

Xilinx Zynq FPGA, TI DSP, MCU 기반의 프로그래밍 및 회로 설계 전문가 과정

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01

18일차 내용 복습

```
Terminal ① alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim
cat_implementation.c:16:1: error: expected identifier or '(' before ')' token
}
^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_implementation.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc cat_implementation.c
cat_implementation.c: In function 'main':
cat_implementation.c:10:3: warning: implicit declaration of function 'usleep' [-Wimplicit-function-declaration]
    usleep(1000000);
^
cat_implementation.c: At top level:
cat_implementation.c:14:2: warning: data definition has no type or storage class
    fclose(fp);
^
cat_implementation.c:14:2: warning: type defaults to 'int' in declaration of 'fclose' [-Wimplicit-int]
cat_implementation.c:14:2: warning: parameter names (without types) in function
declaration
cat_implementation.c:15:2: error: expected identifier or '(' before 'return'
    return 0;
^
cat_implementation.c:16:1: error: expected identifier or '(' before ')' token
}
^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_implementation.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc cat_implementation.c
cat_implementation.c: In function 'main':
cat_implementation.c:10:3: warning: implicit declaration of function 'usleep' [-Wimplicit-function-declaration]
    usleep(1000000);
^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
Segmentation fault (core dumped)
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi mycat.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
#include <stdio.h>

int main(vod)
{
    return 0;
}
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$
```



01

18일차 내용 복습



The screenshot shows a terminal window titled "Terminal" running on a Linux desktop. The terminal window has a dark background and displays the following C code:

```
#include <stdio.h>
int main(void)
{
    FILE *fp = fopen("mycat.c", "r");
    char buf[1024] = "\0";
    int ret;
    while(ret=fread(buf, 1, sizeof(buf), fp))
    {
        usleep(1000000);
        fwrite(buf, 1, ret, stdout);
    }
    fclose(fp);
    return 0;
}
```

The terminal window is located in the top panel of the desktop environment. To its left is a vertical dock containing icons for various applications, including a terminal, file manager, browser, and system settings.



01

18일차 내용 복습

```
Terminal alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim
^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
Segmentation fault (core dumped)
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi mycat.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
#include <stdio.h>

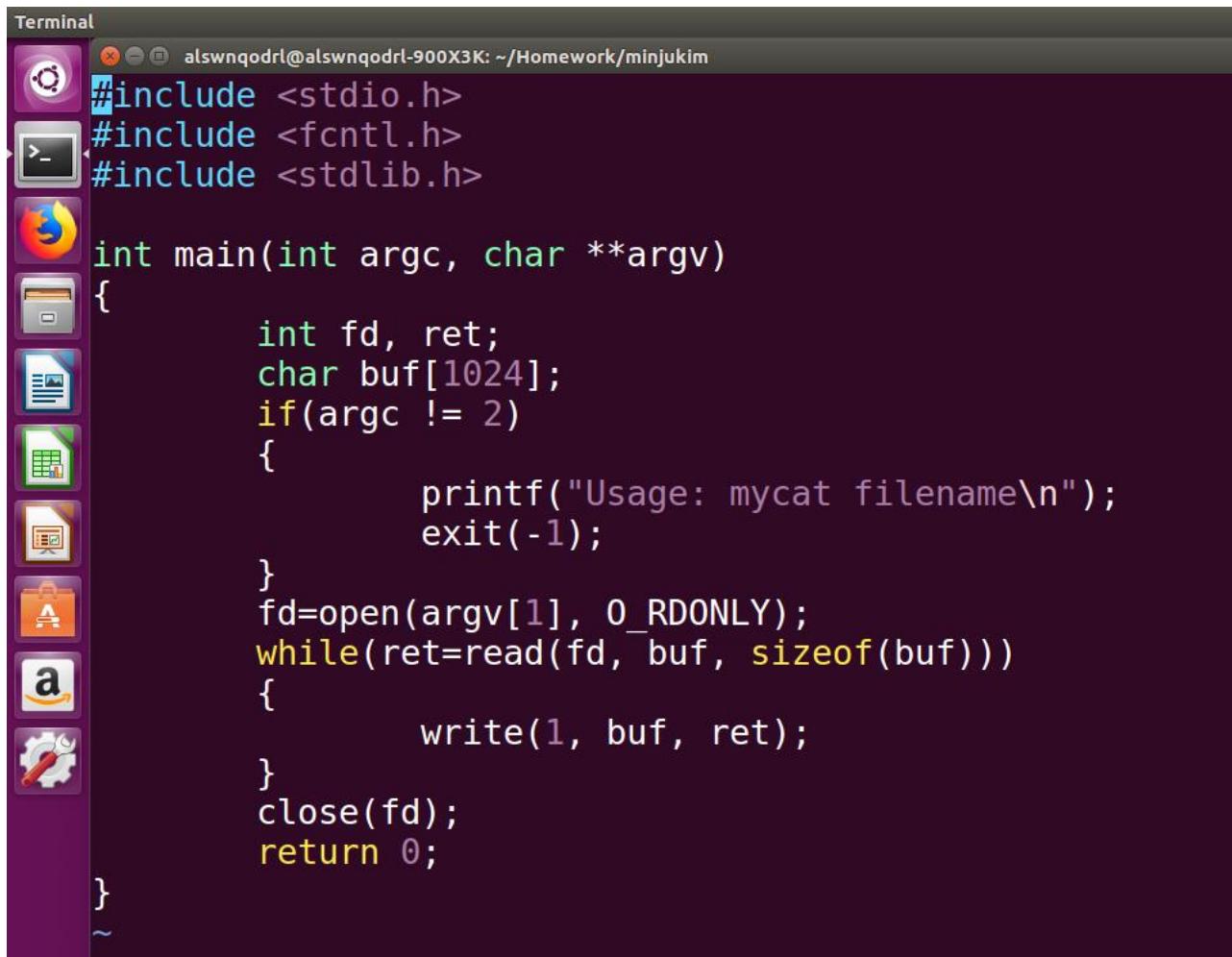
int main(vod)
{
    return 0;
}
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_implementation.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_implementation_syscall.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_implementation.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_implementation_syscall.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc cat_implementation_syscall.c
cat_implementation_syscall.c: In function 'main':
cat_implementation_syscall.c:15:12: warning: implicit declaration of function 'read' [-Wimplicit-function-declaration]
    while(ret=read(fd, buf, sizeof(buf)))
        ^
cat_implementation_syscall.c:17:3: warning: implicit declaration of function 'write' [-Wimplicit-function-declaration]
    write(1, buf, ret);
    ^
cat_implementation_syscall.c:19:2: warning: implicit declaration of function 'close' [-Wimplicit-function-declaration]
    close(fd);
    ^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
Usage: mycat filename
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out mycat.c
#include <stdio.h>

int main(vod)
{
    return 0;
}
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$
```



