Exercise 1: **Using Telnet to interact with a Web Server**

***GdeMacBook-Pro:~ g$ telnet vision.ucla.edu 80***

*Trying 131.179.176.147...*

*Connected to vision.ucla.edu.*

*Escape character is '^]'.*

***GET / HTTP/1.1***

***host: www.vision.ucla.edu (Important Note : You will have to press the carriage return twice after typing the last line.)***

*HTTP/1.1 200 OK*

*Date: Thu, 02 Aug 2018 23:47:24 GMT*

*Server: Apache/2.2.11 (Ubuntu) PHP/5.3.2-1ubuntu4.29 with Suhosin-Patch*

*Last-Modified: Tue, 19 Jun 2018 19:45:58 GMT*

*ETag: "290538-1b5e-56f03ee59c980"*

*Accept-Ranges: bytes*

*Content-Length: 7006*

*Content-Type: text/html*

*<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">*

*<html xmlns="http://www.w3.org/1999/xhtml">*

*<head>*

*<meta http-equiv="content-type"*

*content="text/html; charset=iso-8859-1" />*

*<meta name="robots"*

*content="all" />*

*<meta name="generator"*

*content="VLWeb.py" />*

*<meta name="generatorversion"*

*content="alpha" />*

*<title>UCLA Vision Lab</title>*

*<!-- Include VLWeb CSS stylesheet and JavaScript functions -->*

*<link rel="stylesheet"*

*type="text/css"*

*href="styles.css"/>*

*<!--[if IE 6]>*

*<link rel="stylesheet"*

*type="text/css"*

*href="ie.css"/>*

*<![endif]-->*

*<script type="text/javascript" src="scripts.js">*

*</script>*

*</head>*

*<body>*

*<table id="frame">*

*<tr>*

*<td id="shadowLeft">&nbsp;</td>*

*<td id="container">*

*<!-- ............................................................. -->*

*<div id="headContainer">*

*<span id="logo">*

*<span id="ucla">UCLA</span><span id="vision">VISION</span><span id="lab">LAB</span>*

*</span>*

*<ul id="browse">*

*<li class="current"><a href='index.html'>Home</a></li>*

*<li><a href='projects.html'>Projects</a></li>*

*<li><a href='people.html'>People</a></li>*

*<li><a href='publications.html'>Publications</a></li>*

*<li><a href='join.html'>Join</a></li>*

*</ul>*

*</div>*

*<!-- ............................................................. -->*

*<div id="contentContainer">*

*<!-- file: home.html*

*author: Andrea Vedaldi*

*description: VisionLab WWW Front Page*

*-->*

*<img alt="cover"*

*src="figures/cover-a.jpg"*

*id="coverimg"*

*onMouseOver="coveron()"*

*onMouseOut="coverout()"*

*/>*

*<div class="infobox">*

*<h1>Address</h1>*

*<div>UCLA VisionLab</div>*

*<!-- <div>Boelter Hall #3811</div> -->*

*<div>Engineering VI #386</div>*

*<div>University of California, Los Angeles</div>*

*<div>405 Hilgard Ave, Los Angeles, 90095, CA, USA</div>*

*<div><a href="*

*http://maps.google.com/maps?q=UCLA+VisionLab&amp;ll=34.069014,-118.442847&amp;z=18&amp;t=h">*

*Google Map</a></div>*

*<br/>*

*<h1>Contacts</h1>*

*<div>Tel. +1 (310) 206 4137</div>*

*<div>Director <a href="http://www.cs.ucla.edu/~soatto">Prof. Stefano Soatto</a></div>*

