

Rice Apps

Design Question

Instructions

Thanks for your interest in Rice Apps! Please try out the design question below.

- pick any language to write your solution
- complete the question in one sitting
- let us know how long you spent on the problem

"Good artists borrow, great artists steal!"

Feel free to use resources and libraries online. Just cite your sources: Clearly indicate which part is your contribution (at both algorithm and implementation levels).

You are encouraged to justify your solution and document your design decisions and choices.

Email your solution and resume to riceapps2013@gmail.com

Blackjack

Your task is to build a decision engine for blackjack. Write a program that takes as input a game state in JSON form and outputs the result of that game state in JSON.

It is up to you to design an output format that conveys the right information. Remember, this is an open-ended question and you are free to design your solution in a way that makes sense to you. You don't have to use the input specifications defined below, you can define your own input. Creativity and independent thought is encouraged.

Example

For example, the result of the game state on the right is:

dealer loses; Joe Armijo wins; Tess Seip wins; Patsy Lemaster loses;
the game is over

H: Heart, S: Spade, D: Diamond, C: Club

last_move could represent the dealer or a player name. It tells you the last person who made a move.

Note:

Game states can be mid-game as well, meaning the game hasn't ended yet. An example outcome would be (not related to the example on the right):

Dealer is still playing; Mike is still playing; Andy loses; Next player is Mike

Example Input:

```
{
  "dealer": {
    "cards": ["2S", "8H", "2D", "KC"]
  },
  "players": [
    {
      "name": "Joe Armijo",
      "cards": ["9C", "6H"]
    }, {
      "name": "Tess Seip",
      "cards": ["AS", "7S"]
    }, {
      "name": "Patsy Lemaster",
      "cards": ["8C", "7D", "JH"]
    }
  ],
  "last_move": "dealer"
}
```