CA169 Assignment 1 Lab Report

Submit these pages onwards.

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PROJECT NUMBER:	1
MODULE CODE:	CA169
DEGREE: [CA EC ECSA PSSD]	CA
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Declaration

In submitting this project, I declare that the project material, which I now submit, is my own work. Any assistance received by way of borrowing from the work of others has been cited and acknowledged within the work. I make this declaration in the knowledge that a breach of the rules pertaining to project submission may carry serious consequences.

Answer Sheets

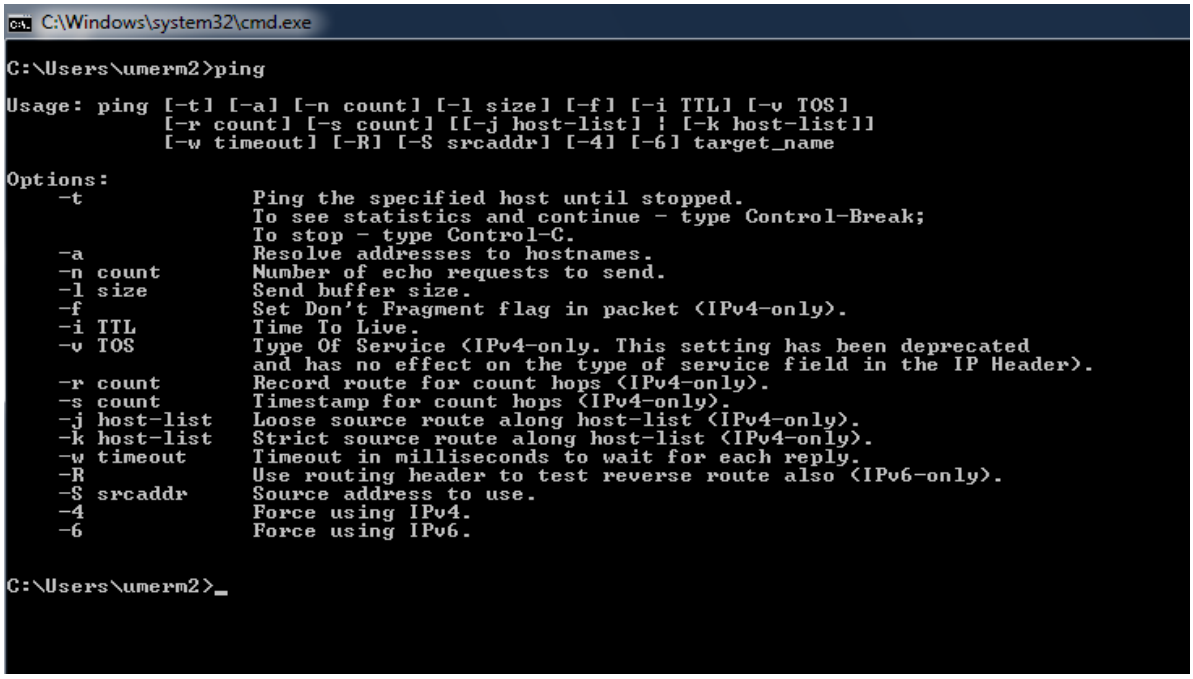
Ipconfig exercise

IP address of the machine	136.206.17.155
MAC address	50-9A-4C-3D-8C-52

Ping exercise 1

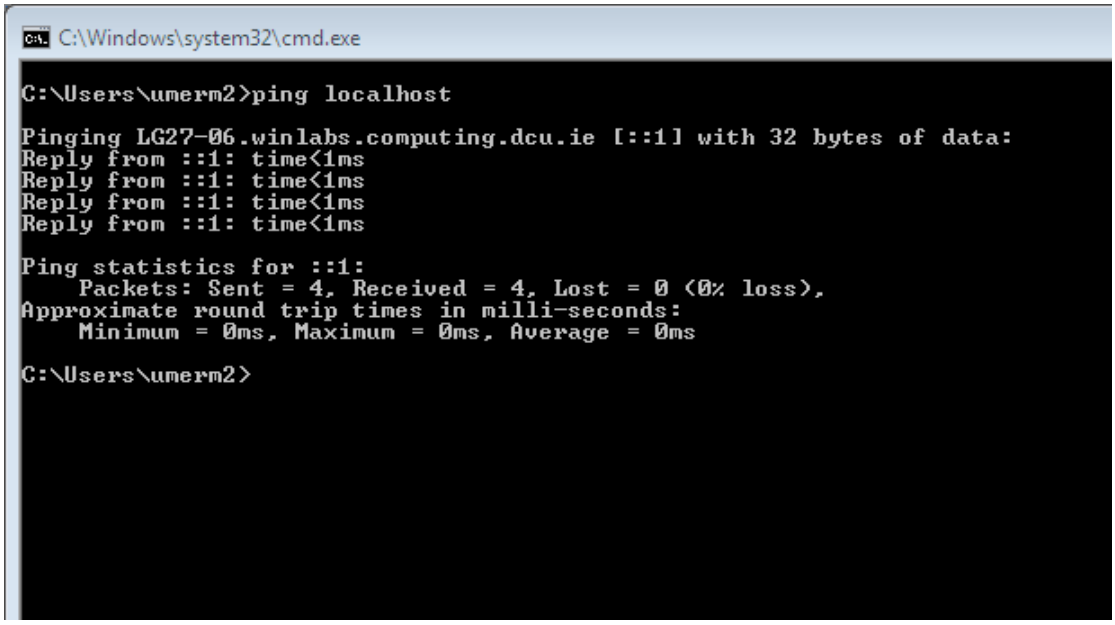
What is displayed?

- Ping commands are displayed with their descriptions along with the usage options for ping.



Ping exercise 2