*<br/>*

*<h1>Go to</h1>*

*<ul>*

*<li><a href="projects.html">Projects</a></li>*

*<li><a href="publications.html">Publications</a></li>*

*<li><a href="people.html">People</a></li>*

*<!-- <li><a href="meetings.html">Lab Meetings</a></li> -->*

*<li><a href="join.html">About joining the Lab</a></li>*

*<li><a href="old/">Old page</a></li>*

*</ul>*

*</div><!-- infobox -->*

*<div style="clear:both;">&nbsp;</div>*

*<p><span class="par-title">About the VisionLab.</span>*

*Researchers in the Vision Lab investigate how images,*

*i.e. measurements of light, can be used to infer properties of the*

*physical world such as shape, motion, location and material properties*

*of objects within. Such understanding is key to developing engineering*

*systems that can &ldquo;see&rdquo; and interact intelligently with the*

*world around them. For instance, images captured by*

*a <a href="http://www.magazine.ucla.edu/features/no\_drivers/">video*

*camera mounted on a car</a> can be processed by computers to infer a*

*model of its surroundings: Where are other vehicles, pedestrians,*

*generic obstacles; how they are moving etc. This in turn can be used*

*to navigate the car around obstacles towards its*

*destination. Vision-based driver assistant systems are already*

*available in the consumer market, and vision technology could help*

*reduce significantly the societal cost of 1.5 million fatalities every*

*year. Vision can also be used to analyze images captured in the*

*<a href="http://vision.ucla.edu/~tko/pubs/censrr2007.pdf">*

*environment</a> to understand the effects of climate change by*

*monitoring the behavior of animals and plants. Analysis of images of*

*the human body can also be used both for diagnostic purposes and for*

*planning interventions. These are just few of the applications that*

*Vision will enable in the near future. In the meantime, there are*

*fundamental mathematical and statistical questions yet unanswered, and*

*we are engaged in understanding the fundamentals of visual information*

*processing.</p>*

*<p>The UCLA Vision Lab is part o the School of Engineering at UCLA, and*

*has ties with activities in the <a href="http://www.math.ucla.edu/applied/">Mathematics department</a>, the <a href="http://visciences.ucla.edu/">Statistics department</a>, the <a href="http://cms.loni.ucla.edu/CCB/research.aspx">Neuroscience department</a>, and outside UCLA with*

*research groups at <a href="http://www.vision.caltech.edu/wikis/MURI05/">Caltech/Berkeley/MIT</a>, at*

*<a href="http://controls.ae.gatech.edu/avcs/">Georgia Tech/MIT</a> and*

*at <a href="http://cherokee.stanford.edu/%7Emuri/">Stanford/Berkeley</a>.*

*</p>*

*<p>*

*Our research is made possible by the generous support of AFOSR, NSF, ONR and the Keck Foundation.*

*</p>*

*<span class="par-title">Links.</span>*

*<ul class="links">*

*<li>*

*<a href="http://www.golemgroup.com">DARPA Grand Challenge Team</a>*

*</li>*

*<li>*

*<a href="http://www.loni.ucla.edu/CCB/">CCB: Center for Computational Biology</a>, a NIH*

*<a href="http://www.bisti.nih.gov/ncbc/">National Center for Biomedical Computing</a>*

*</li>*

*<li>*

*<a href="">CoMotion: Stanford/Berkeley/UCLA MURI on Computational Methods for Collaborative Motions</a>*

*</li>*

*<li>*

*<a href="http://controls.ae.gatech.edu/avcs/">Georgia Tech/MIT/UCLA MURI on Active Vision Control Systems</a>*

*</li>*

*<li>*

*<a href="http://www.cs.cmu.edu/%7Ecil/vision.html">Computer Vision Homepage</a>*

*</li>*

*<li>*

*<a href="http://www.cs.cmu.edu/%7Ecil/v-groups.html">Computer Vision Groups</a>*

*</li>*

*<li>*

*<a href="http://www.cens.ucla.edu/">CENS: Center for Embedded Networked Sensing</a>*

*</li>*

*<li>*

*<a href="http://lecs.cs.ucla.edu/GALORE/">GALORE: Globally Ad-hoc, Locally Regular embedded sensor systems</a>*

*</li>*

*<li>*

*<a href="http://www.dai.ed.ac.uk/CVonline/">CVonline (free WWW-based compendium of introductions to topics in computer vision)</a>*

*</li>*

*</ul>*

*</div>*

*<!-- ............................................................. -->*

*<div id="footerContainer">*

*<div class="validator">*

*<a href="http://validator.w3.org/check?uri=referer">*

*<img src="http://www.w3.org/Icons/valid-xhtml10-blue"*

*alt="Valid XHTML 1.0 Strict"*

*height="31"*

*width="88" />*

*</a>*

*</div>*

*Copyright (c) 2007 UCLA VisionLab*

*</div>*

*</td>*

*<td id="shadowRight">&nbsp;</td>*

*</tr>*

*</table>*

*<!-- Google Analytics -->*

*<script type="text/javascript" src="gatag.js"></script>*

*<script type="text/javascript">*

*var gaJsHost = (("https:" == document.location.protocol) ? "https://ssl."*

*: "http://www.");*

*document.write(unescape("%3Cscript src='" + gaJsHost +*

*"google-analytics.com/ga.js' type='text/javascript'%3E%3C/script%3E"));*

*</script>*

*<script type="text/javascript">*

*var pageTracker = \_gat.\_getTracker("UA-4936091-1");*

*pageTracker.\_initData();*

*pageTracker.\_trackPageview();*

*</script>*

*</body>*

*</html>*

*Connection closed by foreign host.*

Question 1: What is the content type of the response? What is the size of the response? When was the webpage last modified? Do you see an "Accept-Ranges" header field? What may this be used for?