01

18일차 내용 복습



The screenshot shows a terminal window titled "Terminal" with the command "alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim". The terminal displays the following C code:

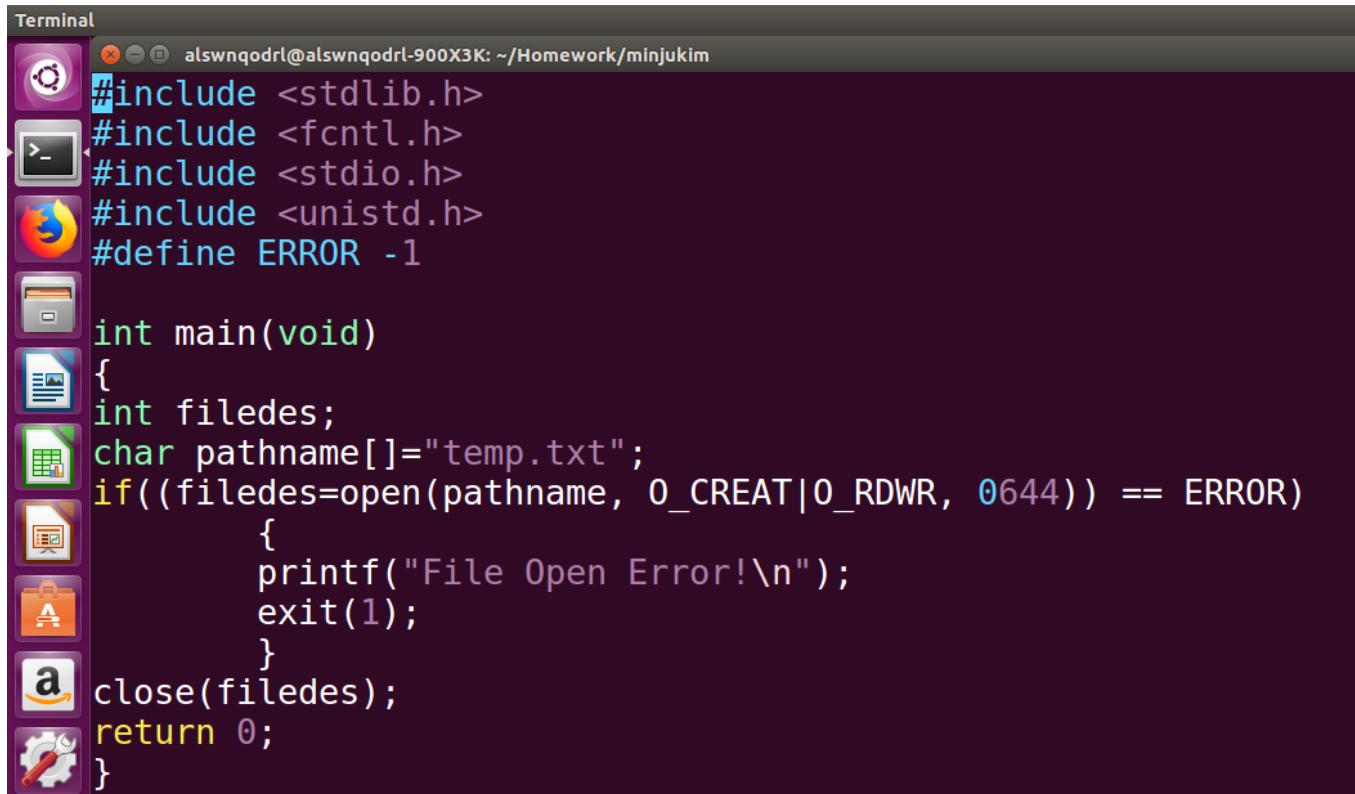
```
#include <stdio.h>
#include <fcntl.h>
#include <stdlib.h>

int main(int argc, char **argv)
{
    int fd, ret;
    char buf[1024];
    if(argc != 2)
    {
        printf("Usage: mycat filename\n");
        exit(-1);
    }
    fd=open(argv[1], O_RDONLY);
    while(ret=read(fd, buf, sizeof(buf)))
    {
        write(1, buf, ret);
    }
    close(fd);
    return 0;
}
```



