.pdf
      IFC181_05.pdf
      IFC181_06.pdf
      IFC181_07.pdf
      IFC181_08.pdf
      IFC181_09.pdf
      IFC181_10.pdf
      IFC181_11.pdf
      IFC181_12.pdf
      IFC181_13.pdf
      IFC181_14.pdf
      IFC181.tar
```

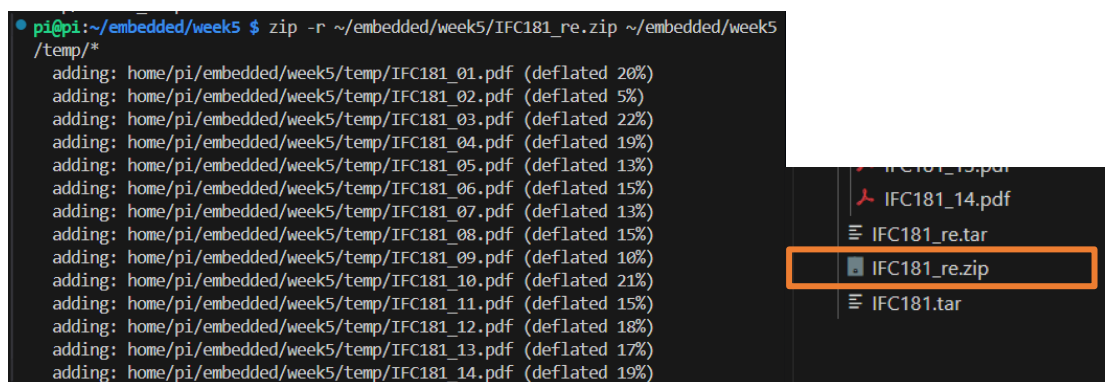
: temp 폴더 만들어서 압축해제된 파일 다 옮겨주기

```
pi@pi:~/embedded/week5 $ tar -cvf ~/embedded/week5/IFC181_re.tar -C ~/embedded/week5 temp
temp/
temp/IFC181_05.pdf
temp/IFC181_04.pdf
temp/IFC181_08.pdf
temp/IFC181_12.pdf
temp/IFC181_09.pdf
temp/IFC181_07.pdf
temp/IFC181_13.pdf
temp/IFC181_02.pdf
temp/IFC181_01.pdf
temp/IFC181_14.pdf
temp/IFC181_11.pdf
temp/IFC181_10.pdf
temp/IFC181_03.pdf
temp/IFC181_06.pdf
```



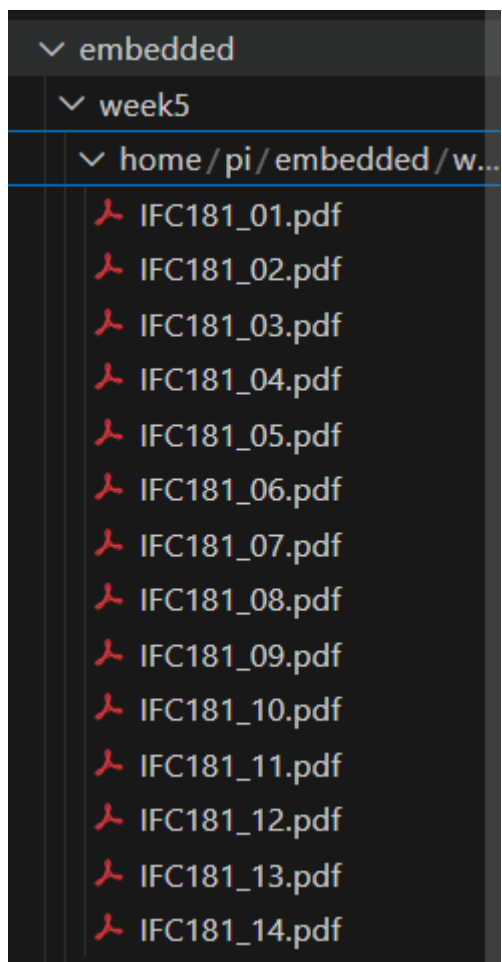
: 최종 압축 완료된 파일

4. 2에서 압축해제된 파일들을 zip명령으로 IFC181_re.zip으로 압축한다.



5. 4에서 나온 IFC181_re.zip 파일을 unzip 명령을 통해 압축해제 한다.

