

## HOTEL ROOM RESERVATION

A hotel chain operating in Miami wishes to offer room reservation services over the internet. They have three hotels in Miami: Lakewood, Bridgewood and Ridgewood. Each hotel has separate weekday and weekend(Saturday and Sunday) rates. There are special rates for rewards customer as a part of loyalty program. Each hotel has a rating assigned to it.

**Lakewood** with a rating of 3 has weekday rates as 110\$ for regular customer and 80\$ for rewards customer. The weekend rates are 90 for regular customer and 80 for a rewards customer.

**Bridgewood** with a rating of 4 has weekday rates as 160\$ for regular customer and 110\$ for rewards customer. The weekend rates are 60 for regular customer and 50 for a rewards customer.

**Ridgewood** with a rating of 5 has weekday rates as 220\$ for regular customer and 100\$ for rewards customer. The weekend rates are 150 for regular customer and 40 for a rewards customer.

### Can you write a program to help an online customer find the cheapest hotel?

The input to the program will be a range of dates for a regular or rewards customer. The output should be the cheapest available hotel. In case of a tie, the hotel with highest rating should be returned. The additional level of complexity can be introduced by adding blackout dates, may be in part 2 of the problem.

INPUT FORMAT: <customer\_type>: <date1>, <date2>, <date3>, ...

OUTPUT FORMAT: <name\_of\_the\_cheapest\_hotel>

INPUT 1: Regular: 16Mar2009(mon), 17Mar2009(tues), 18Mar2009(wed)

OUTPUT 1: Lakewood

INPUT 2: Regular: 20Mar2009(fri), 21Mar2009(sat), 22Mar2009(sun)

OUTPUT 2: Bridgewood

INPUT 3: Rewards: 26Mar2009(thur), 27Mar2009(fri), 28Mar2009(sat)

OUTPUT 3: Ridgewood