

CSIC 450: Data Communication and Network Programming

Practice Project

In this project, you will read from a file, print its content on the screen, and translate the content and store it into a new file.

Your program should be invoked using the following command:

```
<Your program> <input file> <output file>
```

Where <input file> is the name of the file to read from, <output file> is the name of the file to store the translated content.

The content of the input file is a sequence of units. Each unit has one of the following two formats.

```
Type Amount Number1 Number2 ... NumberN
```

```
Type Amount Number1, Number2, ... , NumberN
```

Type is one byte with the binary value 0 or 1. The first format always has Type as 0, and the second always has Type as 1.

If Type is 0, the amount is one byte. The binary value is the amount of numbers in the unit. Number1 through NumberN are the binary numbers, each taking 2 bytes.

If Type is 1, the amount is 3 bytes. The three ASCII characters shows is the amount of numbers in the unit. Number1 through NumberN are unsigned integers no more than 65535 represented in ASCII, separated by comma. There is no comma after the last number.

Your program will read the input file, show all the units on the screen in the second format with each unit in a separate line, and change the format of all the units then store them in the output file. When displaying the units on the screen, the leading 'type' byte do not need to be shown.