EE231002 Introduction to Programming

Lab02. Grouping Digits

Due: Oct. 8, 2020

A large number with many digits can be difficult to read. Thus, it is customary to separate the digits into group of 3 and insert a separator between groups when print it out. For example:

<p align="center">1234567890</p>

is difficult to read, while

<p align="center">1,234,567,890</p>

is easy to read. The character ',' serves as a separator. With it inserted, the number is much easier to read. Your assignment is write a `C` program that reads in a positive integer N, N < 2,000,000,000, and prints it out with ',' inserted into digits of 3. Example of program execution is as follows:

```
$ ./a.out
Input a positive integer N (N < 2000000000): 1234567890
N: 1,234,567,890
$ ./a.out
Input a positive integer N (N < 2000000000): 123456
N: 123,456
```

Notes.

1. Create a directory **lab02** and use it as the working directory.

2. Name your program source file as **lab02.c**.

3. The first few lines of your program should be comments as the following.

   ```
   // EE231002 Lab02 Grouping Digits
   // ID, Name
   // Date:
   ```

4. After finishing editing your source file, you can execute the following command to compile the program,

   ```
   $ gcc lab02.c
   ```

If no compilation errors, the executable file, `a.out`, should be generated, and you can execute it by typing

```
$ ./a.out
```

5. Typical inputs and outputs of the program execution have been shown above. But you should try a few more test cases to make sure your program function correctly.

6. After you finish verifying your program, you can submit your source code by

```
$ ~ee2310/bin/submit lab02 lab02.c
```

If you see a "submitted successfully" message, then you are done. In case you want to check which file and at what time you submitted your labs, you can type in the following command:

```
$ ~ee2310/bin/subrec lab02
```

It will show the last few submission records.