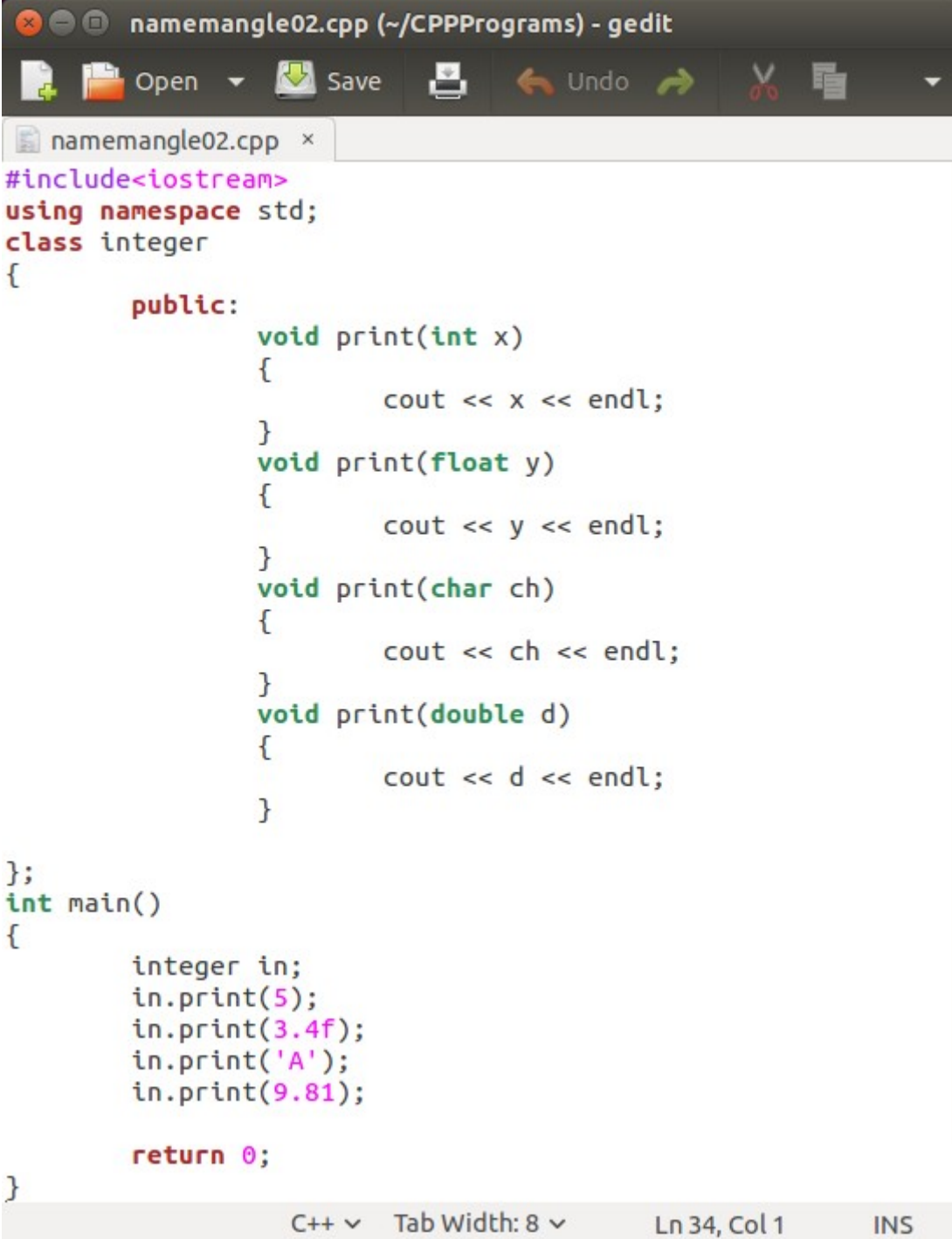


Here is sequence of steps to see the name mangling techniques of C++ compiler if you are interested in exploring on your own machine. I am using gcc compiler on Ubuntu environment version 15.04

