**PRACTICAL LAB 02 – IT4062E**

Submitting requirements:

* Use Makefile to compile
* Encapsulate all source code and makefile to a compress file naming with the following format Name\_StudentID\_HW2.zip. Example: TranNguyenNgoc\_20161234\_HW2.zip

Submit your file to the equivalent assignment on Team

**Exercise 1.** Write an application providing a functimaon to find domain/IP information for users. Domain name or IP Address could be transferred as command line parameters

./resolver parameter

* If the “parameter” is a valid IP address, the program will show the official domain name and list of aliases (if any exists)
* Otherwise, if parameter is considered as domain name, the program will show the official IP address and alias IP addresses as well
* In case of failing to find respective information, the program will show the notification.
* The program will show “invalid address” if the IP address form is invalid

**Note**: Use Makefile to create the binary file with the name of resolver

|  |  |
| --- | --- |
| INPUT | OUTPUT |
| ./resolver google.com | Official IP: 216.58.197.110  Alias IP:  216.58.197.123  126.58.99.199 |
| ./resolver 126.58.99.199 | Official name: hkg07s22-in-f3.1e100.net  Alias name:  hkg07s22-in-f99.1e100.net |
| ./resolver aznsc.test.com | Not found information |
| ./resolver 255.12.34.12 | Not found information |
| ./resolver 1.2.3 | Invalid address |

**Exercise 2.** Modify the exercise 1 program so that:

* The program can run without command line parameters.
* The user will input the IP address or domain name.
* If the input string is a valid IP address, the program will show the official domain name and list of aliases (if any exists).
* Otherwise, if input string is considered as domain name, the program will show the official IP address and alias IP addresses as well.
* In case of failing to find respective information, the program will show the notification as mentioned in exercise 1.
* The user should be able to input multiple strings until the input is a blank string and the program stops.