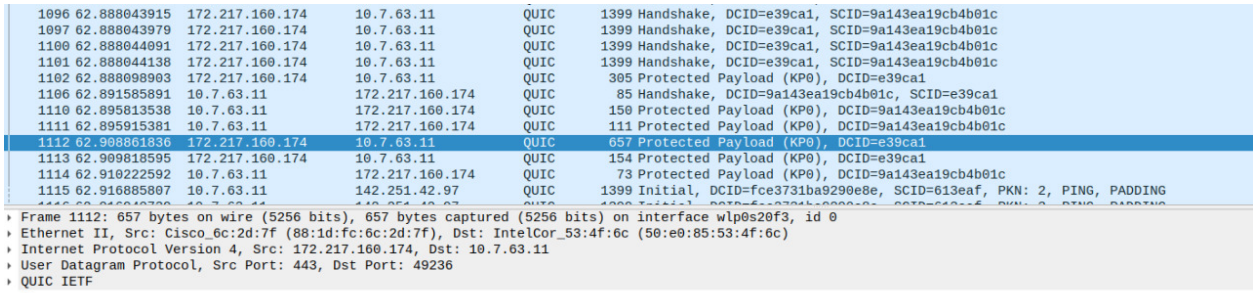
5a:

Upon doing usual browsing, I noticed these five protocols, which were not discussed in class.

1. **MDNS**: multicast DNA, it resolves hostnames to IP addresses with small networks. It uses UDP packets. RFC 6763
2. **NTP**: network time protocol, a networking protocol for clock synchronization of systems over packet-switched and variable latency data networks. RFC 5905
3. **OCSP**: online certificate status protocol, an internet protocol that is used for obtaining the revocation status of digital certificates. Firefox uses OCSP to validate HTTPS certificates. RFC 6960
4. **QUIC:** a general protocol for transport layer network protocol. Used by more than half of all connections from Chrome to Google servers. It improves performance of connection-oriented web applications that are using TCP by establishing multiplexed connection between two endpoints using UDP. RFC 9000
5. **ICMP**: Internet control message protocol, a supporting protocol in the suite of Internet protocols. It is used by network devices to send operational information indicating success or failure when communicating with other IP addresses. RFC 792

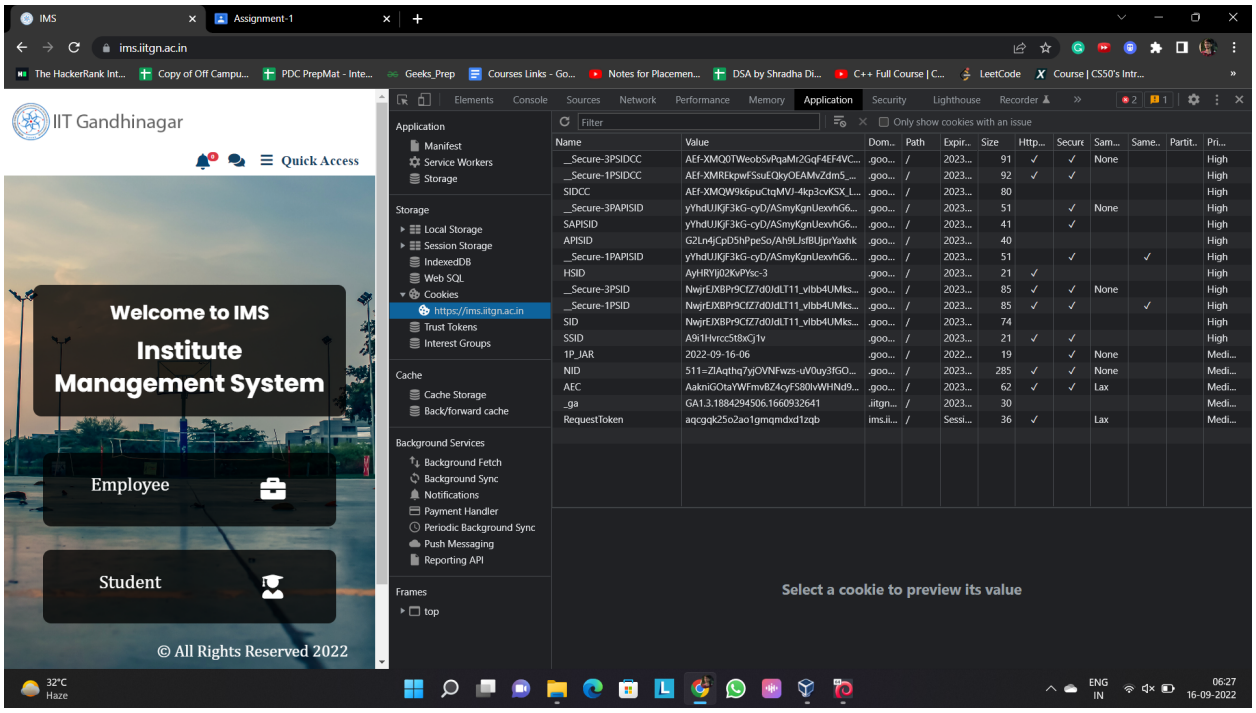
5b:



The packet number 1115 in the above image, uses QUIC to transfer a packet of data and setup the connection. So RTT = (62.916885807 - 62.910222592)

5c:

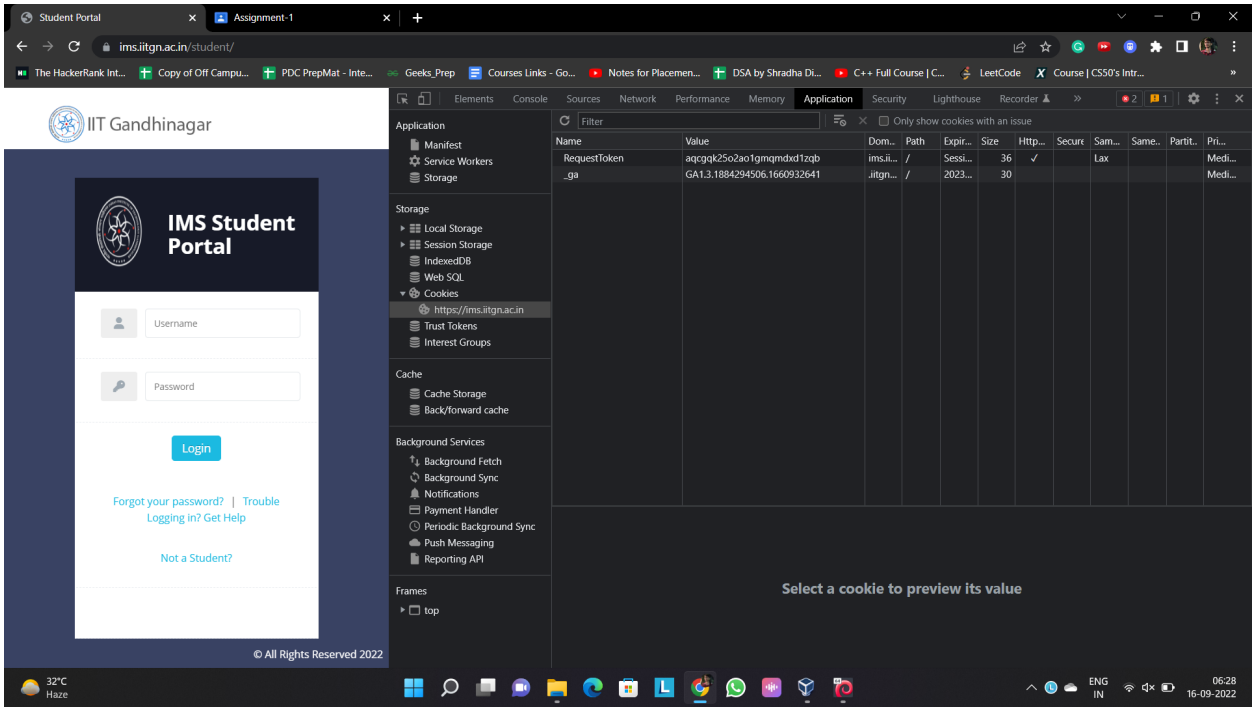
The image below shows the cookies structure, when visiting ims.iitgn.ac.in.



Some cookies observed are:

1. SSID: unique identifier for websites, used to track how a visitor uses a website and monitor performance of marketing campaigns.
2. SIDCC: identification of trusted web traffic.
3. NID: shows google ads in google services for signed-out users.
4. APISID: used by google to display personalized ads on google sites.

The image below shows the cookies when trying to login to ims portal.



Cookies observed are:

1. _ga: Google uses _ga cookie to recognise a unique combination of browser and device