public class SleepingBarber {

public static void main(String[])

{

class Barber extends SleepingBarber {

int times;

Barber(int times) {

this.times=times;

}

public void run(){

while(times>)){

//R\_B1

/\*\*\*B1C2 B1 enter\*\*\*/

System.out.println("barber wait a customer");

/\*\*\*B1C2 B1 exit\*\*\*/

System.out.println("barber has a customer");

//R\_B2

System.out.println("barber starts to cut the customers hair");

//R\_B3

/\*\*\*B3C4 B3 enter\*\*\*/

System.out.println("barber finished the haircut");

/\*\*\*B3C4 B3 exit\*\*\*/

System.out.println("barber informed the haircut");

//R\_B4

/\*\*\*B4C5 B4 enter\*\*\*/

System.out.println("barber wait the customer to leave");

/\*\*\*B4C5 B4 exit\*\*\*/

System.out.println("barber:the customer to leave");

}

}

}

class Customer extends Thread{

private int id;

Customer (int id) {

this.id =id;

}

public void run(){

//R\_C1

/\*\*\*C1C3 C1 enter \*\*\*/

System.out.println("Customer "+id+" checks the waiting room");

if(barberShop.numCustomers==BarberShop.numChairs){

/\*\*\*C1C3 C1 exit\*\*\*/

System.out.println("Customer "+id+"finds out the waiting room is full and leave");

return;

}

else{

/\*\*\*C1C3 C1 exit\*\*\*/

BarberShop.numCustomer++;

System.out.println("Customer "+id+" enters the waiting room");

//R\_c2

/\*B1C2 C2 enter\*/

System.out.println("Customer "+id+" wait the barber become free");

/\*B1C2 C2 exit\*/

System.out.println("Customer "+id+"barber is free");

//R3

/\*C1C3 C3 enter\*/

BarberShop.numCustomer--;

System.out.println("Customer "+id+"met the barber");

/\*C1C3 C3 exit\*/

System.out.println("Customer "+id+" leaves the waiting room");

//R4

/\*B3B4 C4 enter\*/

System.out.println("Customer "+id+" wait hair cut is done");

/\*B3B4 C4 exit\*/

System.out.println("Customer "+id+"hair cut is done");

//R\_C5

/\*B4C5 C5 enter \*/

System.out.println("Customer "+id+" starts to leave");

/\*B4C5 C5 exit\*/

System.out.println("Customer "+id+" left");

}

}

}

public class BarberShop{

public static int numCustomer=0;

public static int numChair=5;

public static void main(String[] arg){

Barber barber=new Barber(3);

Customer customer1=new Customer(1);

Customer customer2=new Customer(2);

Customer customer3=new Customer(3);

barber.start();

customer1.start();

customer2.start();

customer3.start();

}

}