01

18일차 내용 복습



```
Terminal
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim
#include <stdlib.h>
#include <fcntl.h>
#include <stdio.h>
#include <unistd.h>
#define ERROR -1

int main(void)
{
    int filedes;
    char pathname[]="temp.txt";
    if((filedes=open(pathname, O_CREAT|O_RDWR, 0644)) == ERROR)
    {
        printf("File Open Error!\n");
        exit(1);
    }
    close(filedes);
    return 0;
}
```



01

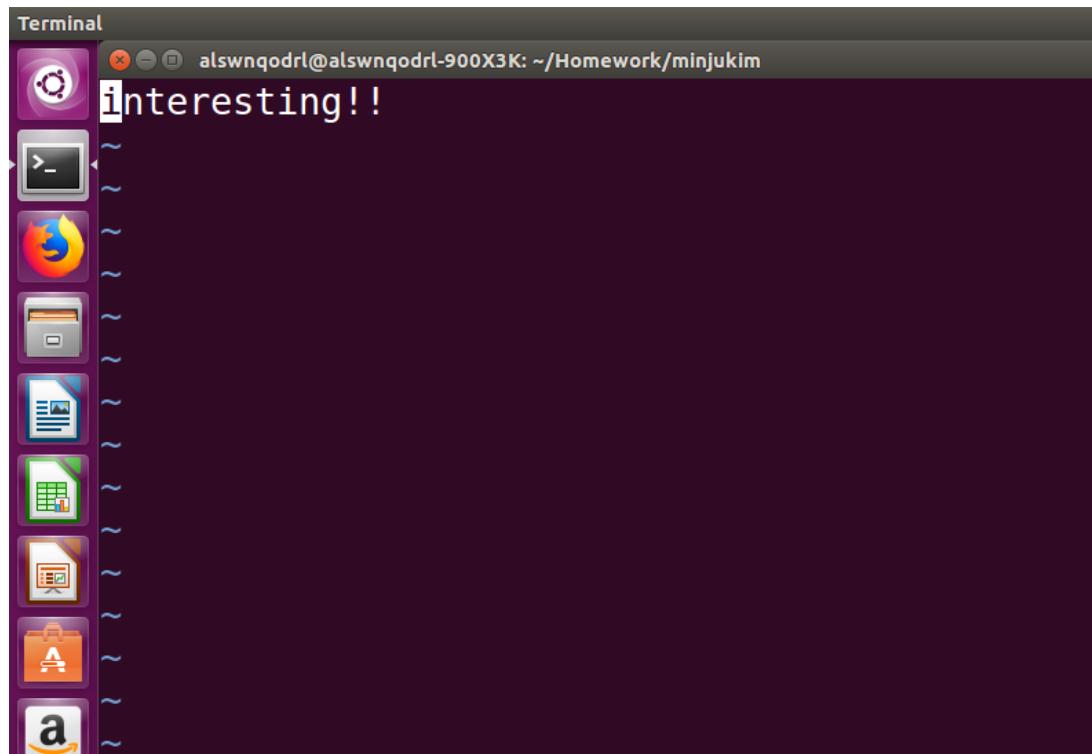
18일차 내용 복습

```
Terminal alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim
a.out      file_io4.c  homework10.pdf    homework5.pptx.pdf  temp.txt
book1.c    h1.c       homework11.pdf    homework6.pptx.pdf  tri1.c
book2.c    h2.c       homework14.pdf    homework8.pptx.pdf  tri2.c
data1.txt  h3.c       Homework1.pdf    homework9.pdf
data2.txt  h5.c       Homework2.pdf    prepare
file_io2.c h6.c       homework3.pptx.pdf print_message.c
file_io3.c Homework   homework4.pptx.pdf temp2.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io4.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ rm -rf temp2.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ rm -rf templ1.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io4.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi templ1.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io4.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ls
a.out      file_io4.c  homework10.pdf    homework5.pptx.pdf  temp2.txt
book1.c    h1.c       homework11.pdf    homework6.pptx.pdf  temp.txt
book2.c    h2.c       homework14.pdf    homework8.pptx.pdf  tri1.c
data1.txt  h3.c       Homework1.pdf    homework9.pdf
data2.txt  h5.c       Homework2.pdf    prepare
file_io2.c h6.c       homework3.pptx.pdf print_message.c
file_io3.c Homework   homework4.pptx.pdf templ1.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi temp2.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ █
```