```
pi@pi:~/embedded/week5 $ unzip ~/embedded/week5/IFC181_re.zip -d ~/embedded/week5/  
Archive:  /home/pi/embedded/week5/IFC181_re.zip  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_01.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_02.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_03.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_04.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_05.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_06.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_07.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_08.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_09.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_10.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_11.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_12.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_13.pdf  
  inflating: /home/pi/embedded/week5/home/pi/embedded/week5/temp/IFC181_14.pdf
```



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

```
● pi@pi:~/embedded/week5 $ cd ~  
● pi@pi:~ $ find ~/embedded -name "*.pdf"  
/home/pi/embedded/week5/temp2/temp/IFC181_05.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_04.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_08.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_12.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_09.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_07.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_13.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_02.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_01.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_14.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_11.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_10.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_03.pdf  
/home/pi/embedded/week5/temp2/temp/IFC181_06.pdf  
/home/pi/embedded/week5/temp/IFC181_05.pdf  
/home/pi/embedded/week5/temp/IFC181_04.pdf  
/home/pi/embedded/week5/temp/IFC181_08.pdf  
/home/pi/embedded/week5/temp/IFC181_12.pdf  
/home/pi/embedded/week5/temp/IFC181_09.pdf  
/home/pi/embedded/week5/temp/IFC181_07.pdf  
/home/pi/embedded/week5/temp/IFC181_13.pdf  
/home/pi/embedded/week5/temp/IFC181_02.pdf  
/home/pi/embedded/week5/temp/IFC181_01.pdf  
/home/pi/embedded/week5/temp/IFC181_14.pdf  
/home/pi/embedded/week5/temp/IFC181_11.pdf  
/home/pi/embedded/week5/temp/IFC181_10.pdf  
/home/pi/embedded/week5/temp/IFC181_03.pdf  
/home/pi/embedded/week5/temp/IFC181_06.pdf
```

6. 아래의 명령 결과가 동일한지 아닌지 결과를 보이고 동작 결과를 설명하시오

⇒ 모두 동일하다.

1) \$find . -name *.pdf : 현재 디렉토리(.)에서 .pdf로 끝나는 모든 파일 찾기

```
pi@pi:~$ find . -name *.pdf
./Downloads/IFC181_05.pdf
./Downloads/IFC181_04.pdf
./Downloads/IFC181_08.pdf
./Downloads/IFC181_12.pdf
./Downloads/IFC181_09.pdf
./Downloads/IFC181_07.pdf
./Downloads/IFC181_13.pdf
./Downloads/IFC181_02.pdf
./Downloads/IFC181_01.pdf
./Downloads/IFC181_14.pdf
./Downloads/IFC181_11.pdf
./Downloads/IFC181_10.pdf
./Downloads/IFC181_03.pdf
./Downloads/IFC181_06.pdf
./Bookshelf/BeginnersGuide-4thEd-Eng_v2.pdf
./embedded/week5/temp2/temp/IFC181_05.pdf
./embedded/week5/temp2/temp/IFC181_04.pdf
./embedded/week5/temp2/temp/IFC181_08.pdf
./embedded/week5/temp2/temp/IFC181_12.pdf
./embedded/week5/temp2/temp/IFC181_09.pdf
./embedded/week5/temp2/temp/IFC181_07.pdf
./embedded/week5/temp2/temp/IFC181_13.pdf
./embedded/week5/temp2/temp/IFC181_02.pdf
./embedded/week5/temp2/temp/IFC181_01.pdf
./embedded/week5/temp2/temp/IFC181_14.pdf
./embedded/week5/temp2/temp/IFC181_11.pdf
./embedded/week5/temp2/temp/IFC181_10.pdf
./embedded/week5/temp2/temp/IFC181_03.pdf
./embedded/week5/temp2/temp/IFC181_06.pdf
./embedded/week5/temp/IFC181_05.pdf
./embedded/week5/temp/IFC181_04.pdf
./embedded/week5/temp/IFC181_08.pdf
./embedded/week5/temp/IFC181_12.pdf
./embedded/week5/temp/IFC181_09.pdf
./embedded/week5/temp/IFC181_07.pdf
./embedded/week5/temp/IFC181_13.pdf
./embedded/week5/temp/IFC181_11.pdf
./embedded/week5/temp/IFC181_10.pdf
./embedded/week5/temp/IFC181_03.pdf
./embedded/week5/temp/IFC181_06.pdf
./embedded/week5/temp/IFC181_05.pdf
./embedded/week5/temp/IFC181_04.pdf
./embedded/week5/temp/IFC181_08.pdf
./embedded/week5/temp/IFC181_12.pdf
./embedded/week5/temp/IFC181_09.pdf
./embedded/week5/temp/IFC181_07.pdf
./embedded/week5/temp/IFC181_13.pdf
./embedded/week5/temp/IFC181_11.pdf
./embedded/week5/temp/IFC181_10.pdf
./embedded/week5/temp/IFC181_03.pdf
./embedded/week5/temp/IFC181_06.pdf
```

2) find ./ -name *.pdf : 현재 디렉토리(./)에서 .pdf로 끝나는 모든 파일 찾기

