WebSocket

gfwebsocketechogfwebsocketHTML5https://github.com/gogf/gf/tree/master/.example/net/ghttp/server/websocket

HTML5

H5

```
<!DOCTYPE html>
<html>
<head>
    <title>gf websocket echo server</title>
    <link rel="stylesheet" href="//cdn.bootcss.com/bootstrap/3.3.5/css
/bootstrap.min.css">
    <script src="//cdn.bootcss.com/jquery/1.11.3/jquery.min.js"></script>
</head>
<body>
<div class="container">
    <div class="list-group" id="divShow"></div>
    <div>
        <div><input class="form-control" id="txtContent" autofocus rows="6"
placeholder=""></div>
        <div><button class="btn btn-default" id="btnSend" style="margin-top:
15px"> </button></div>
    </div>
</div>
</body>
</html>

<script type="application/javascript">
    //
    function showInfo(content) {
        $("<div class=\"list-group-item list-group-item-info\">" + content +
"</div>").appendTo("#divShow")
    }
    //
    function showWaring(content) {
        $("<div class=\"list-group-item list-group-item-warning\">" + content
+ "</div>").appendTo("#divShow")
    }
    //
    function showSuccess(content) {
        $("<div class=\"list-group-item list-group-item-success\">" + content
+ "</div>").appendTo("#divShow")
    }
    //
    function showError(content) {
        $("<div class=\"list-group-item list-group-item-danger\">" + content
+ "</div>").appendTo("#divShow")
    }

    $(function () {
        var url = "ws://127.0.0.1:8199/ws";
        var ws  = new WebSocket(url);
        try {
            // ws
            ws.onopen = function () {
                showInfo("WebSocket Server [" + url +"] ");
            };
            // ws
            ws.onclose = function () {
                if (ws) {
                    ws.close();
                    ws = null;
                }
                showError("WebSocket Server [" + url +"] ");
            };
            // ws
            ws.onerror = function () {
                if (ws) {
                    ws.close();
                    ws = null;
                }
                showError("WebSocket Server [" + url +"] ");
            };
            // ws
            ws.onmessage = function (result) {
                showWaring(" > " + result.data);
            };
```

```
        } catch (e) {
            alert(e.message);
        }

        //
        $("#btnSend").on("click", function () {
            if (ws == null) {
                showError("WebSocket Server [" + url +"] F5!");
                return;
            }
            var content = $.trim($("#txtContent").val()).replace("/[\n]/g",
"");
            if (content.length <= 0) {
                alert("!");
                return;
            }
            $("#txtContent").val("")
            showSuccess(content);
            ws.send(content);
        });

        //
        $("#txtContent").on("keydown", function (event) {
            if (event.keyCode == 13) {
                $("#btnSend").trigger("click");
            }
        });
    })

</script>

ws://127.0.0.1:8199/ws
```

- websocket
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WebSocket

```
package main

import (
    "github.com/gogf/gf/frame/g"
    "github.com/gogf/gf/net/ghttp"
    "github.com/gogf/gf/os/gfile"
    "github.com/gogf/gf/os/glog"
)

func main() {
    s := g.Server()
    s.BindHandler("/ws", func(r *ghttp.Request) {
        ws, err := r.WebSocket()
        if err != nil {
            glog.Error(err)
            r.Exit()
        }
        for {
            msgType, msg, err := ws.ReadMessage()
            if err != nil {
                return
            }
            if err = ws.WriteMessage(msgType, msg); err != nil {
                return
            }
        }
    })
    s.SetServerRoot(gfile.MainPkgPath())
    s.SetPort(8199)
    s.Run()
}
```

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1. **WebSocket** websockethttpg`http.Request.WebSocketr.WebSocket()`websocketWebSock etwebsocketwebsocketerror
2. **ReadMessage & WriteMessage** websocket(`ReadMessage & WriteMessage`)msgTypemsgT ypemsgType

HTTPSWebSocket

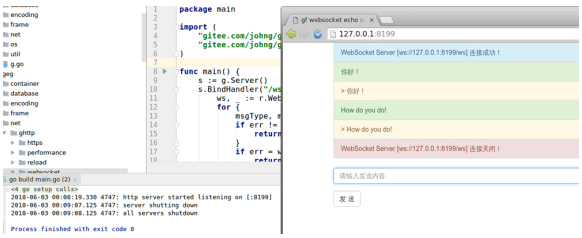
HTTPSWebSocketWebServerHTTPSWebSocket `wss://` HTML5WebSocket`wss://127.0.0.1:8199/wss`

```
package main

import (
    "github.com/gogf/gf/frame/g"
    "github.com/gogf/gf/net/ghttp"
    "github.com/gogf/gf/os/gfile"
    "github.com/gogf/gf/os/glog"
)

func main() {
    s := g.Server()
    s.BindHandler("/wss", func(r *ghttp.Request) {
        ws, err := r.WebSocket()
        if err != nil {
            glog.Error(err)
            r.Exit()
        }
        for {
            msgType, msg, err := ws.ReadMessage()
            if err != nil {
                return
            }
            if err = ws.WriteMessage(msgType, msg); err != nil {
                return
            }
        }
    })
    s.SetServerRoot(gfile.MainPkgPath())
    s.EnableHTTPS("../../https/server.crt", "../../https/server.key")
    s.SetPort(8199)
    s.Run()
}
```

`main.go` http://127.0.0.1:8199/websocket



Websocket

`gfwebsocket(origin)`websocket

1. `origin`: `r.WebSocket()``origin()``r.Exit()` 2. `websocket`:

WebSocket

`gf`WebSockethttps://github.com/gogf/gf-demo-chat

WebSocket client

```
func main() {
        client := ghttp.NewWebSocketClient()
        client.HandshakeTimeout = time.Second    //
        client.Proxy = http.ProxyFromEnvironment //
        client.TLSClientConfig = &tls.Config{}   //  tls

        conn, _, err := client.Dial("ws://127.0.0.1:9501", nil)
        if err != nil {
                panic(err)
        }
        defer conn.Close()

        err = conn.WriteMessage(websocket.TextMessage, []byte("hello
word"))
        if err != nil {
                panic(err)
        }

        mt, data, err := conn.ReadMessage()
        if err != nil {
                panic(err)
        }
        fmt.Println(mt, data)
}
```