<(b_b)>

Hello! Emoji Chatter

프로그래밍 실습

PROJECT2 EMOJI CHATTER

2016314216 이상아

>> Key Features <<

>> Multi-Player Chatting

>> Emoji-Sender Server

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>> Emoji-Sender Server

+

>> Move stage to stage

>> Panel changes!

>> Get extermal Font

>> and set Font size

>> Key Features <<

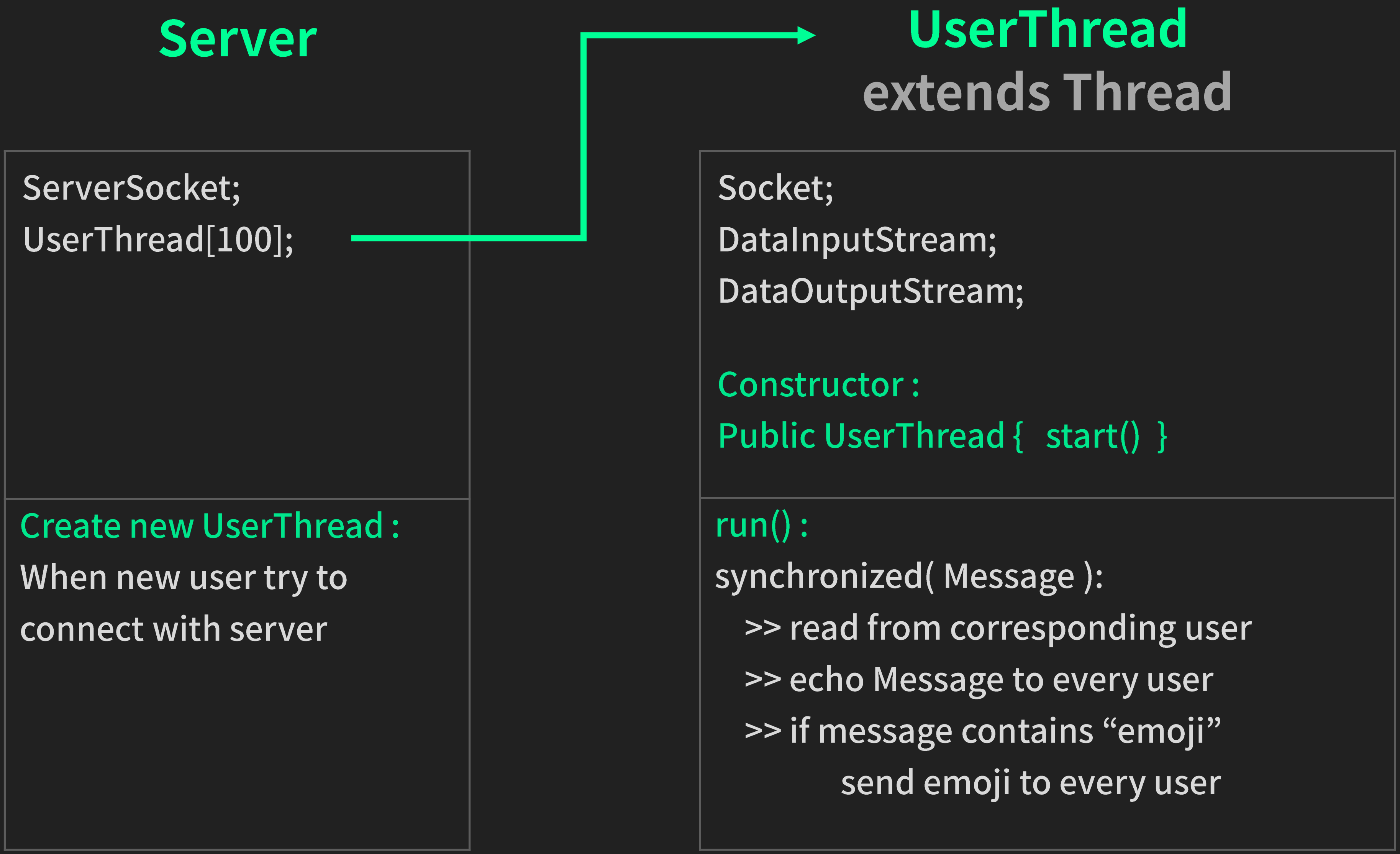
SERVER

and

CLIENT

```
>> SERVER

>> server manage N client
```



Server

ServerSocket;
UserThread[100];

