**Ex No:5**

**Date:**

**TCP/IP DAY-TIME SERVER**

**GIVEN REQUIREMENTS:**

There are two hosts, Client and Server. The Client requests the concurrent server for the date and time. The Server sends the date and time, which the Client accepts and prints.

**TECHNICAL OBJECTIVE**:

To implement a TCP/IP day time server (concurrent server) that handles multiple client requests. Once the client establishes connection with the server, the server sends its day-time details to the client which the client prints in its console.

**METHODOLOGY:**

**Server:**

* Include the necessary header files.
* Create a socket using socket function with family AF\_INET, type as SOCK\_STREAM.
* Initialize server address to 0 using the bzero function.
* Assign the sin\_family to AF\_INET, sin\_addr to INADDR\_ANY, sin\_port to statically assigned port number.
* Bind the local host address to socket using the bind function.
* Within a for loop, accept connection request from the client using accept function.
* Use the fork system call to spawn the processes.
* Calculate the current date and time using the ctime() function. Change the format so that it is appropriate for human readable form and send the date and time to the client using the write function.

**Client:**

* Include the necessary header files.
* Create a socket using socket function with family AF\_INET, type as SOCK\_STREAM.
* Initialize server address to 0 using the bzero function.
* Assign the sin\_family to AF\_INET.
* Get the server IP address from the console.
* Using gethostbyname function assign it to a hostent structure, and assign it to sin\_addr of the server address structure.
* Request a connection from the server using the connect function.
* Within an infinite loop, receive the date and time from the server using the read function and print the date and time on the console.