LAB 1

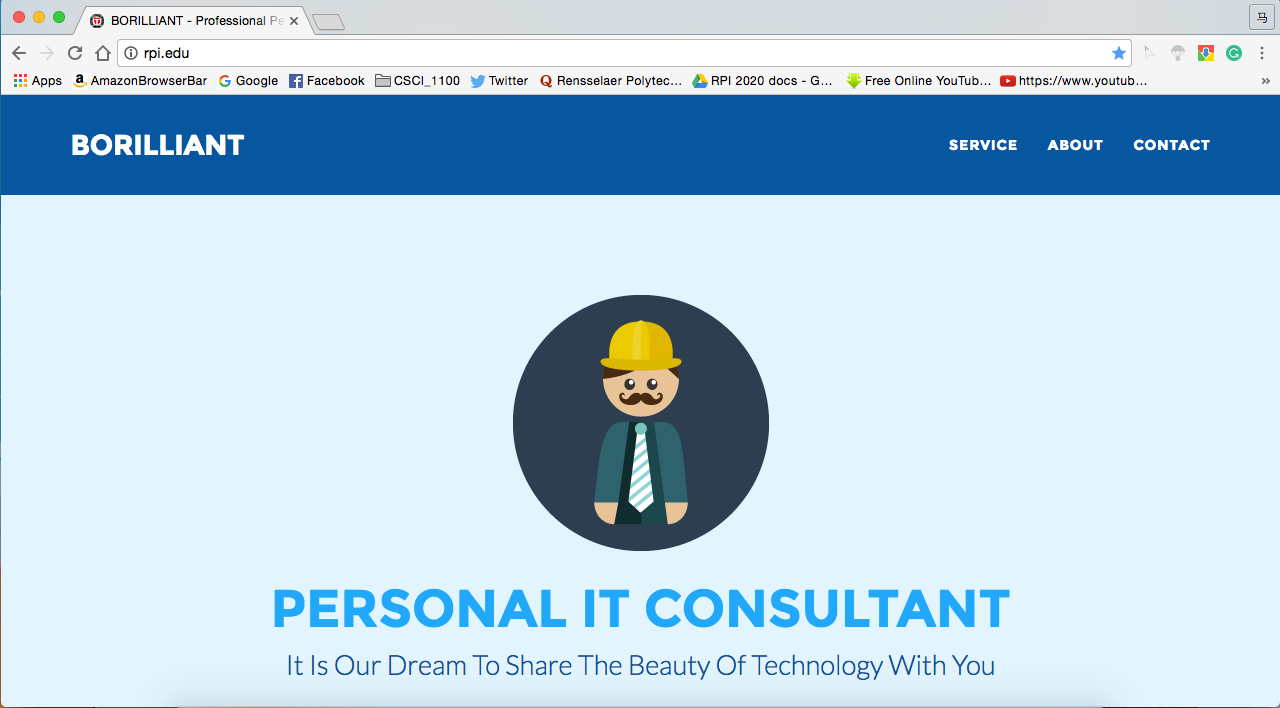
**1.Basic Network Information**

**a.ipconfig  
 1.What is your hostname?** bobma  
  **2.What is your MAC address?** WIFI: e0:f8:47:29:9b:d4  
 Ethernet: c8:2a:14:07:8e:39  
 **3.Who is the vendor of your Ethernet adapter?** Apple  
  **4.What is your IPv4 address?** 129.161.48.165  
 **5.What is your IPv6 address?** 2620::2820:d04:e2f8:47ff:fe29:9bd4  
 2620::2820:d04:c4f:a5ef:16b1:8d8c temporary  
  **6.What are the IP (v4) addresses of your DNS servers?** 128.113.28.67  
 128.113.26.77   
  **7.What is the IP (v4) address of your default gateway?** 129.161.49.254  
  
  **b.netstat -4 –f (netstat –f inet)  
 1.What kind of transport layer protocols are in use?** TCP 4  
 UDP 4  
 UDP 46  
  **2.What kind of application layer protocols are in use?** https  
 http

