Assignment 1 Submission

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Link of pcap file : <https://drive.google.com/file/d/1Mt_P-iJzAmlhwG7flmhgBQqIa_XS7HTK/view?usp=sharing>

1. 1. Protocols in Application Layer – DNS, HTTP, LLMNR, MDNS, TLSv1.2, TLSv1.3, ALLJOYN-NS, SSDP, NBNS
   2. Protocols in Transport Layer – QUIC, TCP, UDP
   3. Protocols in Network Layer – ICMPv6, IPv4, IPv6
2. 1. A total of 1371726 bytes of data has been received while accessing <http://iitkgp.ac.in>
   2. A total of 221421 bytes of data has been received while accessing <https://www.cornell.edu>
3. 1. There are 40 DNS packets.

|  |  |
| --- | --- |
| Domain Name | IP |
| update.googleapis.com | 172.217.166.67 |
| aka.ms | 23.8.98.143 |
| a1992.dscd.akamai.net | 223.196.180.233 |
| a1992.dscd.akamai.net | 223.196.180.216 |
| clients.l.google.com | 216.58.199.174 |
| r6.sn-524pcxgpo-8u1e.gvt1.com | 103.211.111.145 |
| redirector.gvt1.com | 142.250.67.142 |
| safebrowsing.googleapis.com | 172.217.160.170 |
| e6653.dscf.akamaiedge.net | 23.9.188.196 |
| ana-cf-col-elb-78-567119012.eu-central-1.elb.amazonaws.com | 52.29.198.239 |
| ana-cf-col-elb-78-567119012.eu-central-1.elb.amazonaws.com | 18.194.140.82 |
| google.com | 216.58.203.46 |
| beacons-handoff.gcp.gvt2.com | 172.217.160.195 |
| beacons2.gvt2.com | 172.217.19.195 |

* 1. 192.168.43.221 is the IP of the DNS servers.



There is a total of 18 GET requests from http://iitkgp.ac.in.

* + 1. GET / HTTP/1.1

No response packet is found for this GET request.

* + 1. GET /resources/css/bootstrap.min.css;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
       1. 66 TCP segments are received for this GET request
       2. The total amount of data being received in the corresponding HTTP Response message is 141167 bytes
    2. GET /resources/css/font-awesome.css;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
       1. 15 TCP segments are received for this GET request
       2. The total amount of data being received in the corresponding HTTP Response message is 35495 bytes
    3. GET /resources/common\_css/common\_stylesheet.css;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
       1. 8 TCP segments are received for this GET request
       2. The total amount of data being received in the corresponding HTTP Response message is 19706 bytes
    4. GET /resources/css/home\_style.css;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
       1. 5 TCP segments are received for this GET request
       2. The total amount of data being received in the corresponding HTTP Response message is 8718 bytes
    5. GET /resources/images/hindi.png;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
       1. 3 TCP segments are received for this GET request
       2. The total amount of data being received in the corresponding HTTP Response message is 2196 bytes
    6. GET /resources/images/logo.png;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
       1. 9 TCP segments are received for this GET request
       2. The total amount of data being received in the corresponding HTTP Response message is 17250 bytes
    7. GET /resources/css/override.css;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
       1. 5 TCP segments are received for this GET request
       2. The total amount of data being received in the corresponding HTTP Response message is 6815 bytes
    8. GET /resources/images/nvsp3.png;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
       1. 4 TCP segments are received for this GET request
       2. The total amount of data being received in the corresponding HTTP Response message is 9123 bytes
    9. GET /resources/js/jquery.js;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
       1. 26 TCP segments are received for this GET request
       2. The total amount of data being received in the corresponding HTTP Response message is 95981 bytes
    10. GET /resources/js/bootstrap.min.js;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
        1. 15 TCP segments are received for this GET request
        2. The total amount of data being received in the corresponding HTTP Response message is 37058 bytes
    11. GET /resources/js/override.js;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
        1. 4 TCP segments are received for this GET request
        2. The total amount of data being received in the corresponding HTTP Response message is 8012 bytes
    12. GET /resources/js/navigation.js;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
        1. 3 TCP segments are received for this GET request
        2. The total amount of data being received in the corresponding HTTP Response message is 2176 bytes
    13. GET /resources/page\_js/jquery.tickerNews.min.js;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
        1. 3 TCP segments are received for this GET request
        2. The total amount of data being received in the corresponding HTTP Response message is 4183 bytes
    14. GET /resources/js/jquery.bootstrap.newsbox.min.js;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
        1. 3 TCP segments are received for this GET request
        2. The total amount of data being received in the corresponding HTTP Response message is 5456 bytes
    15. GET /resources/page\_js/home\_page.js;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
        1. 4 TCP segments are received for this GET request
        2. The total amount of data being received in the corresponding HTTP Response message is 4821 bytes
    16. GET /resources/common\_js/common\_js.js;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
        1. 3 TCP segments are received for this GET request
        2. The total amount of data being received in the corresponding HTTP Response message is 3024 bytes
    17. GET /resources/images/index.png;jsessionid=F0FC11B6A309B1589864A9D2C23D51E2 HTTP/1.1
        1. 6 TCP segments are received for this GET request
        2. The total amount of data being received in the corresponding HTTP Response message is 5750 bytes