# COMP2710: gdb Demonstration Instructions (to be updated)

10 Minute spent on Advice (see Lec15c-Office Hours and Part-time Jobs-Advice.pptx)

40 minutes spent on gdb. Only finish demo 1-4.

**Demo 1.**  /comp2710/samples/gdb\_segfault.cpp

Step 1: show source code.

$vi gdb\_segfault.cpp

Step 2: compile

%g++ -g gdb\_segfault.cpp –o gdb\_segfault

%./gdb\_segfault

$core dump

Step 3: debug using bt

$ gdb gdb\_segfaulgt

(gdb) run

(gdb) bt

(gdb) quite

quite or q

**Demo 2.** samples/gdb\_sample.cpp

* What will happen if we forget to compile the source code?

Step 1: Question 1

$rm gdb\_sample

$gdb gdb\_sample

$No file

$(gdb)q

* What will happen if we forget to use the “-g” flag?s1 is an object of class Survey

%g++ gdb\_sample.cpp –o gdb\_sample

$gdb gdb\_sample

quite or q

**Demo 3. Setup breakpoint /comp2710/samples/gdb\_sample.cpp**

What will happen if we set a breakpoint at a line without any code?

$ gdb gdb\_sample

(gdb) break 8

What will happen if we are at line 9, and set up a breakpoint at line 6?

$ gdb gdb\_sample

(gdb) break 9

(gdb) break 6

(gdb) run

**Demo 4. set up a watchpoint /comp2710/samples/gdb\_factorial.cpp**

$gdb gdb\_factorial

b 12

r

s

//Step into factorial()

watch i < n

continue

print i

print n

See /comp2710/samples/gdb\_factorial.cpp

Error: init j = 1; i<“=“num

Enter the number: 5

The factorial of 5 = 120