Ping localhost



1. What information is returned?
2. What is the localhost?

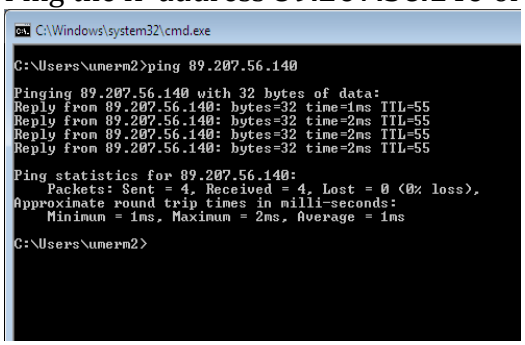
Answer 1

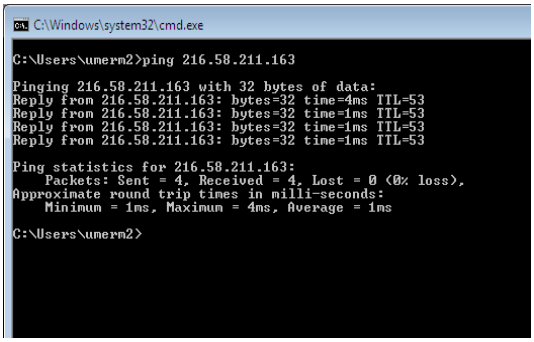
- First line shows the hostname and the IP address of the local host along and it is telling us that it has pinged the localhost with 32 bytes of data.
- The next four line shows us the reply received from localhost and how long it took to get a reply which is known as the round-trip time.
- The last few lines shows us the statistics of the packets which were sent, and it tells us how many of them were sent and received successfully and how many were lost along with the information of their round-trip times in milliseconds.

Answer 2

- LG27-06.winlabs.computing.dcu.ie in my case, is the hostname of the machine which is being used by a user currently.

Ping the IP address **89.207.56.140** or the address **216.58.211.163**





Explain output here, item by item.

