Lab 4.9.7.1 Strings

Objectives

Familiarize the student with:

- Strings
- Searching characters in strings
- Validating input
- Advanced loop control
- Printing on screen

Scenario

Write a program that asks for the IP address in a human readable form, creates three substrings, and prints them. These substrings are created from parts 3, 2 and 1 of the last part of the IP address. These substrings should be created with the use of pointers or array indexing (whichever you prefer). If a given string doesn't have 3 dots, then the program should print the message: "Error: not a valid address.". Your program should also check if a given string consists only of digits and dots and that there are no more than 3 digits in each block. You don't have to check if the numbers are smaller than 256. Note: You can use the *isdigit* function, but you can also write your own code to check whether or not a character is a digit. Your version of the program must print the same result as the expected output.

```c
#include <stdio.h>

int main()
{
 /* your code */
 return 0;
}
```

Example input

```
255.255.255.255
```

Example output

```
Last 3 parts: 255.255.255
Last 2 parts: 255.255
Last 1 part: 255
```

Example input

```
127.0.0.1
```

Example output

```
Last 3 parts: 0.0.1
Last 2 parts: 0.1
Last 1 part: 1
```

Example input

```
255.2555.255.255
```

Example output

```
Error: not a valid address.
```