01

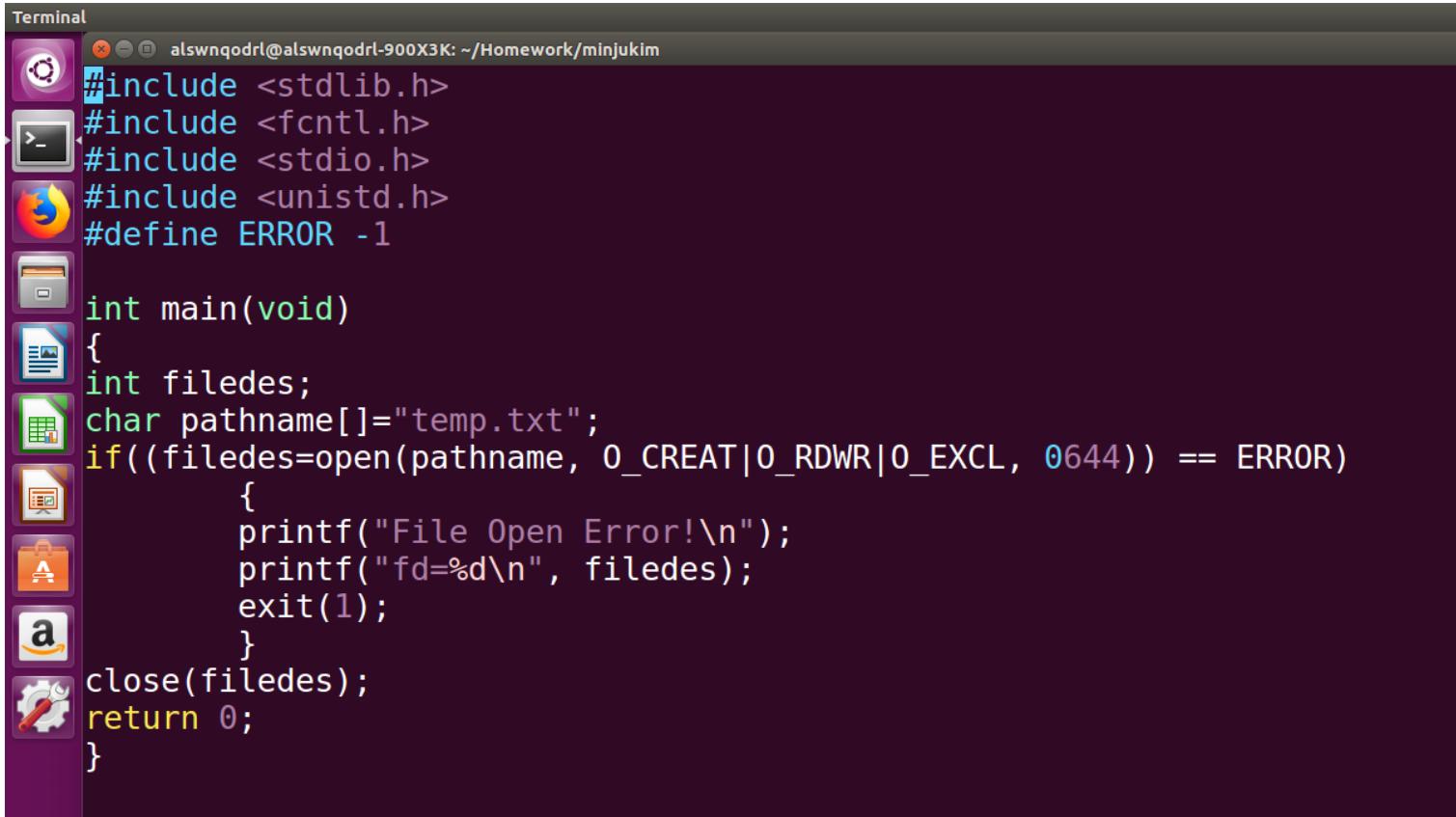
18일차 내용 복습





01

18일차 내용 복습



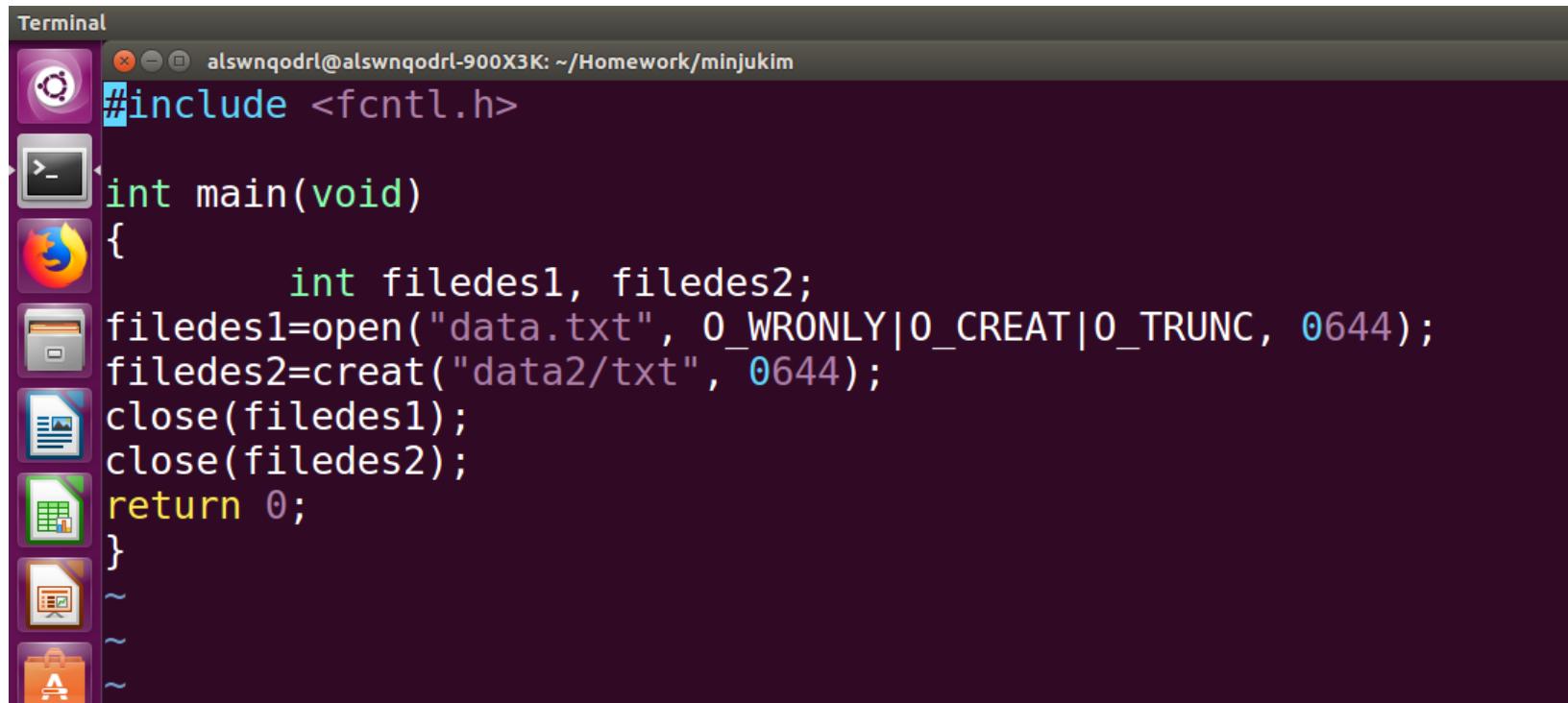
```
#include <stdlib.h>
#include <fcntl.h>
#include <stdio.h>
#include <unistd.h>
#define ERROR -1

int main(void)
{
    int filedes;
    char pathname[]="temp.txt";
    if((filedes=open(pathname, O_CREAT|O_RDWR|O_EXCL, 0644)) == ERROR)
    {
        printf("File Open Error!\n");
        printf("fd=%d\n", filedes);
        exit(1);
    }
    close(filedes);
    return 0;
}
```



