

# The olympic Shuffle.

## Background

Due to budget constraints at the 2056 Olympics Games in Sio de Kaneiro, the Razilian Olympic Games board have called upon your help to save some money. The games will run for 16 days. They have decided to house three olympians to a room, but they must be of the same gender and from the same country. Athletes can arrive and leave the games on different days. For the entire stay of each olympian, their roommates may not change. When all occupants of a room have left the games, the room can be cleaned and used for another group of athletes. However, one day is needed for cleaning before another group checks-in.

## Question

The olympic board has put you in charge of 400 athletes from North America. Your job is to minimize the number of rooms required to accommodate these Olympians.

## Datasets Provided

**Rooms.data** - Olympian dataset with 400 entries and 5 columns as below

athlete id	arrival day	departure day	country	gender
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*E.g.: For row 5, athlete 5 arrives on day 1, leaves on day 15, is Canadian and female.*

## Solution Requirement

An athlete/bed/room/day assignment in a space separated **.data** or **.txt** or **.csv** file. A zero indicates a vacant bed on that day.

room number	bed number	day 1	day 2, ..., day 15	day 16
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Room numbers and bed numbers must be in order from smallest to largest.

## Sample Submission Format

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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 2 0 2 2 2 2 2 2 2 2 2 2 0 0 0 0
1 3 3 3 3 3 3 3 3 3 3 3 3 3 3 0... etc.
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