Valgrind Assignment

1. Login into the Linux server with your login Ids

2. Create a new directory called mem\_errors in your home directory <home>

mkdir mem\_errors : make the directory by mkdir mem\_errors

3. Go inside the directory you have created in (2) /<home>/mem\_errors

cd mem\_errors : change to directory

4. Copy the following files from the path as mentioned by the trainer:

a. sample1.c

b. sample2.c

c. sample3.c

d. sample4.c

e. sample5.c

5. Take a look at the example programs and observe if you can find any errors.

6. Compile the files

gcc –o sample1 –g sample1.c

gcc –o sample2 –g sample2.c

gcc –o sample3 –g sample3.c

gcc –o sample4 –g sample4.c

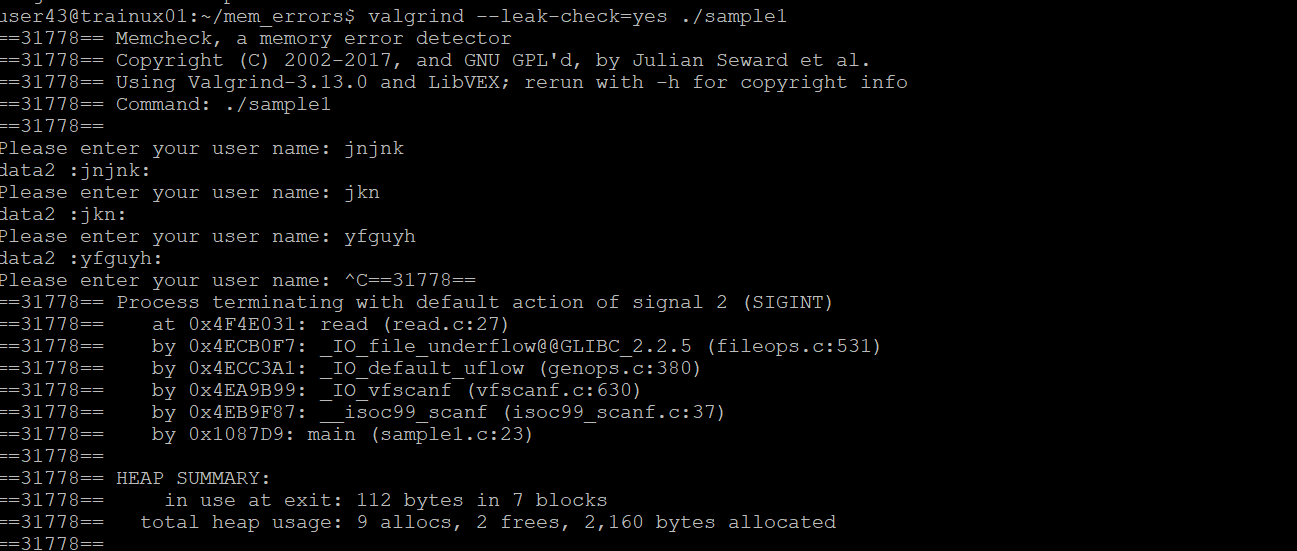
gcc –o sample5 –g sample5.c

A screen shot of a computer

Description automatically generated

7. Execute the file sample1

valgrind –-leak-check=yes sample1



8. Execute the file sample2

valgrind –-leak-check=yes ./sample2



9. Execute the file sample3

Valgrind –-leak-check=yes ./sample3

After quitting the program Valgrind displays a list of memory errors in the program. Analyze these errors.

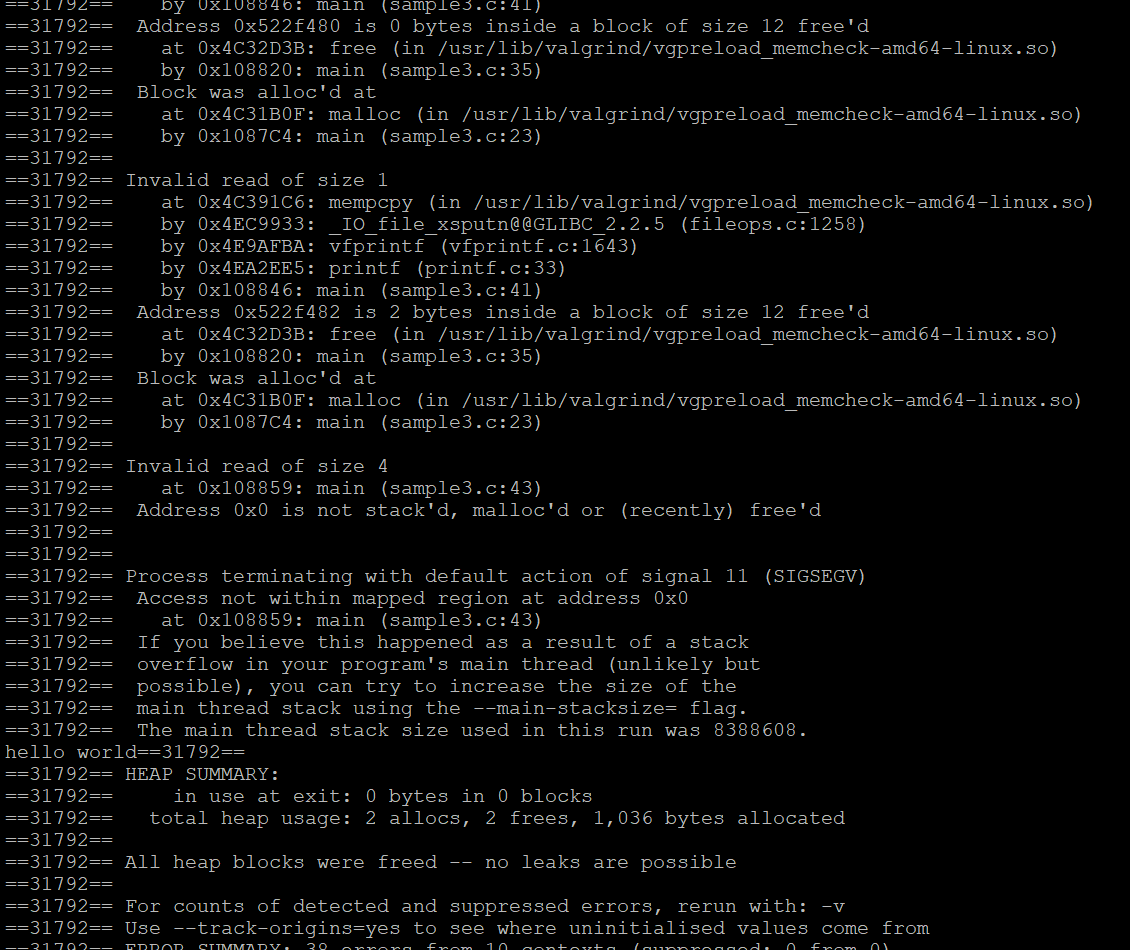
A screenshot of a computer program

Description automatically generated

10. Execute the file sample4

Valgrind –-leak-check=yes ./sample4

After quitting the program Valgrind displays a list of memory errors in the program. Analyze these errors.



11. Execute the file sample4

Valgrind –-leak-check=yes ./sample5

After quitting the program Valgrind displays a list of memory errors in the program. Analyze these errors.

A screenshot of a computer program

Description automatically generated

12. Compile and execute the program in queue\_linked\_list\_memory\_leak

valgrind –leak-check=yes ./queue\_llist

After quitting the program Valgrind displays a list of memory errors in the program. Analyze these errors.