01

18일차 내용 복습



The image shows a screenshot of an Ubuntu desktop environment. On the left, there is a vertical dock with icons for the Dash, Home, Applications, and several system monitors. The main window is a terminal window titled "Terminal". The terminal window has a dark background and contains the following C code:

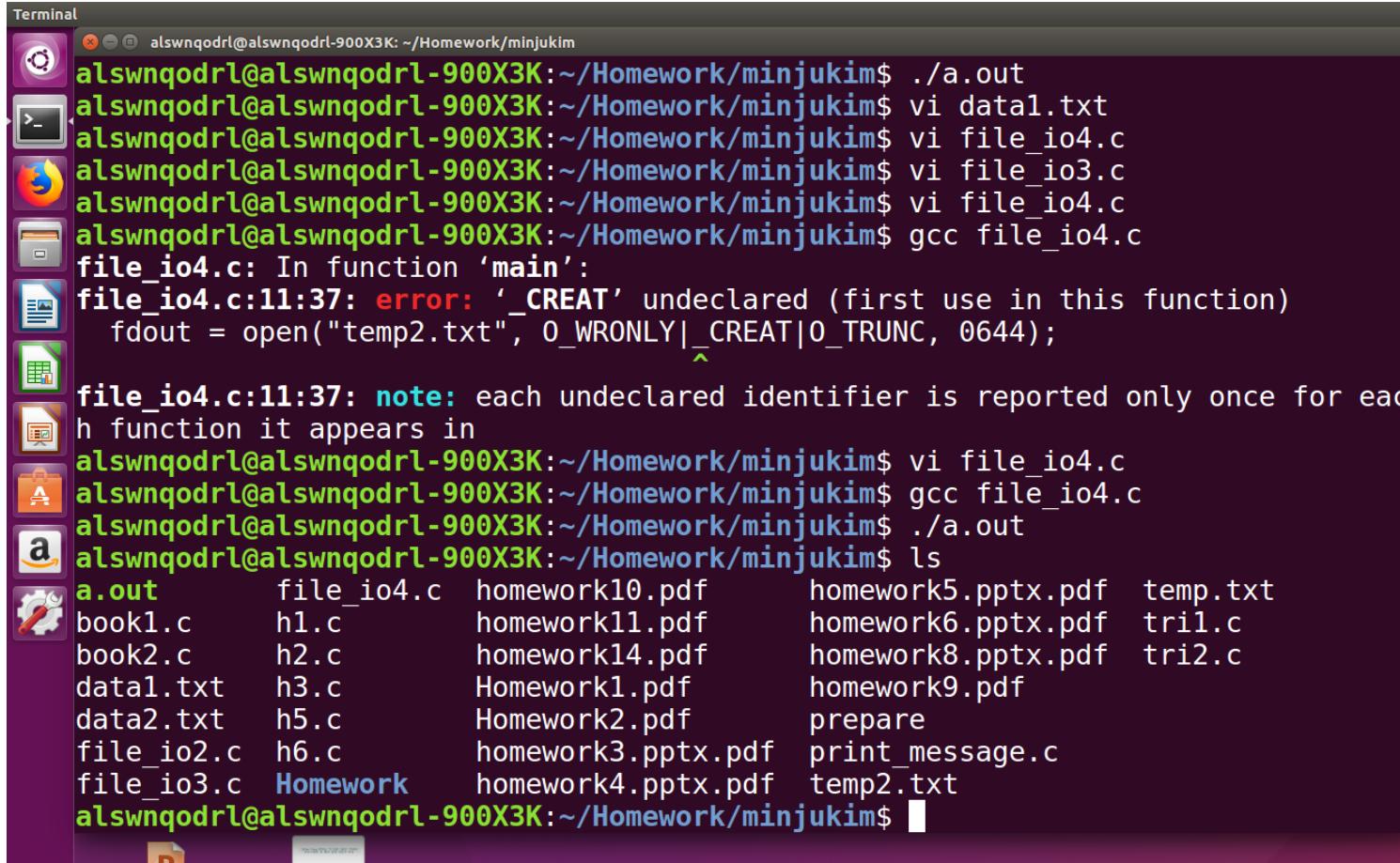
```
#include <fcntl.h>
int main(void)
{
    int filedes1, filedes2;
    filedes1=open("data.txt", O_WRONLY|O_CREAT|O_TRUNC, 0644);
    filedes2=creat("data2.txt", 0644);
    close(filedes1);
    close(filedes2);
    return 0;
}
```

