

Coding problem: 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.

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.

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

In-Office Extension:

Each hotel picks black-out dates for rewards customers. Black-out dates are when rewards customer cannot avail the discounted rates, they will be charged regular rates. For example, Bridgewood has picked its black out dates for New Years from 23rd December to 2nd January. Ridgewood has all the entire three months of July, August, September as black-out dates for summer.