

## Discussion 3: gdb – GNU debugger

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### 1. Compilation for gdb

% gcc -g -o temp temp.c

### 2. Starting gdb

% gdb program [ core-dump ]

### 3. Listing a file

(gdb) list

(gdb) list *line1,line2*

(gdb) list *routine-name*

### 4. Executing a Program

(gdb) run

(gdb) backtrace

### 5. Printing Data

(gdb) whatis *variable*

(gdb) print *variable*

(gdb) print *base@length*

### 6. Break points

- set break points

(gdb) break *line-number*    **or**    break *filename:line-number*

(gdb) break *function-name*    **or**    break *filename:function-name*

- continuing execution from a breakpoint

(gdb) continue

- managing breakpoints

(gdb) info breakpoints

(gdb) disable number

(gdb) enable number

(gdb) delete number

### 7. Single-Step Execution

(gdb) step ; (gdb) next

### 8. Moving up and Down the Call Stack

(gdb) where ; (gdb) up ; (gdb) down ; (gdb) frame