Sockets are the endpoints of the communication channel, both clients and servers have to use sockets to communicate.

Once a connection is established you can put data into your socket and it will make its way to the other end, where the receiver will read from the socket to process incoming data.

Using Sockets in Ruby

TCP Server

We need to tell the socket to bind to an interface, then listen on it, and finally to accept incoming connections.

```ruby
require 'socket'

puts "Starting the Server..................."

server = TCPServer.open(3000) # Server would listen on port 2000

loop{                              # Servers run forever

  client_connection = server.accept # Establish client connect connection

  client_connection.puts(Time.now) # Send the time to the client

  client_connection.puts("Closing the connection with #{client_connection}")

  client_connection.close      # Disconnect from the client

}
```

TCP Client

```ruby
require 'socket'

socket = TCPSocket.open("localhost", 3000)

puts "Starting the Client.................."

while message = socket.gets          # Read lines from the socket

  puts message.chomp

end



puts "Closing the Client.................."

socket.close                        # Close the socket
```

Accepting Multiple Clients

TCP Server

```ruby
require 'socket'

puts "Starting the Server.................."

server = TCPServer.open(3000) # Server would listen on port 2000

loop{                               # Servers run forever

  client_connection = server.accept # Establish client connect

connection

  Thread.start(client_connection) do |connection|

    connection.puts(Time.now) # Send the time to the client
```

```ruby
    connection.puts("Closing the connection with
#{client_connection}")

    connection.close      # Disconnect from the client

  end

}
```

TCP Client

```ruby
require 'socket'

socket = TCPSocket.open("localhost", 3000)


puts "Starting the Client.................."
while message = socket.gets              # Read lines from the socket

  puts message.chomp

end


puts "Closing the Client.................."
socket.close                     # Close the socket
```