**public** **class** Customer **implements** Runnable{

Thread t;

Customer(){

t=**new** Thread(**this**,"check-out");

t.start();

}

@Override

**public** **void** run() {

// **TODO** Auto-generated method stub

}

**public** **void** checkOut() **throws** InterruptedException

{//Thread.sleep(500);

System.***out***.println("Room Service is clear - You can proceed with checkout process");

}

}

**public** **class** Room **extends** Thread{

Customer cc;

Room(Customer c)

{

**this**.cc=c;

start();

}

**public** **void** run()

{

System.***out***.println("Room Service Initiated for the room ");

System.***out***.println("Room checking is going on");

/\*try {

Thread.sleep(1000);

//System.out.println("room service is done");

} catch (InterruptedException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}\*/

**try** {

cc.checkOut();

} **catch** (InterruptedException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

}

}

**import** java.util.Date;

**import** java.text.ParseException;

**import** java.text.SimpleDateFormat;

**import** java.util.Scanner;

**public** **class** Main {

**static** String *cindate*;

**static** String *coutdate*;

**static** String *choice*;

**static** String *room*;

**static** **long** *totalBill*;

**static** **int** *days*;

**static** **long** *bill*;

**public** **static** **void** main(String args[]) **throws** Exception

{

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Do you want to check out yes/no");

*choice*=sc.nextLine();

**if**(*choice*.equals("yes"))

{

System.***out***.println("Enter the check-in date");

*cindate*=sc.nextLine();

System.***out***.println("Enter the check-out date");

*coutdate*=sc.nextLine();

System.***out***.println("Enter the Room Type:\nNormal\nDeluxe\nSuper Deluxe");

*room*=sc.nextLine();

**if**(*room*.equals("Normal"))

*bill*=1500;

**else** **if**(*room*.equals("Deluxe"))

*bill*=2500;

**else** **if**(*room*.equals("Super Deluxe"))

*bill*=3500;

**else**

*room*=sc.nextLine();

*days*=*dateDiff*(*cindate*,*coutdate*);

*totalBill*=*bill*\**days*;

*display*();

}

**else**

System.***out***.println("Thank you for continuing your stay");

}

**static** **public** **int** dateDiff(String date1,String date2) {

SimpleDateFormat format = **new** SimpleDateFormat("dd/MM/yyyy");

Date d1=**null**;

Date d2=**null**;

**long** diff;

**try** {

d1 = (Date) format.parse(date1);

d2 = (Date) format.parse(date2);

} **catch** (ParseException e) {

e.printStackTrace();

}

diff=(**long**)(d2.getTime() - d1.getTime());

**int** day=(**int**) (diff/(1000\*60\*60\*24)%7);

**return** day;

}

**static** **void** display() **throws** Exception

{

Customer cust=**new** Customer();

Room rumser=**new** Room(cust);

Thread.*sleep*(1000);

System.***out***.println("The total rent for "+*days*+" Days is "+*totalBill*);

}

}