

EXPERIMENT NO 3

NAME-PINKY PAMECHA

SAP ID-60004220056

ROLL NO-C114

CODE:

```
class BusReservation {
    private int totalSeatsAvailable = 2;

    public void bookTicket(String name, int numberOfSeats) {
        if (totalSeatsAvailable >= numberOfSeats) {
            System.out.println("Hi, " + name + " : " + numberOfSeats + " Seats booked successfully.");
            totalSeatsAvailable = totalSeatsAvailable - numberOfSeats;
        } else {
            System.out.println("Hi, " + name + " : Seats Not Available.");
        }
    }
}

class TicketBookingThread extends Thread {
    private BusReservation br;
    private String passengerName;
    private int numberOfSeats;

    public TicketBookingThread(BusReservation br, String passengerName, int numberOfSeats) {
        this.br = br;
        this.passengerName = passengerName;
        this.numberOfSeats = numberOfSeats;
    }

    public void run() {
        br.bookTicket(passengerName, numberOfSeats);
    }
}

public class BusTicketReservationSystem {
    public static void main(String[] args) {
        System.out.println("WELCOME TO ABC BUS RESERVATION!");
        System.out.println("Name-Pinky Pamecha");
        System.out.println("Sapid-60004220056");
        System.out.println("Roll no-C114");
        BusReservation br = new BusReservation();
        TicketBookingThread t1 = new TicketBookingThread(br, "pinky", 2);
        TicketBookingThread t2 = new TicketBookingThread(br, "meet", 2);

        t1.start();
        t2.start();
    }
}
```

OUTPUT:

External Libraries	Upload Files	Input	Output	 JDroid
<pre>WELCOME TO ABC BUS RESERVATION! Name-Pinky Pamecha Sapid-60004220056 Roll no-C114 Hi, meet : 2 Seats booked successfully. Hi, pinky : 2 Seats booked successfully.</pre>				
CPU Time: 0.08 sec(s) Memory: 39888 kilobyte(s) Compiled and & executed in 1.308 sec(s)				

SYNCHRONIZED CODE:

```
class BusReservation {
    private int totalSeatsAvailable = 2;

    public synchronized void bookTicket(String name, int numberOfSeats) {
        if (totalSeatsAvailable >= numberOfSeats) {
            System.out.println("Hi, " + name + " : " + numberOfSeats + " Seats booked successfully.");
            totalSeatsAvailable = totalSeatsAvailable - numberOfSeats;
        } else {
            System.out.println("Hi, " + name + " : Seats Not Available.");
        }
    }
}

class TicketBookingThread extends Thread {
    private BusReservation br;
    private String passengerName;
    private int numberOfSeats;

    public TicketBookingThread(BusReservation br, String passengerName, int numberOfSeats) {
        this.br = br;
        this.passengerName = passengerName;
        this.numberOfSeats = numberOfSeats;
    }



    public void run() {
        br.bookTicket(passengerName, numberOfSeats);
    }
}

public class BusTicketReservationSystem {
    public static void main(String[] args) {
        System.out.println("WELCOME TO ABC BUS RESERVATION!");
        System.out.println("Name-Pinky Pamecha");
    }
}
```

```
System.out.println("Sapid-60004220056");
System.out.println("Roll no-C114");
BusReservation br = new BusReservation();
TicketBookingThread t1 = new TicketBookingThread(br, "pinky", 2);
TicketBookingThread t2 = new TicketBookingThread(br, "meet", 2);

t1.start();
t2.start();
}
}
```

OUTPUT:

External Libraries	Upload Files	Input	Output	 JDroid
<pre>WELCOME TO ABC BUS RESERVATION! Name-Pinky Pamecha Sapid-60004220056 Roll no-C114 Hi, pinky : 2 Seats booked successfully. Hi, meet : Seats Not Available.</pre>				
<p> CPU Time: 0.08 sec(s) Memory: 41192 kilobyte(s) Compiled and & executed in 1.709 sec(s)</p>				