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CPSC 2311 005

Lab 4 GDB screenshots.

Running the program through gdb

```
(gdb) run input.txt output.txt
Starting program: /home/spfarre/cpsc2310/lab 4 finished/lab 4/lab 4 segfault sceenshots/te
ut input.txt output.txt
[Thread debugging using libthread_db enabled]
Using host libthread_db library "/lib/x86_64-linux-gnu/libthread_db.so.1".
cheking command line arguments
01      01      01      01      01
00      00      00      00      00
00      00      00      00      00
00      00      00      00      00

Program received signal SIGSEGV, Segmentation fault.
0x0000555555555453 in ?? ()
(gdb)
```

```
(gdb) list main
1       #include "functions.h"
2
3       int main(int argc, char** argv)
4       {
5           printf("cheking command line arguments\n");
6
7           if (argc < 3)
8           {
9               printf("not enought argument: ./exe filename\n");
10              exit(-1);
(gdb) list functions
Function "functions" not defined.
(gdb) list print matrix
Function "print matrix" not defined.
(gdb) list printMatrix
21          return mat;
22      }
23
24
25      void printMatrix (int** mat, int num)
26      {
27          int row = 0;
28          int col = 0;
29          for(row = 0; row < num; row++)
30          {
(gdb) list readFile
1       #include "functions.h"
2       int** readFile(FILE* fp, int *size)
3       {
4           fscanf(fp, "%d", size);
5           int num = *size;
6           int index = 0;
7
8           int** mat = (int**)malloc(num * sizeof(int));
9           for(index = 0; index < num; index++)
10              mat[index] = (int*)malloc(num * sizeof(int));
(gdb)
```

Looping through the for loop of the print matrix. To find the error.

```
(gdb) next
00      00      00      00      00
29          for(row = 0; row < num; row++)
(gdb) next
31              for(col = 0; col < num; col++)
(gdb) next
33                  printf("%.2d\t", mat[row][col]);
(gdb) next

Program received signal SIGSEGV, Segmentation fault.
0x0000555555555453 in printMatrix (mat=0x55555555c340, num=5) at functions.c:33
33                  printf("%.2d\t", mat[row][col]);
(gdb)
```

Found the location of the error

```
[Inferior 1 (process 1521531) exited with code 0377]
(gdb) run input.txt output.txt
Starting program: /home/spfarre/cpsc2310/lab 4 finished/lab 4/lab 4 segfault sceenshots/test.out input.txt output.txt
[Thread debugging using libthread_db enabled]
Using host libthread_db library "/lib/x86_64-linux-gnu/libthread_db.so.1".
cheking command line arguments
01      01      01      01      01
00      00      00      00      00
00      00      00      00      00
00      00      00      00      00

Program received signal SIGSEGV, Segmentation fault.
0x0000555555555453 in printMatrix (mat=0x55555555c340, num=5) at functions.c:33
33                  printf("%.2d\t", mat[row][col]);
(gdb)
```