

Source File: ~/1337/14/lab14. (C|CPP|cpp|c++|cc|cxx|cp)
Input: Standard Input
Output: Standard Output
Value: 1

In the United States, a Social Security number (SSN) is a nine-digit number issued to U.S. citizens, permanent residents, and temporary (working) residents under section 205(c)(2) of the Social Security Act. The number is issued to an individual by the Social Security Administration, an independent agency of the United States government.

The Social Security number is a nine-digit number in the format “AAA-GG-SSSS”. The number is divided into three parts:

- The **area number**, the first three digits, is assigned by the geographical region.
- The middle two digits are the **group number**. They have no special geographic or data significance but merely serve to break the number into conveniently sized blocks for orderly issuance.
- The last four digits are **serial numbers**. They represent a straight numerical sequence of digits from 0001–9999 within the group.

Write a complete program that will read an unknown number of nine-digit numbers from the standard input. Let each of the input numbers represent a Social Security number. Input can terminate when the end-of-data marker is encountered. For each nine-digit number, print it and its formatted form as shown below. The output should be directed to the standard output.

Commands to compile, link, and run this assignment are shown in Figure 1.

```

1 newuser@csunix ~> cd 1337
2 newuser@csunix ~/1337> mkdir 14
3 newuser@csunix ~/1337> cd 14
4 newuser@csunix ~/1337/14> cp /usr/local/1337/data/14/* .
5 newuser@csunix ~/1337/14> touch lab14.cpp
6 newuser@csunix ~/1337/14> # Edit lab14.cpp
7 newuser@csunix ~/1337/14> g++ -g -Wall -std=c++11 -c lab14.cpp
8 newuser@csunix ~/1337/14> g++ -o lab14 lab14.o
9 newuser@csunix ~/1337/14> cat 01.dat
10 123456789
11 001010001
12 999999999
13 475508642
14 newuser@csunix ~/1337/14> ./lab14 < 01.dat
15 Your Name - CS 1337 - Lab 14
16
17 -----
18      Input      Formatted
19 -----
20 123456789      123-45-6789
21 001010001      001-01-0001
22 999999999      999-99-9999
23 475508642      475-50-8642
24 -----

```

Figure 1. Commands to Compile, Link, & Run Lab 14 (Part 1 of 2)

```
25 newuser@csunix ~/1337/14> cat 01.dat | ./lab14
26 Your Name - CS 1337 - Lab 14
27
28 -----
29      Input      Formatted
30 -----
31 123456789    123-45-6789
32 001010001    001-01-0001
33 999999999    999-99-9999
34 475508642    475-50-8642
35 -----
36 newuser@csunix ~/1337/14> ./lab14 < 01.dat > my.out
37 newuser@csunix ~/1337/14> diff 01.out my.out
38 newuser@csunix ~/1337/14> cat 02.dat
39 000000001
40 000000012
41 000000123
42 000001234
43 000012345
44 000123456
45 001234567
46 012345678
47 123456789
48 newuser@csunix ~/1337/14> cat 02.dat | ./lab14 > my.out
49 newuser@csunix ~/1337/14> diff 02.out my.out
50 newuser@csunix ~/1337/14>
```

Figure 1. Commands to Compile, Link, & Run Lab 14 (Part 2 of 2)