*HTTP/1.1 200 OK*

*Date: Thu, 02 Aug 2018 23:47:24 GMT*

*Server: Apache/2.2.11 (Ubuntu) PHP/5.3.2-1ubuntu4.29 with Suhosin-Patch*

*Last-Modified: Tue, 19 Jun 2018 19:45:58 GMT*

*ETag: "290538-1b5e-56f03ee59c980"*

*Accept-Ranges: bytes ：Tell the client that we support breakpoint transfer（告诉客户端，我们是支持断点传输的）*

*Content-Length: 7006*

*Content-Type: text/html*

***GdeMacBook-Pro:~ g$ telnet vision.ucla.edu 80***

*Trying 131.179.176.147...*

*Connected to vision.ucla.edu.*

*Escape character is '^]'.*

***HEAD / HTTP/1.1***

***host: www.vision.ucla.edu***

*HTTP/1.1 200 OK*

*Date: Thu, 02 Aug 2018 23:59:34 GMT*

*Server: Apache/2.2.11 (Ubuntu) PHP/5.3.2-1ubuntu4.29 with Suhosin-Patch*

*Last-Modified: Tue, 19 Jun 2018 19:45:58 GMT*

*ETag: "290538-1b5e-56f03ee59c980"*

*Accept-Ranges: bytes*

*Content-Length: 7006*

*Content-Type: text/html*

Question 2: What is the content type of the response? What is the size of the response?

*Content-Length: 7006*

*Content-Type: text/html*

Question 3: Using telnet, find a way to get the people.html webpage from vision.ucla.edu

***GdeMacBook-Pro:~ g$ telnet vision.ucla.edu 80***

*Trying 131.179.176.147...*

*Connected to vision.ucla.edu.*

*Escape character is '^]'.*

***GET /people.html HTTP/1.1 (子页是people.html,host: www.vision.ucla.edu)***

***host:www.vision.ucla.edu***

*HTTP/1.1 200 OK*

*Date: Fri, 03 Aug 2018 00:09:05 GMT*

*Server: Apache/2.2.11 (Ubuntu) PHP/5.3.2-1ubuntu4.29 with Suhosin-Patch*

*Last-Modified: Tue, 19 Jun 2018 19:45:58 GMT*

*ETag: "290431-672b-56f03ee59c980"*

*Accept-Ranges: bytes*

*Content-Length: 26411*

*Content-Type: text/html*

*<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">*

*<html xmlns="http://www.w3.org/1999/xhtml">*

*<head>*

*<meta http-equiv="content-type"*

*content="text/html; charset=iso-8859-1" />*

*<meta name="robots"*

*content="all" />*

*<meta name="generator"*

*content="VLWeb.py" />*

*<meta name="generatorversion"*

*content="alpha" />*

*<title>UCLA Vision Lab</title>*

*<!-- Include VLWeb CSS stylesheet and JavaScript functions -->*

*<link rel="stylesheet"*

*type="text/css"*

*href="styles.css"/>*

*<!--[if IE 6]>*

*<link rel="stylesheet"*

*type="text/css"*

*href="ie.css"/>*

***…….***

*</body>*

*</html>*

*Connection closed by foreign host.*

Question 4: Why is there the need to include the host in the GET (and HEAD) HTTP 1.1 request messages?

*(?)*

**Exercise 2: Understanding Internet Cookies (unmarked, not to be included in the report)**

Question 1. Repeat steps 1-3 in the previous experiment for [www.google.com.au](http://www.google.com.au/). Does the site set a cookie in your browser? How can you tell by purely examining the HTTP response message received using telnet? How about www.vision.ucla.edu? Do you think this site will set a cookie in your browser?

No.

Question 2. Open a web browser (Firefox/IceWeasel/Mozilla preferred). Go to the browser preferences and remove all existing cookies. Open the google webpage and then view the cookies. How many cookies are stored on your machine? Which sites installed the cookies?

Only one cookie is stored in my machine. https://www.google.com.au/?gws\_rd=ssl

Question 3. Repeat the above steps for the vision.ucla.edu website. How many cookies are stored on your machine? Which sites installed the cookies? Is the answer inconsistent with the answer for Question 1? Explain why.

No

*Exercise3:*

*Q1: Which one is phrase returned from the server to the client browser??*