- 1st line tells us that we are pinging the IP address 89.207.56.140 by sending 32 bytes of data.
- Lines 2-5 shows us the reply from that IP address of those sent packets, their size in bytes, the time for the reply and the time to live limit for those packets which was 55ms and it tells it to abandon any packets which takes any longer time than time to live.
- Lines 6-7 tells us the amounts of packets sent (4) and received (4) and how many are lost (0) with percentage in this process.
- Line 8-9 tells us the min(1ms) and max(2ms) and the average(1ms) time taken those round trips

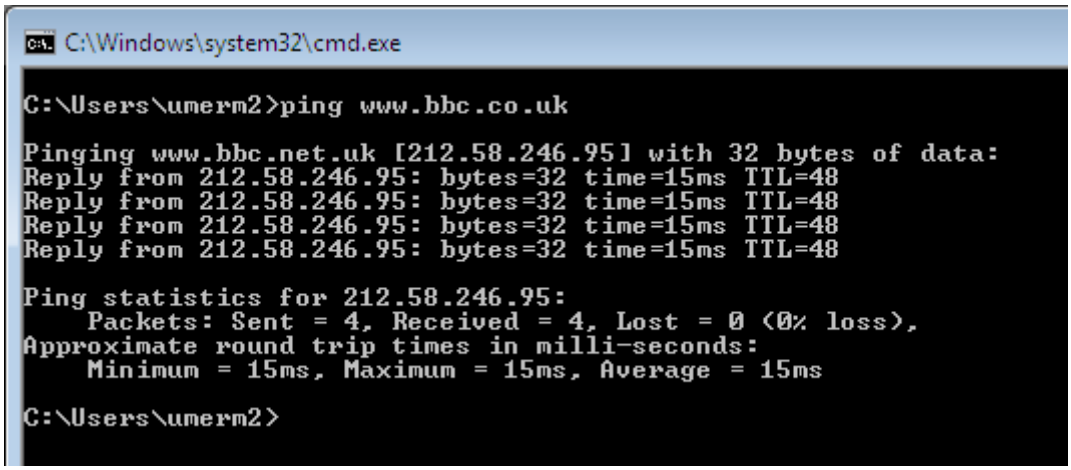
- 1st line tells us that we are pinging the IP address 216.58.211.163 by sending 32 bytes of data.
- Lines 2-5 shows us the reply from that IP address of those sent packets, their size in bytes, the time for the reply and the time to live limit for those packets which was 53ms and it tells it to abandon any packets which takes any longer time than time to live.
- Lines 6-7 tells us the amounts of packets sent (4) and received (4) and how many are lost (0) with percentage in this process.
- Line 8-9 tells us the min(1ms) and max(1ms) and the average(1ms) time taken those round trips took.

- URL: https://www.rte.ie/
- Owner: Irish Government
- Phone No: (01) 208 3434
- Postal Address: RTÉ, Donnybrook, Dublin 4
- Extras: n/a
- Explanation: Using Wikipedia and other websites.

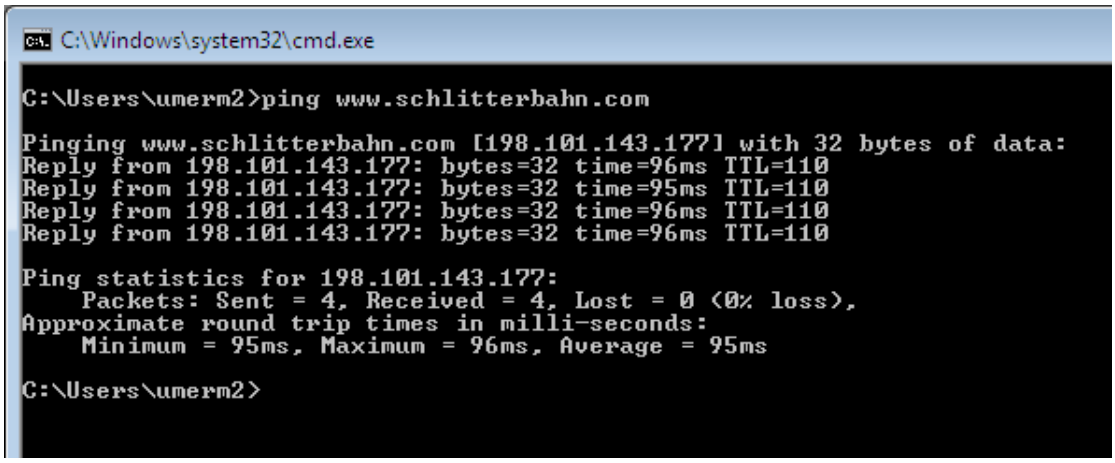
- URL: https://www.google.ie/
- Owner: Larry Page and Sergey Brin
- Phone No: (01) 543 1000
- Postal Address: Gordon House, Barrow St, Dublin 4
- Extras: n/a
- Explanation: Using Wikipedia and other websites

