



# Multithreaded Chat Room

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**Class:** *INTERNET TECHNOLOGY F6 Su16*

Chat Room is a desktop application that allows multiple clients communicating through TCP/IP network connections. It contains of a server and clients. Each client has a different color code. No two clients can have the same name.

- Initially all messages entered by any client are public.
- Any client can have a private conversation with one or more other active users.
- A private conversation is initiated one active client at a time.
- An active client can leave any time.
- An active client is the target of private communication => tell originator of departure.
- Private communication from Client A to Client B does not imply private communication from Client B to Client A.
- Private communication does NOT get logged.
- Private communication is terminated by the same client that initiated private communication.
- End of all private communication from Client A returns Client A to public communication.



## Technologies

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- JAVA Programming Language
- TCP/IP
- Mutex/Semaphore
- Socket/IO



## Usage

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```
// The default port number.  
int portNumber = 8888;  
if (args.length < 1)  
{
```

```
        System.out.println("Usage: java Server <portNumber>\n"
            + "Now using port number=" + portNumber);
    }
    else
    {
        portNumber = Integer.valueOf(args[0]).intValue();
    }
}
```

## Application Setup

- The application Runs on the local host by default.
- 8888 is the default port.
- Any customization must be done in the source code
- `maxClientsCount = 20;` by default.
- You may change the load on the server by changing `maxClientsCount` value.

## Team Members

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- Mina Gadallah @[monmon-2007](#)

## To-Do

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**\*\* feedback to be provided by the TA\*\***