Create new UserThread :
When new user try to
connect with server

UserThread
extends Thread

Socket;
DataInputStream;
DataOutputStream;

Constructor :
Public UserThread { start() }

run() :
synchronized(Message):
>> read from corresponding user
>> echo Message to every user
>> if message contains “emoji”
send emoji to every user

Server

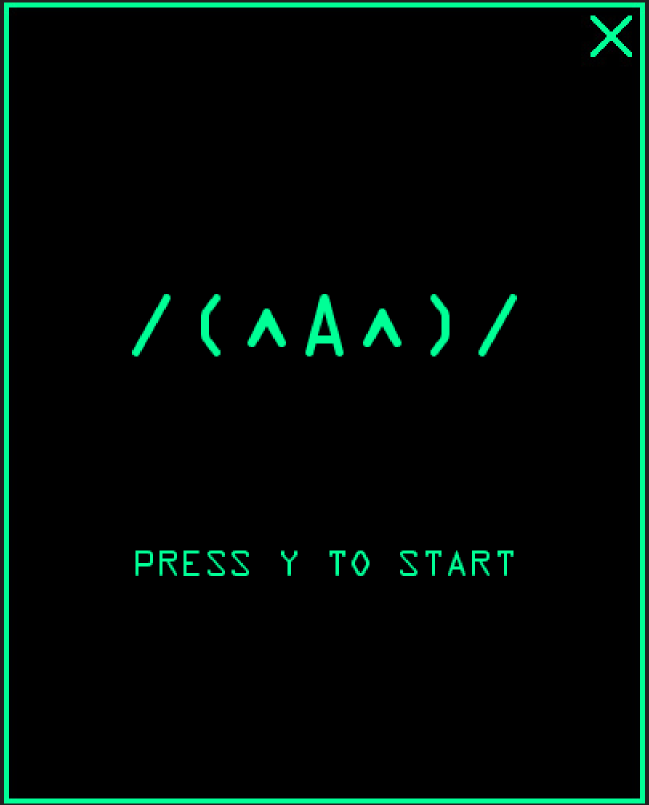
```
public class Server{
    .. .. ..
    try{
        while (true){
        // server will not end until terminal die / or exception occur
        // COND2 : get appropriate IP address from userInput and connect to server
        Socket AcceptSocket = ServerSocket.accept();
        User[userCount] = new UserThread(AcceptSocket, userCount, User);
        userCount++;
        System.out.println("SERV : waitcount "+userCount);
        }
```

UserThread

```java
public class UserThread extends Thread {
     .. .. ..
     public void run(){
          // COND3 : start chatting
          try{
               .. .. ..
               synchronized (MSG){
                    MSG = read();
                    if (MSG.equals("CONNECTION ERROR")){ return; }
                    MSG = socketNumber+":"+MSG;

               for (UserThread U : User){
                    if(U == null){ break; }
                    U.write(MSG); }
               // if sendmessage contains word 'emoji’,
               // server feel happy and send random emoji to everyone
               if (MSG.contains("emoji")){
                    String happyEmoji = ">>> server says " + getRandEmoji();
                    for (UserThread U : User){
                         if(U == null){ break; }
                         U.write(happyEmoji);
                    }
               }
          }
     }
}
```

```
>> Condition 1
>> Press Y to start
```



