CSE 3300 – Computer Networks and Data Communication

Professor Bing Wang

Assignment 2 – ICMP Ping Client

Nicholas Lambourne

ndl17004 – 2749404

# Description

### Program Design

The program is provided as a self-contained python script. Given the basic nature of the program (and the limitations imposed by the

### How it works

# Trade-offs

A number of trade-offs were made in the production of the code

## Potential Extensions

The ICMP Ping Client as provided is incredibly basic

* Interactive Client: The

## Test Cases

Overall Design:

The test cases were designed to test common usage situations, including likely misuse.

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| --- | --- |
| **Test Case 1** | |
| Description: | No Input (No Host Provided). |
| Rationale: | Likely to be many users first attempt at using the program. |
| Input: | sudo python3 ping.py |
| Output: |  |
| **Test Case 2** | |
| Description: | Localhost (127.0.0.1) |
| Rationale: | Test case requested by assignment specification. |
| Input: | sudo python3 ping.py 127.0.0.1 |
| Output: |  |
| **Test Case 3** | |
| Description: | Common website (google.com) |
| Rationale: | Ping should work for any website/IP, especially common ones. |
| Input: | sudo python3 ping.py google.com |
| Output: |  |
| **Test Case 4** | |
| Description: | Raw IPV4 (no DNS required - 192.241.155.246 – my Jenkins build server). |
| Rationale: | The ping program should work for raw IPV4 addresses as well. |
| Input: | sudo python3 ping.py 192.241.155.246 |
| Output: |  |
| Test Case 5 | |
| Description: | Invalid IP (255.255.255.111) |
| Rationale: | The ping program should timeout (and continue checking) an invalid IP until interrupted. |
| Input: | sudo python3 |
| Output: |  |