```
pi@pi:~$ find ./ -name *.pdf
./Downloads/IFC181_05.pdf
./Downloads/IFC181_04.pdf
./Downloads/IFC181_08.pdf
./Downloads/IFC181_12.pdf
./Downloads/IFC181_09.pdf
./Downloads/IFC181_07.pdf
./Downloads/IFC181_13.pdf
./Downloads/IFC181_02.pdf
./Downloads/IFC181_01.pdf
./Downloads/IFC181_14.pdf
./Downloads/IFC181_11.pdf
./Downloads/IFC181_10.pdf
./Downloads/IFC181_03.pdf
./Downloads/IFC181_06.pdf
./Bookshelf/BeginnersGuide-4thEd-Eng_v2.pdf
./embedded/week5/temp2/temp/IFC181_05.pdf
./embedded/week5/temp2/temp/IFC181_04.pdf
./embedded/week5/temp2/temp/IFC181_08.pdf
./embedded/week5/temp2/temp/IFC181_12.pdf
./embedded/week5/temp2/temp/IFC181_09.pdf
./embedded/week5/temp2/temp/IFC181_07.pdf
./embedded/week5/temp2/temp/IFC181_13.pdf
./embedded/week5/temp2/temp/IFC181_02.pdf
./embedded/week5/temp2/temp/IFC181_01.pdf
./embedded/week5/temp2/temp/IFC181_14.pdf
./embedded/week5/temp2/temp/IFC181_11.pdf
./embedded/week5/temp2/temp/IFC181_10.pdf
./embedded/week5/temp2/temp/IFC181_03.pdf
./embedded/week5/temp2/temp/IFC181_06.pdf
./embedded/week5/temp/IFC181_05.pdf
./embedded/week5/temp/IFC181_04.pdf
./embedded/week5/temp/IFC181_08.pdf
./embedded/week5/temp/IFC181_12.pdf
./embedded/week5/temp/IFC181_09.pdf
./embedded/week5/temp/IFC181_07.pdf
./embedded/week5/temp/IFC181_13.pdf
./embedded/week5/temp/IFC181_11.pdf
./embedded/week5/temp/IFC181_10.pdf
./embedded/week5/temp/IFC181_03.pdf
./embedded/week5/temp/IFC181_06.pdf
```

- 3) \$find -name *.pdf : 현재 디렉토리에서 .pdf로 끝나는 파일 찾기, -name 옵션 다음에 오는 *.pdf는 셸에서 확장

