

2002 Sun Microsystems and TopCoder Collegiate Challenge – Problem Analysis

Omaha:

Omaha was undoubtedly one of the most code-heavy problems I have ever written. Originally written so that the coder had to return a `String[]` of the five cards representing the best hand, it was simplified to only require the coder to return the type of hand that was the best. This was done in order to eliminate many border cases, but the problem was still hard, nonetheless. The solution I used was a self-contained class representing the hand, which implemented the java interface `Comparable`. The class took 5 cards as arguments for the constructor, and figured out internally whether those cards represented a three of a kind, straight, full house, etc. Then it was a simple task for the comparator function to decide which hand was higher (there is some residual code left from the original form of the problem.) The `bestHand` method then tried the $6 * 10 = 60$ combinations of held/communal cards, kept the best hand seen, and ultimately translated it into the appropriate return string.).