Exercise 3

Paste window 1



Paste window 2



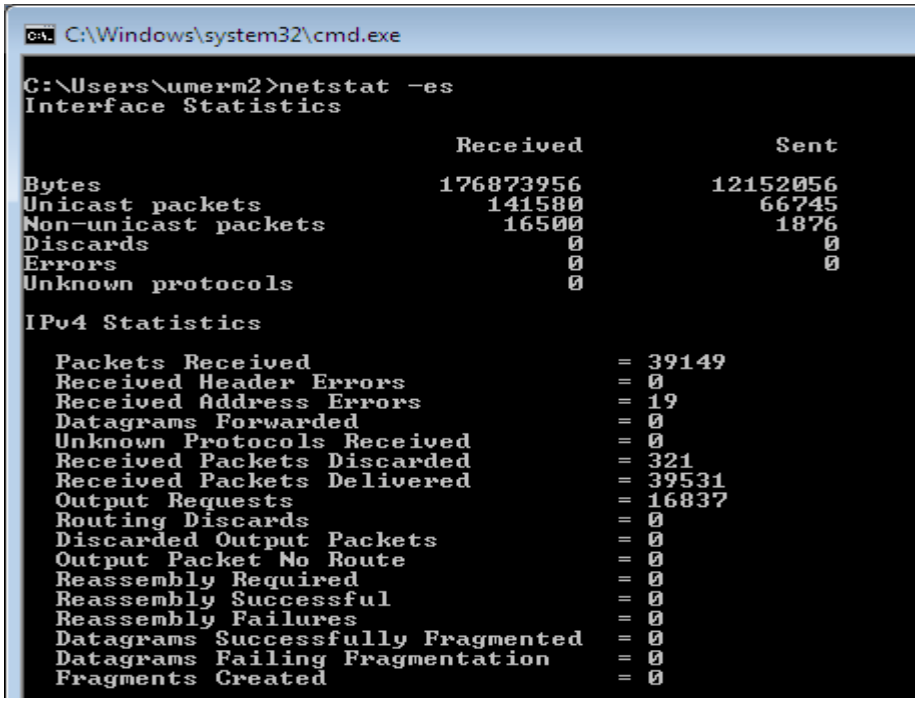
	Website 1	Website 2
Name of the website pinged	www.bbc.co.uk	www.schlitterbahn.com
What is the IP address returned?	212.58.246.95	198.101.143.177
What is the TTL figure?	48	110
Average round trip time	15ms	95ms

Your comments on administrative information that you found by searching on the Internet about the websites from experiment 3. Things like, who owns it, phone numbers, email addresses, registered addresses etc, anything at all that tells us about the website and its administration.

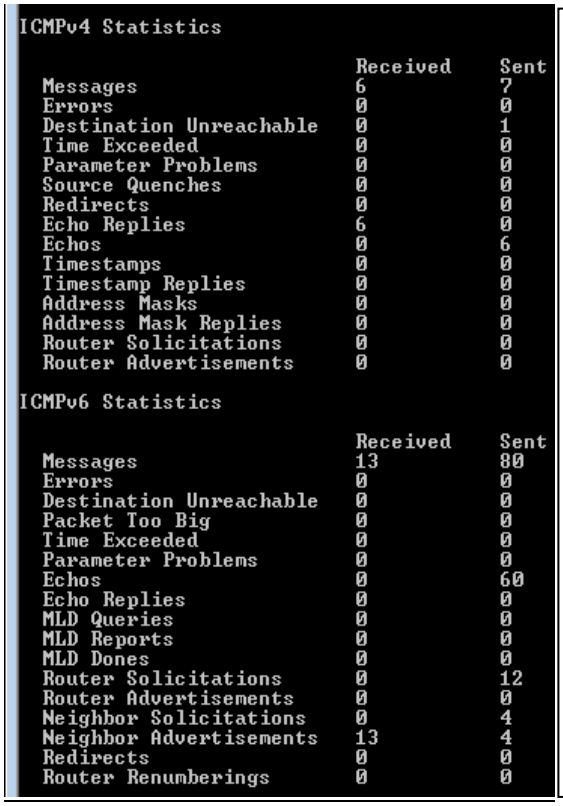
Website 1: www.bbc.co.uk
Admin Name: Domain Manager
Admin Organisation: British Broadcasting Corporation
City: London
Phone: +44 02080083539
Email: newswatch@bbc.co.uk
Website 2: www.schlitterbahn.com
Name/Organisation: Schlitterbahn Waterpark and Resorts
Address: 33261 State Park Road 100, South Padre Island, Texas 78597
Phone: (855) 923-7543
Email: onlinehelp@schlitterbahn.com