Type the code

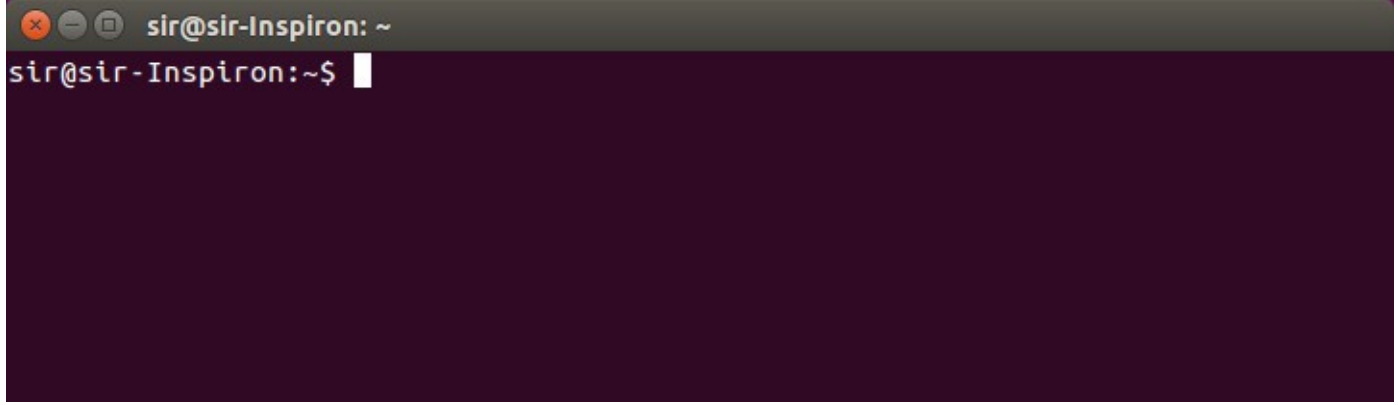
A screenshot of a gedit text editor window. The title bar reads "namemangle02.cpp (~/.CPPPrograms) - gedit". The menu bar includes "Open", "Save", "Undo", and "Cut". The code is written in C++ and uses syntax highlighting. It defines a class named 'integer' with four public member functions: 'print(int x)', 'print(float y)', 'print(char ch)', and 'print(double d)'. Each function prints its argument followed by a newline. The 'main' function creates an object 'in' of type 'integer' and calls these four functions with arguments 5, 3.4f, 'A', and 9.81. The status bar at the bottom shows "C++", "Tab Width: 8", "Ln 34, Col 1", and "INS".

```
#include<iostream>
using namespace std;
class integer
{
    public:
        void print(int x)
        {
            cout << x << endl;
        }
        void print(float y)
        {
            cout << y << endl;
        }
        void print(char ch)
        {
            cout << ch << endl;
        }
        void print(double d)
        {
            cout << d << endl;
        }
};
int main()
{
    integer in;
    in.print(5);
    in.print(3.4f);
    in.print('A');
    in.print(9.81);

    return 0;
}
```

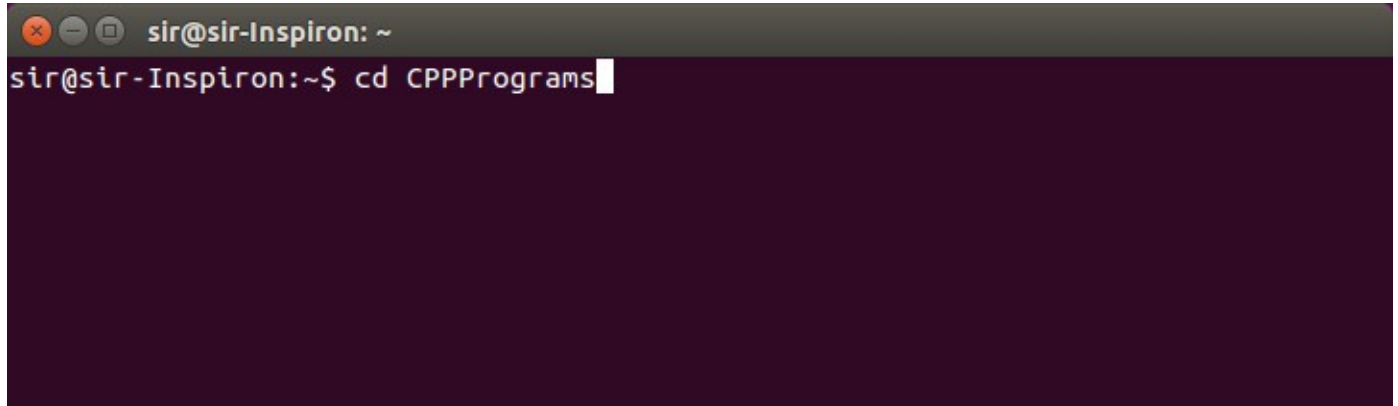
Save the file in a proper folder created by you. I have saved file with name “**namemangle02.c**” in a on drive C in a folder “**CPPPrograms**”

Open the terminal (Ctrl+Alt+T)

A terminal window with a dark purple background. The title bar shows 'sir@sir-Inspiron: ~'. The prompt is 'sir@sir-Inspiron:~\$' followed by a white cursor.

