第 6 回 プログラミング応用レポート

15302114 番　山下尚人

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1

- ソースコード

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main(void){
5    int val;
6    int sum = 0;
7    int cnt = 0;
8    FILE *fpin, *fpout;
9
10   if ( (fpin=fopen("exdata1.dat","r")) == NULL){
11     printf("File␣not␣found.␣---␣exdata1.dat\n");
12     exit(EXIT_FAILURE);
13   }
14
15   if ( (fpout=fopen("out.dat","w")) == NULL ){
16     fclose(fpin);
17     printf("File␣not␣made.␣---␣out.dat\n");
18     exit(EXIT_FAILURE);
19   }
20
21   while( fscanf(fpin,"%d",&val) != EOF){
22     fprintf(fpout,"Input␣data␣>>>␣%d\n", val);
23     sum += val;
24     ++cnt;
25   }
26
27   if(cnt>0){
28     printf("SUM=%d,␣AVE=%g\n", sum, (double)sum/cnt);
29   }
30
31   fclose(fpin);
32   fclose(fpout);
33
34   return EXIT_SUCCESS;
35 }
```

- 入力データファイル (exdata1.dat)

```
150
164
153
174
189
185
168
156
152
174
173
169
```

- 出力データファイル (out.dat)

```
Input data >>> 150
Input data >>> 164
Input data >>> 153
Input data >>> 174
Input data >>> 189
Input data >>> 185
Input data >>> 168
Input data >>> 156
Input data >>> 152
Input data >>> 174
Input data >>> 173
Input data >>> 169
```

- 実行結果

```

[myuser@linux01 8th_lecture]$ ls
a.out  ex103.c  exdata1.dat
[myuser@linux01 8th_lecture]$ ./a.out
SUM=2007, AVE=167.25
```

- 考察

2

- ソースコード

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main (void){
5    FILE *fp;
6
7    if ( (fp=fopen("sample.dat","a")) == NULL){
8      printf("File␣not␣found.␣---␣sample.dat\n");
9      exit(EXIT_FAILURE);
10   }
11
12   printf("debug\n");
13
14   fprintf(fp,"But,␣if␣you␣do␣your␣best,\n");
15   fprintf(fp,"you␣will␣manage.\n");
16
17   fclose(fp);
18
19   return EXIT_SUCCESS;
20 }
```

- 実行結果

```
1  [myuser@linux01 8th_lecture]$ ls
2  a.out  ex103.c  ex104.c  exdata1.dat  logdata1.txt  logdata2
       .txt  out.dat
3  [myuser@linux01 8th_lecture]$ ./a.out
4  debug
5  [myuser@linux01 8th_lecture]$ ls
6  a.out    ex104.c      logdata1.txt  out.dat
7  ex103.c  exdata1.dat  logdata2.txt  sample.dat
8  [myuser@linux01 8th_lecture]$ cat sample.dat
9  But, if you do your best,
10 you will manage.
11 [myuser@linux01 8th_lecture]$ ./a.out
12 debug
13 [myuser@linux01 8th_lecture]$ ls
14 a.out    ex104.c      logdata1.txt  out.dat
15 ex103.c  exdata1.dat  logdata2.txt  sample.dat
16 [myuser@linux01 8th_lecture]$ cat sample.dat
17 But, if you do your best,
18 you will manage.
19 But, if you do your best,
20 you will manage.
```

- 考察