Below the terminal window, there are three tilde symbols (~) indicating the user's home directory.



01

18일차 내용 복습



```
Terminal
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$ vi data1.txt
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$ vi file_io4.c
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$ vi file_io3.c
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$ vi file_io4.c
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$ gcc file_io4.c
file_io4.c: In function 'main':
file_io4.c:11:37: error: '_CREAT' undeclared (first use in this function)
    fdout = open("temp2.txt", O_WRONLY|_CREAT|O_TRUNC, 0644);

file_io4.c:11:37: note: each undeclared identifier is reported only once for each
      function it appears in
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$ vi file_io4.c
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$ gcc file_io4.c
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$ ls
a.out      file_io4.c  homework10.pdf     homework5.pptx.pdf  temp.txt
book1.c    h1.c       homework11.pdf    homework6.pptx.pdf  tril.c
book2.c    h2.c       homework14.pdf   homework8.pptx.pdf  tri2.c
data1.txt  h3.c       Homework1.pdf    homework9.pdf
data2.txt  h5.c       Homework2.pdf    prepare
file_io2.c h6.c       homework3.pptx.pdf print_message.c
file_io3.c Homework   homework4.pptx.pdf temp2.txt
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim$
```



01

18일차 내용 복습

```
Terminal alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim
#include <fcntl.h>
#include <unistd.h>

int main(void)
{
    int fdin, fdout;
    ssize_t nread;
    char buf[1024];

    fdin = open("templ.txt", O_RDONLY);
    fdout = open("temp2.txt", O_WRONLY|O_CREAT|O_TRUNC, 0644);

    while((nread=read(fdin, buf, 1024))>0)
    {
        if(write(fdout, buf, nread)<nread)
        {
            close(fdin);
            close(fdout);
        }
        close(fdin);
        close(fdout);
    }
    return 0;
}
"file_io4.c" 24L, 370C
```



01

18일차 내용 복습

```
Terminal Terminal File Edit View Search Terminal Help
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim
#include <sys/types.h>
#include <fcntl.h>
#include <unistd.h>
#include <stdio.h>

int main(void)
{
    int filedes;
    off_t newpos;

    filedes = open("data1.txt", O_RDONLY);
    newpos = lseek(filedes, (off_t)0, SEEK_END);
    printf("file size: %d\n");
}

~
~
~
```



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18일차 내용 복습

Terminal

```
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi templ.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io4.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ls
a.out      file_io4.c  homework10.pdf      homework5.pptx.pdf  temp2.txt
book1.c    h1.c        homework11.pdf     homework6.pptx.pdf  temp.txt
book2.c    h2.c        homework14.pdf     homework8.pptx.pdf  tri1.c
data1.txt  h3.c        Homework1.pdf     homework9.pdf      tri2.c
data2.txt  h5.c        Homework2.pdf     prepare
file_io2.c h6.c        homework3.pptx.pdf print_message.c
file_io3.c Homework   homework4.pptx.pdf templ.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi temp2.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io4.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io5.c
file_io5.c: In function 'main':
file_io5.c:13:9: warning: format '%d' expects argument of type 'int', but argument 2 has type 'off_t {aka long int}' [-Wformat=]
    printf("file size: %d\n", newpos);
               ^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
file size: 0
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ █
```



01

18일차 내용 복습

```
Terminal
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim
.a.out      file_io4.c  homework10.pdf    homework5.pptx.pdf  temp2.txt
book1.c     h1.c       homework11.pdf   homework6.pptx.pdf  temp.txt
book2.c     h2.c       homework14.pdf   homework8.pptx.pdf  tri1.c
data1.txt   h3.c       Homework1.pdf   homework9.pdf      tri2.c
data2.txt   h5.c       Homework2.pdf   prepare
file_io2.c  h6.c       homework3.pptx.pdf print_message.c
file_io3.c  Homework   homework4.pptx.pdf temp1.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi temp2.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io4.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io5.c
file_io5.c: In function 'main':
file_io5.c:13:9: warning: format '%d' expects argument of type 'int', but argument 2 has type 'off_t {aka long int}' [-Wformat=]
    printf("file size: %d\n", newpos);
                                         ^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
file size: 0
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
file size: 0
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ █
```