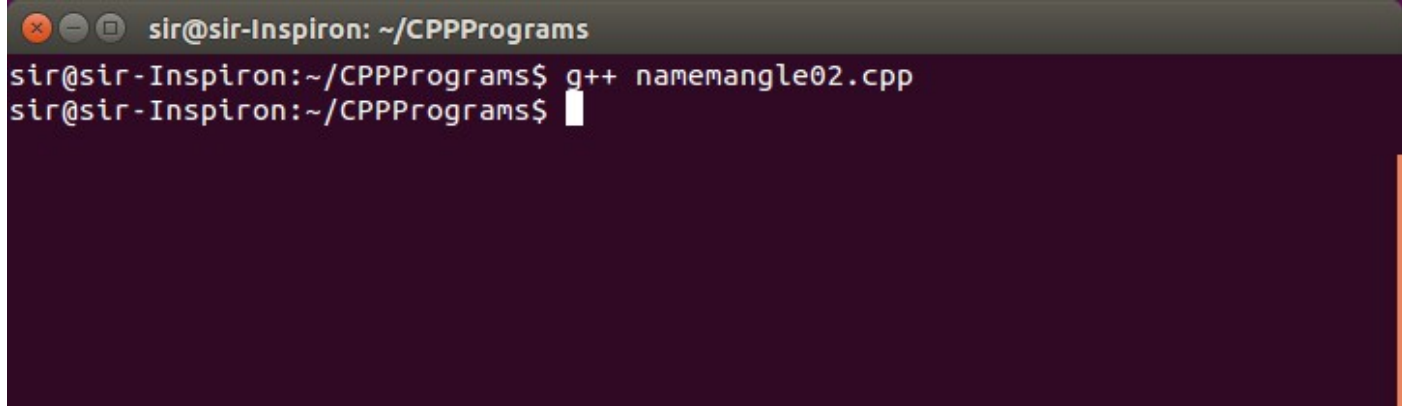
```
sir@sir-Inspiron:~$
```

Change directory using CD command

A terminal window with a dark purple background. The title bar shows 'sir@sir-Inspiron: ~'. The prompt is 'sir@sir-Inspiron:~\$' followed by the command 'cd CPPPrograms' and a white cursor.

```
sir@sir-Inspiron:~$ cd CPPPrograms
```

Compile the file using the command **gcc <name of the source code file>**

A terminal window with a dark purple background. The title bar shows 'sir@sir-Inspiron: ~/CPPPrograms'. The prompt is 'sir@sir-Inspiron:~/CPPPrograms\$' followed by the command 'g++ namemangle02.cpp' and a white cursor.

```
sir@sir-Inspiron:~/CPPPrograms$ g++ namemangle02.cpp
sir@sir-Inspiron:~/CPPPrograms$
```

The object file **a.out** would be created.

Type the command **nm a.out** to get the object file

```
sir@sir-Inspiron: ~/CPPPrograms
08049f08 d __JCR_LIST__
          w _Jv_RegisterClasses
080489b0 T __libc_csu_fini
08048950 T __libc_csu_init
          U __libc_start_main@@GLIBC_2.0
0804879b T main
08048710 t register_tm_clones
          U __stack_chk_fail@@GLIBC_2.4
080486a0 T _start
0804a044 D __TMC_END__
080486d0 T __x86.get_pc_thunk.bx
08048828 t _Z41__static_initialization_and_destruction_0ii
080488dc W _ZN7integer5printEc
08048910 W _ZN7integer5printEd
080488b0 W _ZN7integer5printEf
08048884 W _ZN7integer5printEi
          U _ZNSolsEd@@GLIBCXX_3.4
          U _ZNSolsEf@@GLIBCXX_3.4
          U _ZNSolsEi@@GLIBCXX_3.4
          U _ZNSolsEPFRSoS_E@@GLIBCXX_3.4
          U _ZNSt8ios_base4InitC1Ev@@GLIBCXX_3.4
          U _ZNSt8ios_base4InitD1Ev@@GLIBCXX_3.4
0804a080 B _ZSt4cout@@GLIBCXX_3.4
          U _ZSt4endlIcSt11char_traitsIcEERSt13basic_ostreamIT_T0_ES6_@@GLIBCXX_3.4
0804a10d b _ZStL8__ioinit
          U _ZStlsISt11char_traitsIcEERSt13basic_ostreamIcT_ES5_c@@GLIBCXX_3.4
sir@sir-Inspiron:~/CPPPrograms$
```

Mangled Names by the compiler