```
pi@pi:~$ find -name *.pdf
./Downloads/IFC181_05.pdf
./Downloads/IFC181_04.pdf
./Downloads/IFC181_08.pdf
./Downloads/IFC181_12.pdf
./Downloads/IFC181_09.pdf
./Downloads/IFC181_07.pdf
./Downloads/IFC181_13.pdf
./Downloads/IFC181_02.pdf
./Downloads/IFC181_01.pdf
./Downloads/IFC181_14.pdf
./Downloads/IFC181_11.pdf
./Downloads/IFC181_10.pdf
./Downloads/IFC181_03.pdf
./Downloads/IFC181_06.pdf
./Bookshelf/BeginnersGuide-4thEd-Eng_v2.pdf
./embedded/week5/temp2/temp/IFC181_05.pdf
./embedded/week5/temp2/temp/IFC181_04.pdf
./embedded/week5/temp2/temp/IFC181_08.pdf
./embedded/week5/temp2/temp/IFC181_12.pdf
./embedded/week5/temp2/temp/IFC181_09.pdf
./embedded/week5/temp2/temp/IFC181_07.pdf
./embedded/week5/temp2/temp/IFC181_13.pdf
./embedded/week5/temp2/temp/IFC181_02.pdf
./embedded/week5/temp2/temp/IFC181_01.pdf
./embedded/week5/temp2/temp/IFC181_14.pdf
./embedded/week5/temp2/temp/IFC181_11.pdf
./embedded/week5/temp2/temp/IFC181_10.pdf
./embedded/week5/temp2/temp/IFC181_03.pdf
./embedded/week5/temp2/temp/IFC181_06.pdf
./embedded/week5/temp/IFC181_05.pdf
./embedded/week5/temp/IFC181_04.pdf
./embedded/week5/temp/IFC181_08.pdf
./embedded/week5/temp/IFC181_12.pdf
./embedded/week5/temp/IFC181_09.pdf
./embedded/week5/temp/IFC181_07.pdf
./embedded/week5/temp/IFC181_13.pdf
./embedded/week5/temp/IFC181_02.pdf
./embedded/week5/temp/IFC181_01.pdf
./temp/IFC181_05.pdf
./temp/IFC181_04.pdf
./temp/IFC181_08.pdf
./temp/IFC181_12.pdf
./temp/IFC181_09.pdf
./temp/IFC181_07.pdf
./temp/IFC181_13.pdf
./temp/IFC181_02.pdf
./temp/IFC181_01.pdf
./temp/IFC181_14.pdf
./temp/IFC181_11.pdf
./temp/IFC181_10.pdf
./temp/IFC181_03.pdf
./temp/IFC181_06.pdf
```

- 4) \$find ~ -name *.pdf : 홈 디렉토리(~)에서 .pdf로 끝나는 모든 파일 찾기

```
pi@pi:~$ find ~ -name *.pdf
/home/pi/Downloads/IFC181_05.pdf
/home/pi/Downloads/IFC181_04.pdf
/home/pi/Downloads/IFC181_08.pdf
/home/pi/Downloads/IFC181_12.pdf
/home/pi/Downloads/IFC181_09.pdf
/home/pi/Downloads/IFC181_07.pdf
/home/pi/Downloads/IFC181_13.pdf
/home/pi/Downloads/IFC181_02.pdf
/home/pi/Downloads/IFC181_01.pdf
/home/pi/Downloads/IFC181_14.pdf
/home/pi/Downloads/IFC181_11.pdf
/home/pi/Downloads/IFC181_10.pdf
/home/pi/Downloads/IFC181_03.pdf
/home/pi/Downloads/IFC181_06.pdf
/home/pi/Bookshelf/BeginnersGuide-4thEd-Eng_v2.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_05.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_04.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_08.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_12.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_09.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_07.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_13.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_02.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_01.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_14.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_11.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_10.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_03.pdf
/home/pi/embedded/week5/temp2/temp/IFC181_06.pdf
/home/pi/embedded/week5/temp/IFC181_05.pdf
/home/pi/embedded/week5/temp/IFC181_04.pdf
/home/pi/embedded/week5/temp/IFC181_08.pdf
/home/pi/embedded/week5/temp/IFC181_12.pdf
/home/pi/embedded/week5/temp/IFC181_09.pdf
/home/pi/embedded/week5/temp/IFC181_07.pdf
/home/pi/embedded/week5/temp/IFC181_13.pdf
/home/pi/embedded/week5/temp/IFC181_02.pdf
/home/pi/embedded/week5/temp/IFC181_01.pdf
./temp/IFC181_05.pdf
./temp/IFC181_04.pdf
./temp/IFC181_08.pdf
./temp/IFC181_12.pdf
./temp/IFC181_09.pdf
./temp/IFC181_07.pdf
./temp/IFC181_13.pdf
./temp/IFC181_02.pdf
./temp/IFC181_01.pdf
./temp/IFC181_14.pdf
./temp/IFC181_11.pdf
./temp/IFC181_10.pdf
./temp/IFC181_03.pdf
./temp/IFC181_06.pdf
```


- 5) \$find /home/innosm -name *.pdf : 지정된 절대 경로(/home/pi)에서 .pdf로 끝나는 모든 파일 찾기

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

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