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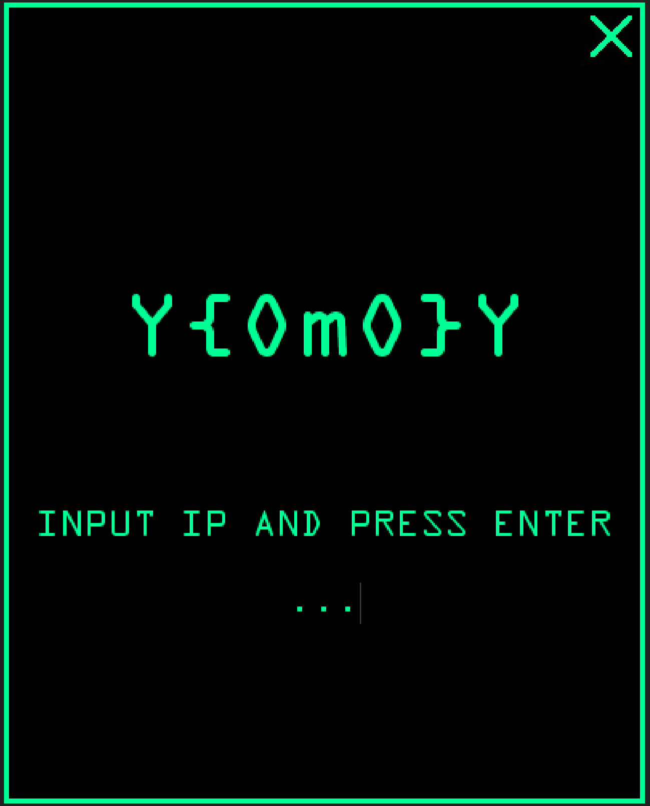
PRESS Y TO START

>> Condition 2

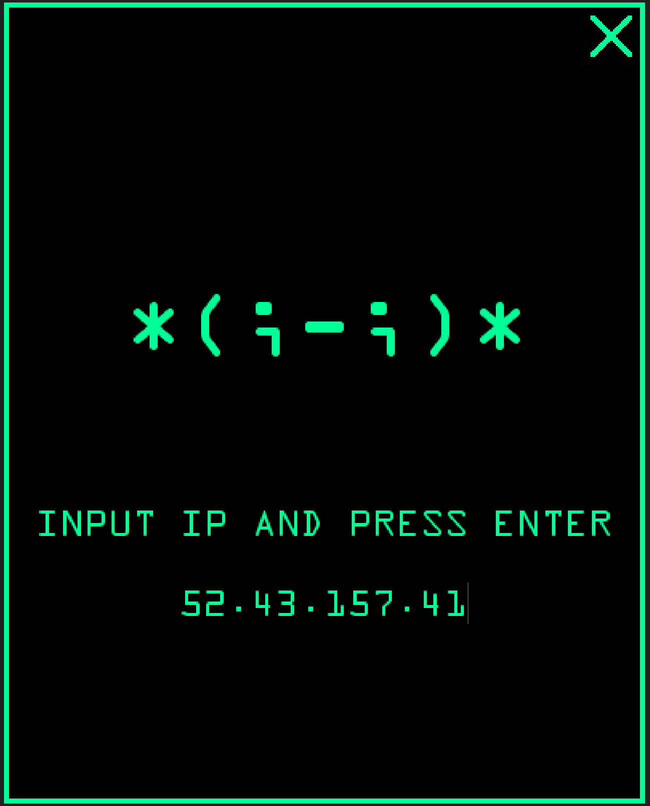
>> Input IP and Press Enter



Y{OmO}Y

INPUT IP AND PRESS ENTER

...