Exercise 4: Netstat exercise

Number of packets received by workstation: 39149 packets

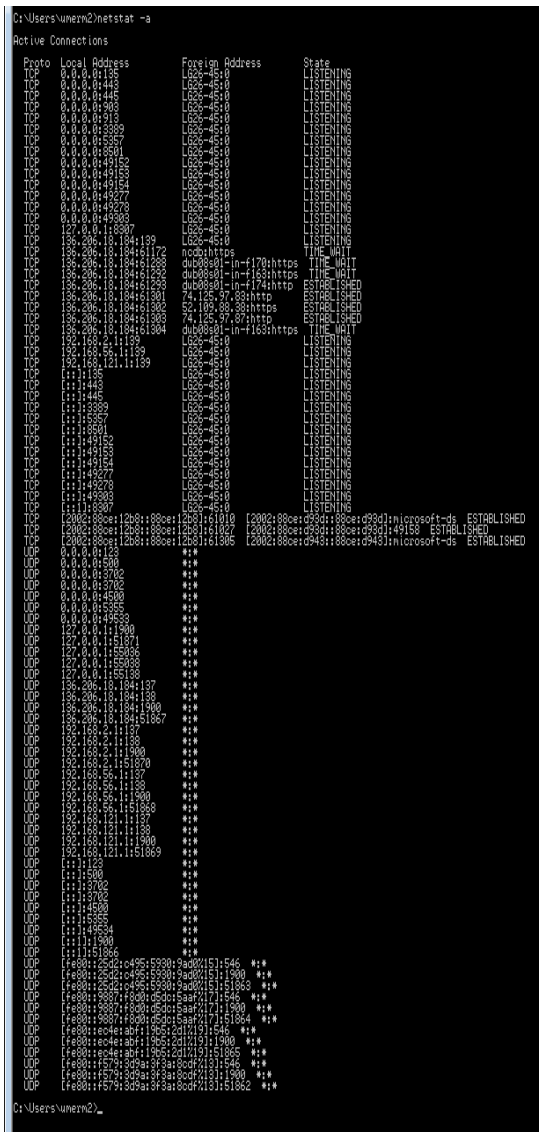


ICMP packets explained:



Internet Control Message Protocol (ICMP) is an internet protocol extension which is an error reporting protocol used by routers, hosts and network devices and when there is an error delivering IP packets it generates error messages. The picture beside shows the statistics on the ICMPv4 and ICMPv6. For ICMPv4, 7 messages were sent and 6 were received without error but the destination for one of them was unreachable so it was not received. For ICMPv6, 80 messages were sent and 13 were received without error. Ping works like a sonar and it sends information in small packets containing and ICMP echo request to a specified computer/network device and when the connections is

Discuss the connections opened by visiting the DCU website here.
Also, grab the window, showing connections opened as a result of visiting the DCU website.



Before opening web browser

After visiting DCU website

- The pictures above on the right show a significant increase in connections that were made after I visited DCU website compare to the one on the left.
- The connections were in established state which means they were connected to my computer device.

Netstat –r explained:

Netstat command with parameter –r shows the routing table for the computer's network adapter which contains addresses for other networks. Routing table can be found in any networking device and is used to determine the locations of where to send packets.