

LAPORAN CHALLENGE 4
PEMROGRAMAN JARINGAN C



Disusun Oleh :

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TAHUN PELAJARAN 2018/2019

Source Code Server Side:

```
1  import socket
2  import select
3  import sys
4  from thread import *
5
6  server=socket.socket(socket.AF_INET,socket.SOCK_STREAM)
7  server.setsockopt(socket.SOL_SOCKET,socket.SO_REUSEADDR,1)
8
9  IP_address = '127.0.0.1'
10 Port=8081
11 server.bind((IP_address,Port))
12 server.listen(100)
13
14 list_of_clients=[]
15
16 def clientthread(conn,addr):
17     while True:
18         try:
19             message=conn.recv(1024)
20             if message:
21                 print "<" + addr[0] + "> " + message
22                 #message_to_send= "<" + addr[0] + "> " + message
23                 with open(message,'w+') as file_to_write:
24                     print "telah membuat file"
25
26                 while True:
27                     data=conn.recv(1024)
28                     print data
29                     print ">menunggu data"
30
31                     print ">menerima data"
32                     file_to_write.write(data)
33                     if not data:
34                         print "tidak ada data"
35                         break
36                     print ">menulis data ke file"
37                     #file_to_write.write(data)
38                     #data=conn.recv(1024)
39                     file_to_write.close()
40                     break
41                 print ' receive success'
42                 broadcast(message,data,conn)
43             else:
44                 remove(conn)
45         except:
46             continue
47
48 def broadcast(message,data,connection):
49     for clients in list_of_clients:
50         if clients!=connection:
51             try:
52
```

```

53         clients.send(message)
54         with open(message, 'rb') as file_to_send:
55             #for data in file_to_send:
56                 #    server.sendall(data)
57             data=file_to_send.read(1024)
58             while(data):
59                 clients.send(data)
60                 data=file_to_send.read(1024)
61                 file_to_send.close()
62         except:
63             clients.close()
64             remove(clients)
65
66     def remove(connection):
67         if connection in list_of_clients:
68             list_of_clients.remove(connection)
69
70     while True:
71         conn,addr=server.accept()
72         list_of_clients.append(conn)
73         print addr[0] + " connected"
74         start_new_thread(clientthread,(conn,addr))
75
76     conn.close()
77     server.close()

```


Source Code Client Side:



```
1  import socket
2  import select
3  import sys
4  import msvcrt
5
6  server=socket.socket(socket.AF_INET,socket.SOCK_STREAM)
7  IP_address='127.0.0.1'
8  Port = 8081
9  server.connect((IP_address,Port))
10
11 while True:
12     sockets_list=[server]
13
14     read_sockets,write_socket,error_socket=select.select(sockets_list,[],[],1)
15     if msvcrt.kbhit(): read_sockets.append(sys.stdin)
16
17     for socks in read_sockets:
18         if socks==server:
19             #message=socks.recv(2048)
20             #print message
21             message=socks.recv(1024)
22             if message:
23                 #print "<" + addr[0] + "> " + message
24                 #message_to_send= "<" + addr[0] + "> " + message
25                 with open(message,'w+') as file_to_write:
26                     print "telah membuat file"
27
28                 while True:
29                     data=socks.recv(1024)
30                     print data
31                     print ">menunggu data"
32
33                     print ">menerima data"
34                     file_to_write.write(data)
35                     if not data:
36                         print "tidak ada data"
37                         break
38                     print ">menulis data ke file"
39                     #file_to_write.write(data)
40                     #data=conn.recv(1024)
41                     file_to_write.close()
42                     break
43                 print ' receive success'
44         else:
45             #message=sys.stdin.readline()
46             message=raw_input()
47             operand,filename=message.split(' ', 1)
48             server.send(filename)
49             if operand == "SEND":
50                 with open(filename,'rb') as file_to_send:
51                     #for data in file_to_send:
52                     #    server.sendall(data)
```


```
52         server.sendall(data)
53         data=file_to_send.read(1024)
54         while(data):
55             server.send(data)
56             data=file_to_send.read(1024)
57             file_to_send.close()
58
59         sys.stdout.write("<you> ")
60         sys.stdout.write(filename)
61         sys.stdout.write(" send success")
62         sys.stdout.flush()
63     server.close()
```

Pengerjaan:

1. Buat 3 folder, untuk client 1 , client 2, dan server

iboard	Organize	New	Open	Select
> This PC > Documents > @Kuliah > progjar > tugas4 > server				
Name	Date modified	Type	Size	
 chat1.py	3/4/2019 18:02	Python File	2 KB	

This PC > Documents > @Kuliah > progjar > tugas4 > client1				
Name	Date modified	Type	Size	
 chat2.py	3/4/2019 18:08	Python File	2 KB	
 fileclient1.txt	3/4/2019 18:06	Text Document	1 KB	

> This PC > Documents > @Kuliah > progjar > tugas4 > client2				
Name	Date modified	Type	Size	
 chat2.py	3/4/2019 18:08	Python File	2 KB	

2. Dapat dilihat bahwa file hanya berada pada client1

```
C:\Users\Asus\Documents\@Kuliah\progjar\tugas4\client2>python chat2.py
```

```
\Asus\Documents\@Kuliah\progjar\tugas4\client1>python chat2.py
```

```
C:\Windows\System32\cmd.exe - python chat1.py

C:\Users\Asus\Documents\@Kuliah\progjar\tugas4\server>python chat1.py
127.0.0.1 connected
127.0.0.1 connected
```

Lalu kita jalankan ketiga file diatas



Karna file berada di client 1 maka di client1 kita ketikkan SEND fileclient1.txt



```
<you> fileclient1.txt send success C
C:\Users\Asus\Documents\@Kuliah\progjar\tugas4\client1>python chat2.py
SEND fileclient1.txt
<you> fileclient1.txt send success
```

```
>nama file berada di client 1 maka di client1 kita ketikkan SEND fileclient1.txt
<you> fileclient1.txt send success
C:\Users\Asus\Documents\@Kuliah\progjar\tugas4\client1>python chat2.py
SEND fileclient1.txt
<you> fileclient1.txt send success
```

```
C:\Users\Asus\Documents\@Kuliah\progjar\tugas4\client2>python chat2.py
telah membuat file
Halo, ini file client 1
>menunggu data
>menerima data
>menulis data ke file
receive success
```

> This PC > Documents > @Kuliah > progjar > tugas4 > client2



Name	Date modified	Type	Size
 chat2.py	3/4/2019 18:08	Python File	2 KB
 fileclient1.txt	3/4/2019 18:27	Text Document	1 KB

Name	Date modified	Type	Size
 chat2.py	3/4/2019 18:08	Python File	2 KB
 fileclient1.txt	3/4/2019 18:27	Text Document	1 KB

6. Berikut tampilan pada server

```
C:\Users\Asus\Documents\@Kuliah\progjar\tugas4\server>python chat1.py
127.0.0.1 connected
127.0.0.1 connected
<127.0.0.1> fileclient1.txt
telah membuat file
Halo, ini file client 1
>menunggu data
>menerima data
>menulis data ke file
receive success
```

» This PC » Documents » @Kuliah » progjar » tugas4 » server

Name	Date modified	Type	Size
 chat1.py	3/4/2019 18:27	Python File	2 KB
 fileclient1.txt	3/4/2019 18:27	Text Document	1 KB