```
pi@pi:~$ cd ~
pi@pi:~$ find . -type d -name "week5"
./embedded/week5
```

9. 아래 명령을 수행한 결과를 보이시오.

df -h

```
pi@pi:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        15G   4.1G   9.7G   30% /
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
```


10. 아래 명령을 수행한 결과를 보이시오.

cd ~

cd embedded

du -h

```
pi@pi:~ $ cd ~
pi@pi:~ $ cd embedded
pi@pi:~/embedded $ du -h
4.0M    ./week5/temp2/temp
4.0M    ./week5/temp2
4.0M    ./week5/temp
20M     ./week5
20M     .
```

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

사용량 : 20M

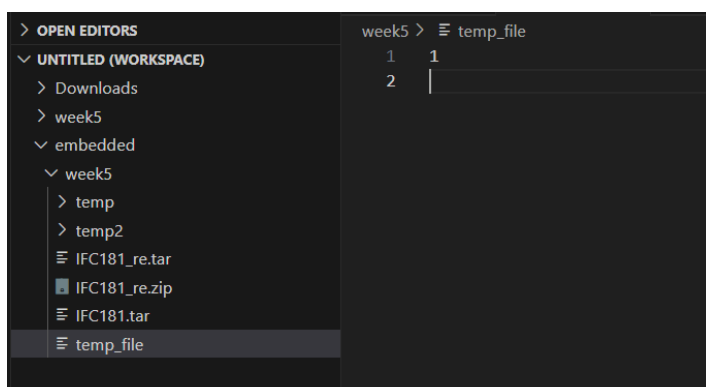
12. cd embedded/week5 를 수행하여 위치를 이동하고, 아래 명령을 차례로 수행하시오

1) df .

```
pi@pi:~/embedded $ cd ~/embedded/week5
pi@pi:~/embedded/week5 $ df .
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/root        14986204 4250396  10074300  30% /
```

2) 이 폴더에 temp_file 파일 생성하고 파일에 1을 기록

```
pi@pi:~/embedded/week5 $ echo 1 > temp_file
```



3) stat temp_file 명령을 통해 파일의 크기를 확인

```
pi@pi:~/embedded/week5 $ stat temp_file
  File: temp_file
  Size: 2          Blocks: 8          IO Block: 4096   일반 파일
Device: b302h/45826d Inode: 393299       Links: 1
Access: (0644/-rw-r--r--)  Uid: ( 1000/   pi)   Gid: ( 1000/   pi)
Access: 2024-10-09 00:31:34.761473304 +0900
Modify: 2024-10-09 00:31:34.761473304 +0900
Change: 2024-10-09 00:31:34.761473304 +0900
 Birth: -
```

4) df .

```
pi@pi:~/embedded/week5 $ df .
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/root        14986204 4250400  10074296  30% /
```

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

Df . 명령어는 현재 파일 시스템의 디스크 사용량을 보여준다. 출력에서 Used 컬럼의 값이 4,250,396에서 4,250,400으로 증가했다. 이 변화는 파일 시스템에서 사용 중인 블록 수의 증가를 나타낸다.

Stat temp_file 명령어는 temp_file의 정보와 크기를 보여준다. 크기는 2바이트이다. 하지만 블록 단위로 저장되어 blocks의 값은 8이다.

파일이 생성되면 해당 파일에 대해 할당된 블록이 디스크에 사용중으로 표시되어 Used의 값이 증가한다. 따라서 디스크 사용량이 달라졌다.

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

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

라즈비안 OS는 32비트 ARM 시스템이다.