Assignment 1:

Difference between HTTP and HTTPS

Hypertext Transfer Protocol, or HTTP for short, is a system for sending data over the World Wide Web (WWW). The WWW's data communication is built on this basis. Whereas, the term HTTPS refers to the secure version of the HTTP, which is used to send data over the internet by encoding all data transferred among the client and server, this protocol also enables secure contact over the internet.

The primary difference between HTTP and HTTPS is, HTTPS protects every piece of information sent back and forth between the client's computer and server, while HTTP doesn't. When a user establishes an HTTPS link to a website, the website displays a digital certificate that attests to the authenticity of the website.

In order to transmit data between a client (typically a web browser) and a server, two protocols are used known as HTTP and HTTPS. There are, however, a number of noteworthy distinctions between the two.

HTTPS is secured, whereas HTTP is not, which is the primary distinction between the two protocols. Data sent over HTTP is sent in clear text, making it accessible to anyone who captures the data. Password, credit card details, and other private data shouldn't be stored in this way. However, when sending data over HTTPS, etc. various encryption is used to secure the data.

Another major difference between HTTP and HTTPS is that while HTTPS used port 443, HTTP uses port 80. Depending on if HTTP or HTTPS had been used, the browser will begin connecting to the website using the correct port when a user enters a website url into their browser.

The use of encryption authentication and integrity are all features of HTTPS, which makes it a more secure form of HTTP overall. Most websites manages personal information, including e-commerce sites, banking websites, and social media platforms, sue it because it is crucial for protecting sensitive information transferred over the internet.

Assignment 2:

Github link: https://github.com/Narendra580718/220216_Narendra_Maharjan.git