**c.netstat -4 –b (netstat –b –f inetp)  
 1.What applications are using your network ports, and what application layer protocol are they using? (only name up to three)**  
 Safari Https  
 Chrome https  
  
  **d.nslookup 192.0.32.10  
 nslookup it allows you to look up IPs or hostnames against a name server (by default, the first DNS server configured in your network settings).  
 1.Upon running “nslookup 192.0.32.10”, what is the host name of the name server you are using?** 192.in-addr.arpa nameserver = y.arin.net.  
 192.in-addr.arpa nameserver = r.arin.net.  
 192.in-addr.arpa nameserver = arin.authdns.ripe.net.  
 192.in-addr.arpa nameserver = x.arin.net.  
 192.in-addr.arpa nameserver = z.arin.net.  
 192.in-addr.arpa nameserver = u.arin.net.  
 **2.What name is associated with 192.0.32.10? What is the significance of this name?** 10.32.0.192.in-addr.arpa name = ccnso.icann.org  
 It's the domain name of its owner.  
  **3.Perform a “netstat –n” in your console (this tells netstat not to resolve names against the name server – notice that it’s quicker). Do an nslookup on a foreign IP from your netstat results. What name did you uncover? (If the DNS server can’t resolve the IP you picked, try another one.)** roundcube.rpi.edu for 128.113.2.23  
  **4.Do an “nslookup 127.0.0.1”. What name is returned? What is the significance of this name?** localhost  
 It's the address of my laptop for a inter-net.  
 **5.What is the IP address of rpilms.rpi.edu?** 128.113.26.134  
 **6.What is the IP address of www.rpi.edu? Is it IPv4 or IPv6?**   
 128.113.0.2  
 IPv4

**e.tracert -4 www.ucla.edu (traceroute www.ucla.edu)  
 1.How many hops did it take for you to reach www.ucla.edu?** 13 hops  
  **2.From the tracert you just ran, locate an IPv4 address of a router along the path. Visit http://www.iplocation.net/ and enter the IPv4 address. Were you able to determine the router’s location? If so, where is it?** Yes, it's in LA, CA with latitude 34.070251464844 and longitude -118.44759368896.  
  **3.Enter your own IPv4 address in the website. What did you learn?**  
 My own IPv4 address is like my real address, which means it need to be hided, because I may not want to public my home address to everyone online.   
  
**2.SSH to RCS-Linux  
  
 a.netstat -e**  **1.What transport layer protocols do you see in use?** TCP  
 **2.What application layer protocols do you see in use?** SSH  
  **b.host www.rpi.edu**  **1.What IPv4 addresses are used by www.rpi.edu?**   
 rpi.edu has address 128.113.0.2  
 **c.traceroute www.google.com  
 1.How many hops did it take to get to Google?**   
 13 hops  
 **d.In your Windows Command Prompt console use netstat (as in section 1.b) to find your current SSH connection. Copy the netstat line showing the SSH connection to here.**  
 Proto Recv-Q Send-Q Local Address Foreign Address State  
 tcp 0 0 rmtacc26-la.rcs.rpi.edu:ssh swains-87.dynamic2.rp:49880 ESTABLISHED   
 tcp 0 0 rmtacc26-la.rcs.rpi.edu:ssh palmyra-atoll-71.dyna:56450 ESTABLISHED   
 tcp 0 0 rmtacc26-la.rcs.rpi.edu:ssh swains-23.dynamic2.rp:58356 ESTABLISHED

**3.Overriding DNS**

**Use jEdit, notepad or some other text editor to edit your hosts file: C:\Windows\System32\drivers\etc\hosts (/etc/hosts on linux/unix). Using the examples in the comments at the top of the hosts file as a guide, give www.rpi.edu a new host name – you can use any IP address of www****.rpi.edu for this exercise (you need only one IP).  
 Visit the new hostname in your browser and capture a screenshot of the browser window. (CTRL-SHIFT-ALT P4rntScrn)   
 Paste the screenshot here.(I’d encourage you to now return your hosts file to its original state. Then clear your Browser’s cache).)**