

# Flight Ticket Booking

- 本文档需要保密，请勿将文档内容，以及你写的代码，以任何形式发布到网络上。
- You can use **any programming language** to do this homework. For example `Ruby`, `Java`, `Javascript`, `Python`, etc.
  - Write vanilla code. Do not use web application framework. For example `Rails`, `Spring`, `React`, etc.
  - Write your code based on **object-oriented programming**.
  - Write your code with **design**. (Clean, readability, extensible)
  - Code need include *input and output*. (You can use unit test labrary. For example `rspec`, `junit`, etc.)
  - Write **unit tests**. (TDD is preferred).
- Please do not be hostage if you have any questions. Let us know!

## The problem

GD Airline has three return flights from Xi'an to Chengdu everyday. The following is the flight information:

FLIGHT	SCHEDULED	DEPARTURE	ARRIVAL
GD2501	08:00	Xi'an	Chengdu
GD2606	12:25	Xi'an	Chengdu
GD8732	19:30	Xi'an	Chengdu

FLIGHT	SCHEDULED	DEPARTURE	ARRIVAL
GD2502	12:00	Chengdu	Xi'an
GD2607	16:25	Chengdu	Xi'an
GD8733	23:30	Chengdu	Xi'an

The flight price varies depending on when the passenger takes off and whether he/she is a reward customer. See the price information as below:

FLIGHT	WEEKDAYS Regular	WEEKDAYS Reward	WEEKENDS Regular	WEEKENDS Reward
GD2501	¥1100	¥800	¥900	¥500
GD2606	¥1600	¥1100	¥600	¥500
GD8732	¥2200	¥1000	¥1500	¥400
GD2502	¥1700	¥800	¥900	¥800
GD2607	¥1600	¥1100	¥600	¥500
GD8733	¥1600	¥1500	¥1000	¥400

Please help the passenger find the lowest price package, based on passenger type, departure time and return time.

If the prices are the same, choose the flight prior to its take-off time. Any take-off time close to 12:00 PM will be preferred.

## Input/Output format

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INPUT FORMAT

<CUSTOMER\_TYPE>, <DEPARTING\_DATE>, <RETURNING\_DATE>

OUTPUT FORMAT

<DEPARTING\_FLIGHT>

<RETURNING\_FLIGHT>

## Example 1

INPUT:

REWARD, 20160410SUN, 20160420WED

OUTPUT:

GD8732

GD2502

## Example 2

INPUT:

REGULAR, 20160415FRI, 20160418MON

OUTPUT:

GD2501

GD2607

## Notes

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These examples are only used to show the input/output format. They might not be the correct results.