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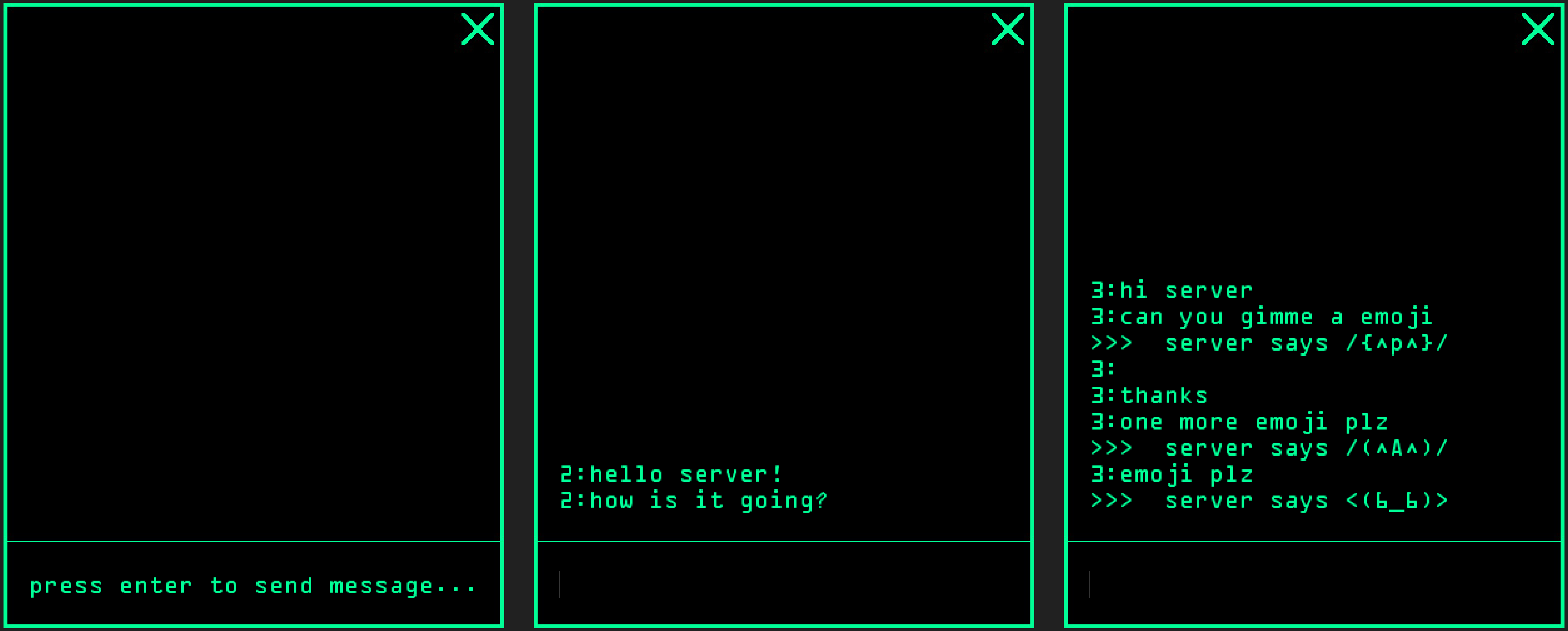
INPUT IP AND PRESS ENTER

52.43.157.41

```
>> Condition 3
>> Start chatting
```



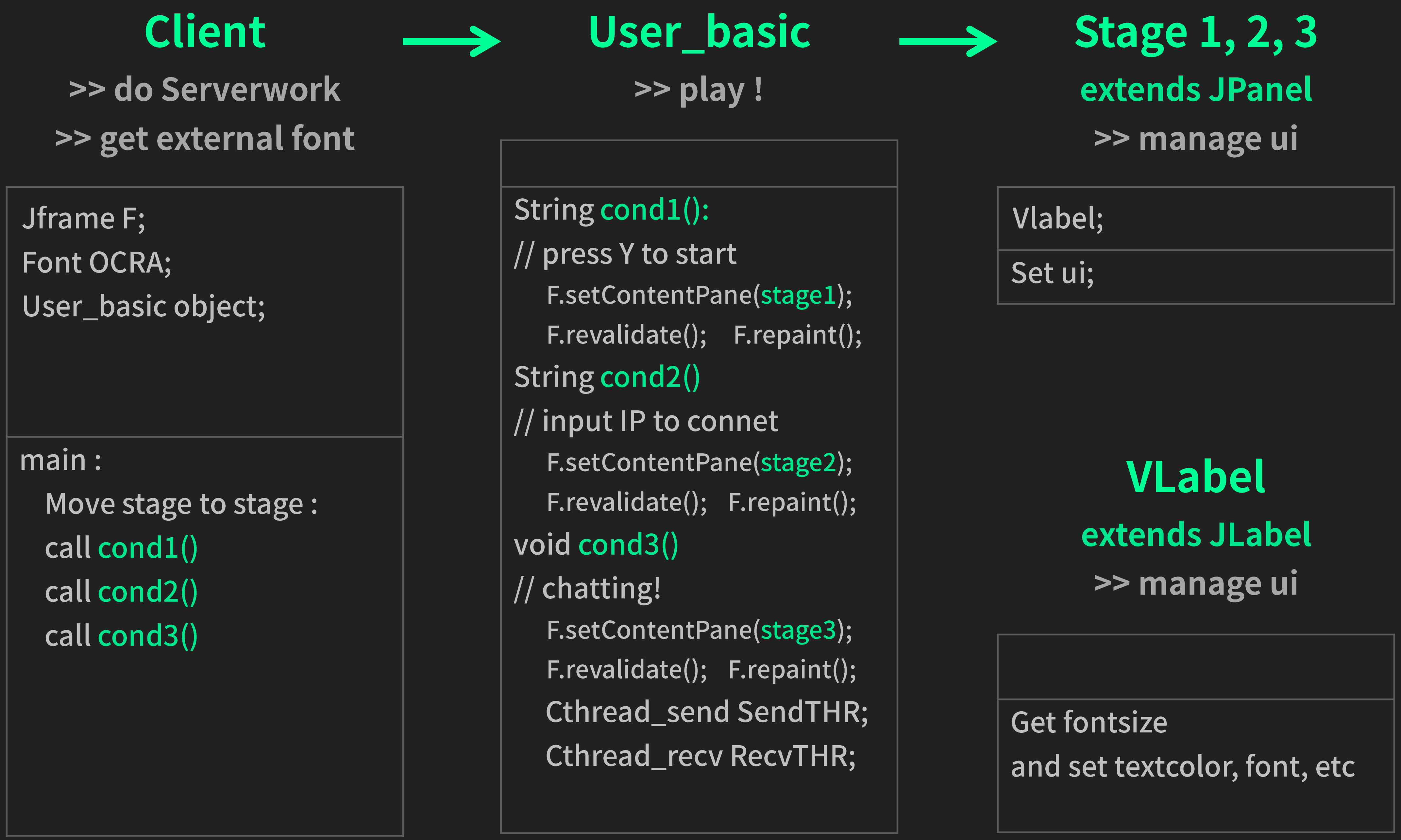
```
press enter to send message...
```

```
2:hello server!
2:how is it going?
```

```
3:hi server
3:can you gimme a emoji
>>>  server says /{^p^}/
3:
3:thanks
3:one more emoji plz
>>>  server says /(^Д^)/
3:emoji plz
>>>  server says <(ь_ь)>
```

```
>> CLIENT

>> 1 user 1 client program
```



