***Chat backend Server Setup using Websocket***

**/Gemfile**

***source 'https://rubygems.org'***

***gem 'em-websocket'***

**Setting up WebSocket – channel based subscription**

***#lib/chat\_server.rb***

***require 'em-websocket'***

***module EventMachine***

***class Channel***

***attr\_reader :subs***

***end***

***end***

***EM.run do***

***@channels = Hash.new***

***EM::WebSocket.start(:host => '0.0.0.0', :port => 8080, :debug => true) do |socket|***

***socket.onopen do |handshake|***

***sid = channel\_for\_socket(socket, handshake.path).subscribe do |message|***

***socket.send message***

***end***

***socket.onmessage do |data|***

***channel\_for\_socket(socket, handshake.path).push(data)***

***end***

***socket.onclose do***

***channel\_for\_socket(socket, handshake.path).unsubscribe(sid)***

***end***

***end***

***end***

***# Channel based subscription***

***def channel\_for\_socket(socket, channel\_name)***

***path = channel\_name***

***@channels[path] ||= EM::Channel.new***

***end***

***end***

**HTML code for adding a textbox where user can type their message.**

***<!DOCTYPE html>***

***<html lang="en">***

***<head>***

***<meta charset="UTF-8">***

***<title>Ruby Websockets</title>***

***</head>***

***<body>***

***<div style="padding: 20px;">***

***<label for="txtWriteMessage"></label>***

***<input type="text" id="txtWriteMessage" placeholder="Type your message here">***

***<button id="btnSendMessage">Send</button>***

***<div id="messageHistory"></div>***

***</div>***

***</body>***

***</html>***

**JavaScript Code connected as client to listen(publish/subscribe) to websocket**

javaScript code to communicate with webSocket. In the following code, *channel\_1* is the name of the channel.

***<script>***

***var webSocket;***

***$(function () {***

***webSocket = new WebSocket("ws://localhost:8080/" + "channel\_1");***

***webSocket.onopen = function (event) {***

***// Do something on the open event of the WebSocket***

***};***

***webSocket.onmessage = function (event) {***

***$("#messageHistory").append("<p>" + event.data + "</p>");***

***};***

***webSocket.onopen = function (event) {***

***// Do something on the close event of the WebSocket***

***};***

***$("#btnSendMessage").on("click", function (e) {***

***e.preventDefault();***

***var txtMessage = $("#txtWriteMessage");***

***var message = $.trim(txtMessage.val());***

***if (message != "") {***

***webSocket.send(message);***

***txtMessage.val("");***

***}***

***});***

***})***

***</script>***