01

18일차 내용 복습

```
aiswnqodrl@aiswnqodrl-900XK:~/Homework/minjukim
#include <fcntl.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <errno.h>

int main(int argc, char **argv)
{
    int fd=open(argv[1], O_RDONLY);
    int line=0;
    int word=0;
    int flag=0;
    int cnt=0; //count
    int ch=0;
    if(argc != 2)
    {
        printf("You need 1 more parameter\n");
        printf("Usage: mywc filename\n");
        exit(-1);
    }
    if((fd=open(argv[1], O_RDONLY))<0)
    {
        perror("open()");
        exit(-1);
    }
    while(read(fd, &ch, 1))
    {
        cnt++;
        if(ch == '\n')
            line++;

        if(ch!='\n' && ch!='\t' && ch!=' ')
        {
            if(flag==0)
            {
                word++;
                flag=1;
            }
        }
        else
        {
            flag=0;
        }
    }
    close(fd);
    printf("%d %d %d %s\n", line, word, cnt, argv[1]);
    return 0;
}
```



01

18일차 내용 복습

```
Terminal alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ls
a.out      h3.c          homework14.pdf    homework6.pptx.pdf  tri1.c
book1.c    h5.c          Homework1.pdf   homework8.pptx.pdf  tri2.c
book2.c    h6.c          Homework2.pdf   homework9.pdf
file_io2.c Homework      homework3.pptx.pdf prepare
h1.c       homework10.pdf  homework4.pptx.pdf print_message.c
h2.c       homework11.pdf  homework5.pptx.pdf temp.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
File Open Error!
fd=-1
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ rm - rf temp.txt
rm: cannot remove '-': No such file or directory
rm: cannot remove 'rf': No such file or directory
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ rm -rf temp.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ █
```



01

18일차 내용 복습

```
Terminal alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim
book2.c      h3.c      homework14.pdf      homework6.pptx.pdf  tri1.c
data.txt     h5.c      Homework1.pdf      homework8.pptx.pdf  tri2.c
file_io2.c   h6.c      Homework2.pdf      homework9.pdf
file_io3.c   Homework  homework3.pptx.pdf  prepare
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io3.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ re -rf data.txt
The program 're' is currently not installed. You can install it by typing:
sudo apt install re
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ rm -rf data.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io3.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io3.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ls
a.out        file_io3.c  Homework          homework3.pptx.pdf  prepare
book1.c      h1.c      homework10.pdf    homework4.pptx.pdf  print_message.c
book2.c      h2.c      homework11.pdf    homework5.pptx.pdf  temp.txt
data1.txt    h3.c      homework14.pdf    homework6.pptx.pdf  tri1.c
data2.txt    h5.c      Homework1.pdf    homework8.pptx.pdf  tri2.c
file_io2.c   h6.c      Homework2.pdf    homework9.pdf
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi data1.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io3.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi data1.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ █
```



01

18일차 내용 복습

```
Terminal
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim
close(filedes);
^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ls
a.out      h3.c          homework14.pdf    homework6.pptx.pdf   tri1.c
book1.c    h5.c          Homework1.pdf    homework8.pptx.pdf  tri2.c
book2.c    h6.c          Homework2.pdf    homework9.pdf
file_io2.c Homework      homework3.pptx.pdf  prepare
h1.c       homework10.pdf   homework4.pptx.pdf print_message.c
h2.c       homework11.pdf   homework5.pptx.pdf temp.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
File Open Error!
fd=-1
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ █
```



01

18일차 내용 복습

```
Terminal
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim
file_io5.c:13:9: warning: format '%d' expects argument of type 'int', but argument 2 has type 'off_t {aka long int}' [-Wformat=]
    printf("file size: %d\n", newpos);
                                         ^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
file size: 0
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
file size: 0
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi data1.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
file size: 0
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi data1.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io5.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
file size: 7
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi data1.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
file size: 6
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ █
```



01

18일차 내용 복습

```
aiswnqodri@aiswnqodri-900X3K:~/Homework/minjukim
#include <fcntl.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <errno.h>

int main(int argc, char **argv)
{
    int fd=open(argv[1], O_RDONLY);
    int line=0;
    int word=0;
    int flag=0;
    int cnt=0;
    int ch=0;
    if(argc != 2)
    {
        printf("You need 1 more parameter\n");
        printf("Usage: mywc filename\n");
        exit(-1);
    }
    if(fd=open(argv[1], O_RDONLY)<0)
    {
        perror("open()");
        exit(-1);
    }
    while(read(fd, &ch, 1))
    {
        cnt++;
        if(ch == '\n')
            line++;
        if(ch!='\n' && ch!='\t' && ch!=' ')
        {
            if(flag==0)
            {
                word++;
                flag=1;
            }
        }
        else
        {
            flag=0;
        }
    }
    close(fd);
    printf("%d %d %d %s\n", line, word, cnt, argv[1]);
}
~
```



01

18일차 내용 복습

```
^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi mm.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc mm.c
mm.c: In function 'main':
mm.c:27:8: warning: implicit declaration of function 'read' [-Wimplicit-function-declaration]
    while(read(fd, &ch, 1))
          ^
mm.c:33:34: error: empty character constant
    if(ch!='\n' && ch]!='\t' && ch=='')
          ^
mm.c:46:2: warning: implicit declaration of function 'close' [-Wimplicit-function-declaration]
    close(fd);
          ^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi mm.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc mm.c
mm.c: In function 'main':
mm.c:27:8: warning: implicit declaration of function 'read' [-Wimplicit-function-declaration]
    while(read(fd, &ch, 1))
          ^
mm.c:46:2: warning: implicit declaration of function 'close' [-Wimplicit-function-declaration]
    close(fd);
          ^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
You need 1 more parameter
Usage: mywc filename
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ █
```