Client

>> do Serverwork

>> get external font

```
Jframe F;
Font OCRA;
User_basic object;
```

```
main :
   Move stage to stage :
   call cond1()
   call cond2()
   call cond3()
```

User_basic

>> play !

```
String cond1():
// press Y to start
    F.setContentPane(stage1);
    F.revalidate();   F.repaint();
String cond2()
// input IP to connet
    F.setContentPane(stage2);
    F.revalidate();   F.repaint();
void cond3()
// chatting!
    F.setContentPane(stage3);
    F.revalidate();   F.repaint();
    Cthread_send SendTHR;
    Cthread_recv RecvTHR;
```

Stage 1, 2, 3

extends JPanel

>> manage ui

```
Vlabel;
```

```
Set ui;
```

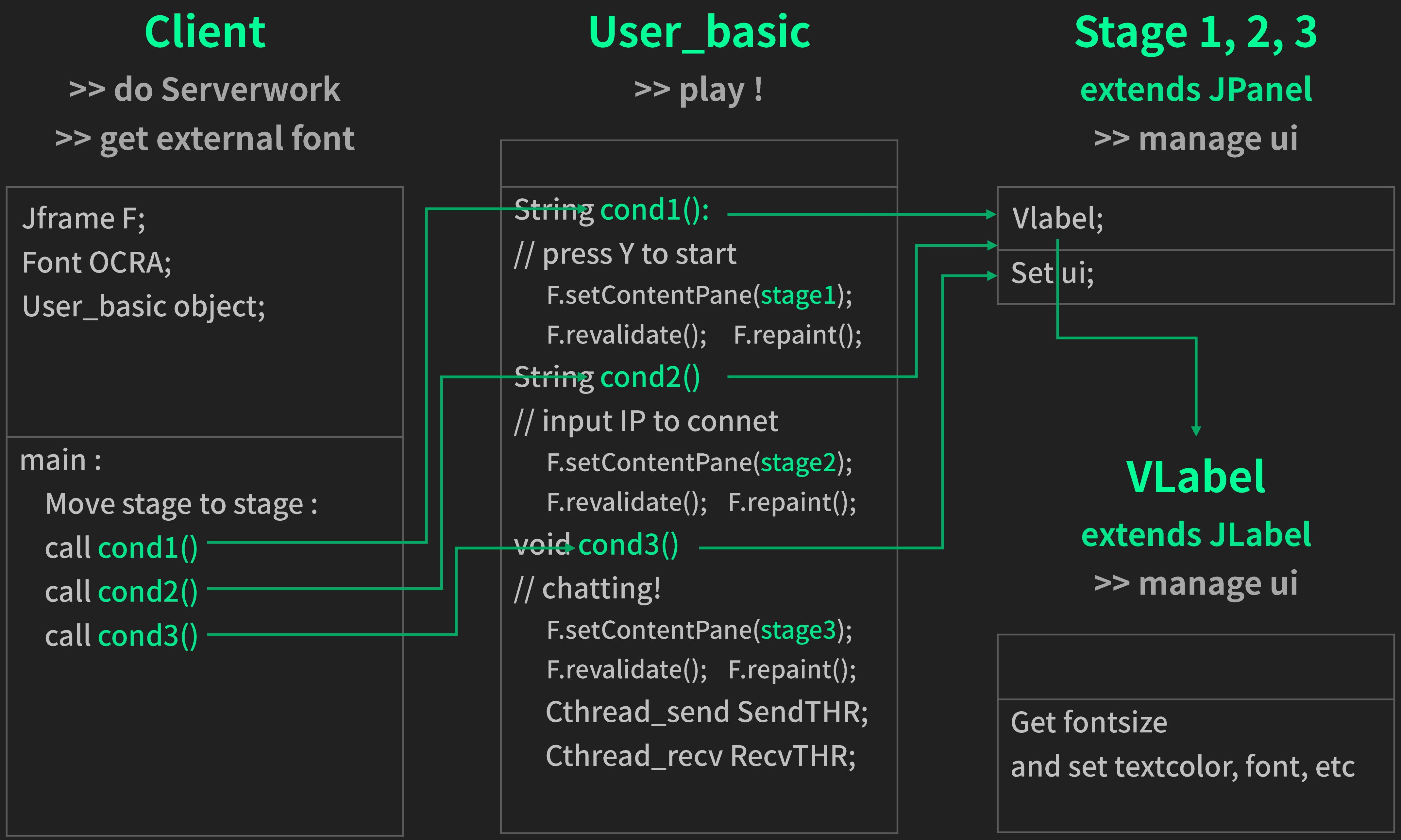
VLabel

extends JLabel

>> manage ui

Get fontsize

and set textcolor, font, etc



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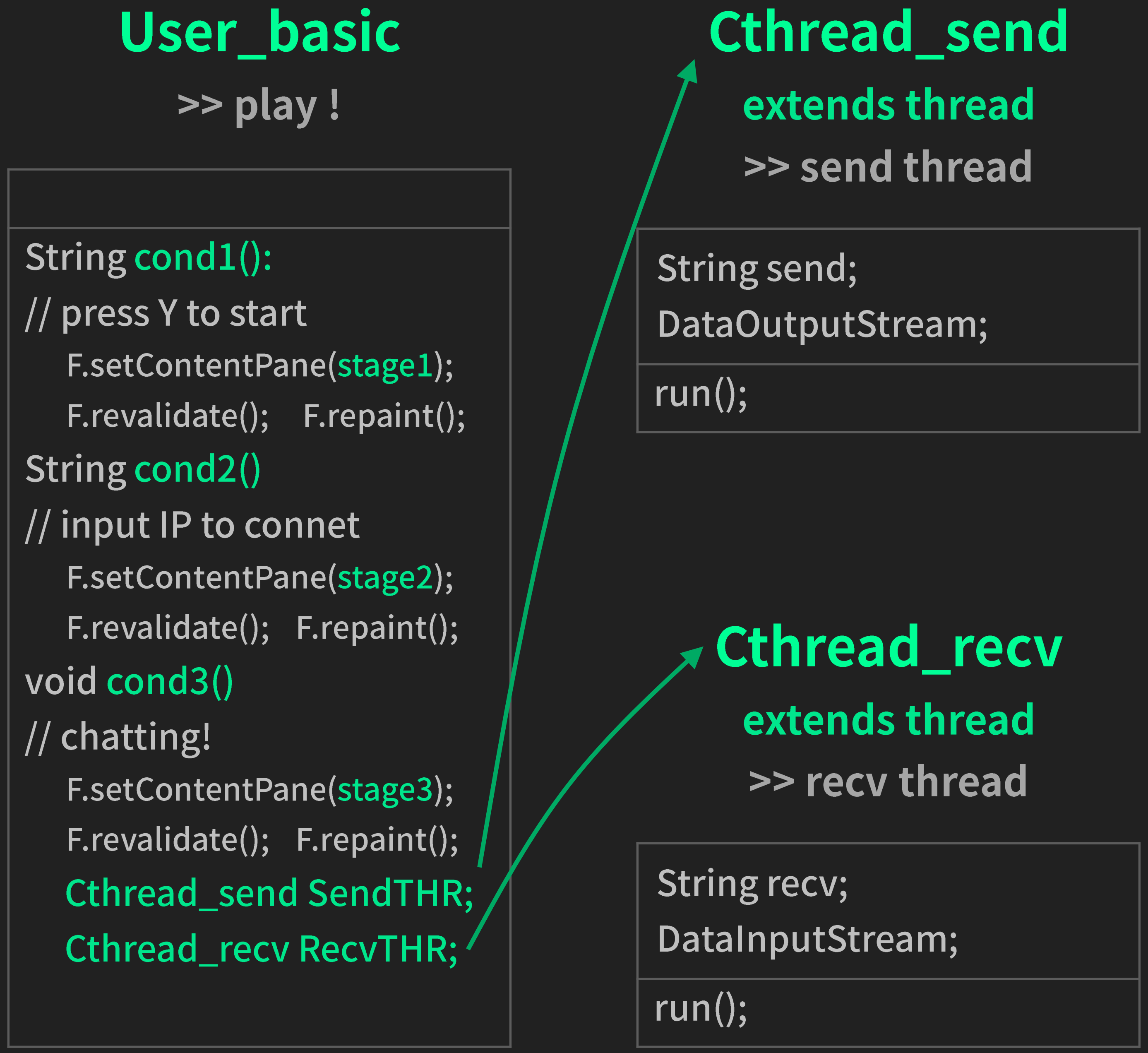

User_basic

>> play !

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String cond1():
// press Y to start
    F.setContentPane(stage1);
    F.revalidate();    F.repaint();
String cond2()
// input IP to connet
    F.setContentPane(stage2);
    F.revalidate();   F.repaint();
void cond3()
// chatting!
    F.setContentPane(stage3);
    F.revalidate();   F.repaint();
    Cthread_send SendTHR;
    Cthread_recv RecvTHR;
```

Cthread_send

extends thread

>> send thread

```
String send;
DataOutputStream;
run();
```

Cthread_recv

extends thread

>> recv thread

```
String recv;
DataInputStream;
