**SUMMARY:**

The Project was based on Network communication using sockets. The main objective of the project was to write a client which will connect to server using sockets and get the html page from server. After having the HTML page as input, we need to parse the tags contained in HTML like <title>, <head>, <p>, <h1> <a href>, <img src> and so on, and display the content placed in between these tags vertically on our console. For Images, we need to again make a request to server for the file, and save it on our hard disk. The output is normal HTML content with all the tags removed from HTML page.

The constraint was not to use any of the JAVA libraries like HTTP, URL etc. But only to use Sockets for the connections to get the better insight as to what actually happens in the background. We used Input and output streams to send and receive the data via sockets. The main challenge in these project was to parse the tags, as using inbuilt Java Libraries, all the Tags are automatically truncated, and we never care about how it was done. But the main motive here was to implement and see how tags are removed and we see a clear content on console. Moreover, for the Image parsing, we need to get the Image from server into Byte Array, convert it and save it onto hard disk which was again a Big Challenge for us.

We worked in a Team of 2 for this project (Yogesh Jeswani (ykj140030) & Siddharth Bathla (sxb149830). Initially, we started developing our code to connect to server using Sockets. We learnt different functionalities in Socket class and see what we can use for our project. Yogesh’s main role was to connect to the server having the URL, getting the HTML output as an Input for parsing, and Siddharth’s main role was to use the HTML content as input and parse the tags and display output on to console. Then, Yogesh worked on to how to get the Image content on to our Hard Disk.

As a combined effort, we learnt many things. We got to know the in and out of how to use sockets, how to work with Input and Output Streams, How to work with String functions and how to parse the data. We used many functions of String such as repalceall, split functions to get the things done. We also learnt many things about the stream writers and readers which I think is quite difficult to learn unless and until you are practically working on it. We discovered new way of programming approach by working in parallel manner and integrating the code from time to time.

The end result was, our program will take the Input as a Command Line argument from Command Prompt, and displays the HTML content with all the tags removed vertically. For Images, It will save the file with .jpg or .png format on current path.