 Name:Mohammad Umaid Moulali Gudmithe
Class: SE A
Roll no CO2047
Subject: OOP&CG

```java
public class SimpleChat {
    public static void main(String[] args) throws Exception {
        ChatUser u1 = new ChatUser("Alice", new String[]{"Hi", "How Are
You?", "Bye!"});
        ChatUser u2 = new ChatUser("Bob", new String[]{"Hello Alice", "I
am Fine!", "OK See you soon Bye!"});

        u1.start();
        u2.start();

        System.out.println("Alice alive? " + u1.isAlive());

        Thread.sleep(1000);
        u2.pauseChat();
        System.out.println("Bob paused...");

        Thread.sleep(1000);
        u2.resumeChat();
        System.out.println("Bob resumed...");

        Thread.sleep(1000);
        u1.stopChat();
        System.out.println("Alice stopped...");

        u1.join();
        u2.join();

        System.out.println("Alice alive after join? " + u1.isAlive());
        System.out.println("Chat ended.");
    }
}

class ChatUser extends Thread {
    private String[] messages;
    private volatile boolean running = true;
    private volatile boolean paused = false;

    ChatUser(String name, String[] messages) {
        super(name);
        this.messages = messages;
    }

    public void pauseChat() {
        paused = true;
    }


    public synchronized void resumeChat() {
        paused = false;
        notify();
```

```
    }


    public void stopChat() {
        running = false;
    }

    public void run() {
        for (int i = 0; i < messages.length && running; i++) {
            synchronized (this) {
                while (paused) {
                    try {
                        wait();  // thread waits until resumeChat() is
called
                    } catch (InterruptedException e) {
                        e.printStackTrace();
                    }
                }
            }

            System.out.println(getName() + " says: " + messages[i]);

            try {
                Thread.sleep(1000); // delay between messages
            } catch (InterruptedException e) {
                e.printStackTrace();
            }
        }
    }
}
```

```
Alice alive? true
Alice says: Hi
Bob says: Hello Alice
Bob paused...
Alice says: How Are You?
Bob resumed...
Bob says: I am Fine!
Alice says: Bye!
Alice stopped...
Bob says: OK See you soon Bye!
Alice alive after join? false
Chat ended.


...Program finished with exit code 0
Press ENTER to exit console.
```