

varshneyabhi**December 23, 2014**

- **in Networking, Programming, UDP**
- **5 Comments**

Simple UDP Client/Server in golang

Being a new language, the example codes are not easily available for Golang. For other languages like Java and C, just put a keyword in Google, you will find a lot examples for it. Same is not true for golang.

I faced the same issue for UDP Client and Server code. Finally I managed to code with help of few available examples.

First set the PATH for go by using following command.

```
export PATH=/path/to/go/bin:$PATH
```

Here is the code for the same.

Server: server.go

```
package main

import (
    "fmt"
    "net"
    "os"
)

/* A Simple function to verify error */
func CheckError(err error) {
    if err != nil {
        fmt.Println("Error: " , err)
        os.Exit(0)
    }
}

func main() {
    /* Lets prepare a address at any address at port 10001*/
    ServerAddr,err := net.ResolveUDPAddr("udp",":10001")
    CheckError(err)

    /* Now listen at selected port */
    ServerConn, err := net.ListenUDP("udp", ServerAddr)
    CheckError(err)
    defer ServerConn.Close()

    buf := make([]byte, 1024)

    for {
        n,addr,err := ServerConn.ReadFromUDP(buf)
        fmt.Println("Received ",string(buf[0:n]), " from ",addr)

        if err != nil {
            fmt.Println("Error: ",err)
        }
    }
}
```

Run this file with following command

```
go run server.go
```

Client: client.go

```
package main

import (
    "fmt"
    "net"
    "time"
    "strconv"
)

func CheckError(err error) {
    if err != nil {
        fmt.Println("Error: " , err)
    }
}

func main() {
    ServerAddr,err := net.ResolveUDPAddr("udp","127.0.0.1:10001")
    CheckError(err)

    LocalAddr, err := net.ResolveUDPAddr("udp", "127.0.0.1:0")
    CheckError(err)

    Conn, err := net.DialUDP("udp", LocalAddr, ServerAddr)
    CheckError(err)

    defer Conn.Close()
    i := 0
    for {
        msg := strconv.Itoa(i)
        i++
        buf := []byte(msg)
        _,err := Conn.Write(buf)
        if err != nil {
            fmt.Println(msg, err)
        }
        time.Sleep(time.Second * 1)
    }
}
```

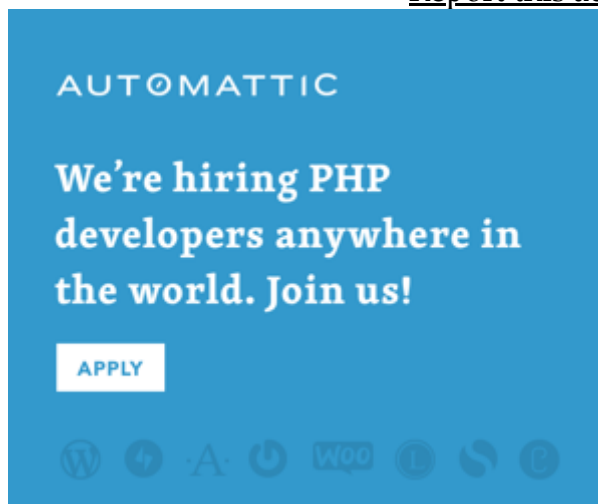
Run this file with following command in another terminal

```
go run client.go
```

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Tags: golang, Google Go, UDP

5 responses to “Simple UDP Client/Server in golang”

Oleg says : October 15, 2015 at 6:46 am
How to answer to client ?

REPLY

varshneyabhi says : February 15, 2016 at 12:20 pm

Hi, Sorry for [very] late reply, I am not following Golang for now, due to heavy workload at my workplace.

but for you question, once you receive connection request at server.go, you also receive client addr in that request. Use it to send a new message.

REPLY

Anton says : November 11, 2015 at 6:58 pm

Useful code, thanks for the post, improvements can be made to make this concurrent.

REPLY

look1forward says : January 9, 2016 at 10:47 pm

Hi, thanks for your post. It's very helpful.

But you've a mistake near

Run this file with following command in another terminal

go run server.go

I think there must be **go run client.go**

REPLY

varshneyabhi says : February 15, 2016 at 12:17 pm

thanks.. correction made.

REPLY

varshneyabhi

Blog at WordPress.com.