



Assignment Project Exam Help

Integer Programming

<https://powcoder.com>

Time Share Exchange Problem

Add WeChat powcoder

CIS-418

Time Share Exchange problem



ORLANDO



SAN DIEGO



HORSESHOE

Assignment Project Exam Help

<https://powcoder.com>

Add WeChat powcoder

Time Share Exchange problem

- **Objective:**
 - Maximize the number of exchanges
- **Decision variables:**
 - To assign slot x to customer y , 15 customers \times 12 combinations
- **Constraints:**
 - Binary Variables (if it is too hard to fit the solver engine, you can set them as non-negative).
 - A customer can only receive what is in her allowance (based on allowance rule)
 - A customer will not receive a combination that wasn't her first or second choice
 - A customer can receive no more than one combination
 - A customer can receive a particular resort/season combination only if someone else gave the same combination up.

Different business rules

Exchange rules:

- Only same color exchanges are allowed.
- Same color and downward exchanges are allowed. Recall the rank is Red > White > Blue.
- All exchanges are allowed.

Assignment Project Exam Help

<https://powcoder.com>

Customers' satisfaction:

- First choice = Second choice
- First choice = $a \times$ Second choice, $a > 1$. We capture customers' satisfaction in objective function.

Add WeChat powcoder

Go to excel file “Time Share Homework” and solve the problem

Different business rules

Exchange rule:

- Only same color exchanges are allowed.
- Same color and downward exchanges are allowed. Recall the rank is Red > White > Blue.

- All exchanges are allowed.

<https://powcoder.com>

Customers' satisfaction:

- First choice = Second choice

- First choice = $a \times$ Second choice, $a > 1$. We capture customers' satisfaction in objective function.

Go to excel file “Time Share Homework” and solve the problem