01

18일차 내용 복습

```
Terminal alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjuklm
#include <fcntl.h>
#include <unistd.h>
#include <stdio.h>
#include <stdlib.h>

int main(int argc, char **argv)
{
    int i;
    int fdin, fdout, nread;
    char buf[1024]={0};

    if(argc != 3)
    {
        printf("인자 입력 3개 해요 !\n");
        exit(-1);
    }
    for(i=0; i<argc; i++)
    {
        printf("당신이 입력한 인자는 = %s\n", argv[i]);
    }
    fdin = open(argv[1], O_RDONLY);
    fdout = open(argv[2], O_WRONLY|O_CREAT|O_TRUNC);

    while((nread=read(fdin, buf, 1024))>0)
    {
        if(write(fdout, buf, nread)<nread)
        {
            close(fdin);
            close(fdout);
            printf("비정상 종료 \n");
            exit(-1);
        }
    }
    close(fdin);
    close(fdout);
    printf("정상 종료 \n");

    return 0;
}
~
~ "mycp.c" 39L, 653C
1,1
```



01

18일차 내용 복습

The screenshot shows a terminal window with two panes. The left pane displays the compilation of a C program named mycp.c. It shows warnings about missing stdlib.h includes and implicit declarations of exit. The right pane shows the source code of mycp.c, which reads from temp1.txt and writes to temp2.txt, returning 0 if the write operation fails.

```
Terminal
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim
it'
mycp.c:14:3: note: include '<stdlib.h>' or provide a declaration of 'exit'
mycp.c:30:3: warning: incompatible implicit declaration of built-in function 'exit'
it'
    exit(-1);
^
mycp.c:30:3: note: include '<stdlib.h>' or provide a declaration of 'exit'
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi mycp.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi mycp.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc mycp.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
인자 입력 3개 해요!
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ mycp test.txt a.txt
No command 'mycp' found, did you mean:
Command 'mocp' from package 'moc' (universe)
Command 'mkcp' from package 'nilfs-tools' (universe)
Command 'mcp' from package 'mmv' (universe)
Command 'mpcp' from package 'mpdtoys' (universe)
mycp: command not found
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out test.txt a.txt
당신이 입력한 인자는 = ./a.out
당신이 입력한 인자는 = test.txt
당신이 입력한 인자는 = a.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$
```

```
#include <unistd.h>
int main(void)
{
    int fdin, fdout;
    ssize_t nread;
    char buf[1024];
    fdin = open("temp1.txt", O_RDONLY);
    fdout = open("temp2.txt", O_WRONLY|O_CREAT|O_TRUNC, 0644);
    while((nread=read(fdin, buf, 1024))>0)
    {
        if(write(fdout, buf, nread)<nread)
        {
            close(fdin);
            close(fdout);
        }
    }
    close(fdin);
    close(fdout);
    return 0;
}
```

24,1



01

18일차 내용 복습

```
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_teacher2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc cat_teacher2.c
/tmp/ccPwlBg2.o: In function `main':
cat_teacher2.c:(.text+0x41): undefined reference to `my_scanf'
collect2: error: ld returned 1 exit status
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_teacher.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi my_scanf.h
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_teacher.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_teacher2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc cat_teacher.c
/usr/lib/gcc/x86_64-linux-gnu/5/../../../../x86_64-linux-gnu/crt1.o: In function `__start':
(.text+0x20): undefined reference to `main'
collect2: error: ld returned 1 exit status
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc cat_teacher2.c
/tmp/ccxm0lmE.o: In function `main':
cat_teacher2.c:(.text+0x41): undefined reference to `my_scanf'
collect2: error: ld returned 1 exit status
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_teacher.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc my_scanf.h
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc my_scanf.h cat_teacher.c cat_teacher2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc my_scanf.h
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc my_scanf.h
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc my_scanf.h
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc my_scanf.h
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out

nr=0
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc cat_teacher.c cat_teacher2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out

nr=0
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi cat_teacher.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc my_scanf.h cat_teacher.c cat_teacher2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out

nr=1
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
dd
nr=3
dd
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ █
```



01

18일차 내용 복습

```
Terminal Terminal File Edit View Search Terminal Help
alswnqodrl@alswnqodrl-900X3K: ~/Homework/minjukim
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ cd minjukim
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io2.c
file_io2.c: In function 'main':
file_io2.c:16:1: warning: implicit declaration of function 'close' [-Wimplicit-function-declaration]
    close(filedes);
^
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ gcc file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ./a.out
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ vi file_io2.c
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$ ls
a.out      h3.c          homework14.pdf   homework6.pptx.pdf  tri1.c
book1.c    h5.c          Homework1.pdf    homework8.pptx.pdf  tri2.c
book2.c    h6.c          Homework2.pdf    homework9.pdf
file_io2.c Homework      homework3.pptx.pdf prepare
h1.c       homework10.pdf  homework4.pptx.pdf print_message.c
h2.c       homework11.pdf  homework5.pptx.pdf temp.txt
alswnqodrl@alswnqodrl-900X3K:~/Homework/minjukim$
```