run();
```

Client

```
public class Client{
    public static void main (String[] args){

        .. .. ..
        // COND1 : get "Y"
        print(" >> COND1");
        String userMode = user.cond1();
        print(" : get userMode : " + userMode);

        // COND2 : get appropriate IP
        print(" >> COND2");
        String IP = user.cond2();
        print(" : get IP : " + IP);

        // COND3 : start to chatting
        print(" >> COND3");
        user.cond3();

    }
}
```

User_basic

```
public class User_basic {
    .. .. ..
    // COND1 : get "Y"
    public String cond1() { .. .. ..
        stage1 S1 = new stage1();
        F.setContentPane(S1);
        F.setVisible(true);
        F.setDefaultCloseOperation(
            JFrame.EXIT_ON_CLOSE);
    .. .. ..
    // COND2 : get appropriate IP
    public String cond2(){ .. .. ..
        stage2 S2 = new stage2();
        F.setContentPane(S2);
        F.revalidate();
        F.repaint();
    .. .. ..
    // COND3 : start chatting
    public void cond3(){ .. .. ..
        stage3 S3 = new stage3();
        F.setContentPane(S3);
        F.revalidate();
        F.repaint();
        .. .. ..
        Cthread_send SendTHR =
            new Cthread_send(S3, outToServ);
        Cthread_recv RecvTHR =
            new Cthread_recv(S3, inFromServ, F);
    }
}
```

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Thank you!

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