

Poker Best Hand

A standard deck of playing cards has four suits - spades, hearts, diamonds, and clubs - and thirteen cards in each suit. Two is the lowest rank, followed by other integers up to ten; then the jack, queen, king, and ace.

It's convenient to represent these cards as suit/rank pairs, such as H5 or DQ: the heart five and diamond queen respectively. For purposes of determining rank, we will define the cards to be valued from 0 (the two) to 12 (the ace) [Few more examples, 10 is Q and 5 is 3]. A ten will always be represented with the single character "T", rather than the two characters "10".

Write a function that takes five cards as input and returns the best poker hand that can be made with five cards. The hand rankings are listed below for your convenience.

Four of a kind: Four of the cards have the same rank

Full House: Three cards of one rank, the other two of another rank

Flush: All cards in the same suit

Straight: All cards in sequence (aces can be high or low, but not both at once)

Three of a kind: Three of the cards have the same rank

Pair: Two cards have the same rank

High card: None of the above conditions are met

A function should return the best poker hand as a string, for example "four-of-a-kind", "full-house", "flush", "straight", "three-of-a-kind", "pair", "high-card"

Example 1: Input ["HA" "H2" "S3" "D4" "C5"], Output: "straight"

Example 2: Input ["HA" "HK" "H2" "H4" "HT"], Output: "flush"

Example 3: Input ["SA" "HA" "CA" "C2" "C5"], Output: "three-of-a-kind"

Example 4: Input ["S2" "D5" "C7" "ST" "HA"], Output: "high-card"

Expectations:

1. You are required to help create the software that works according to the sample inputs applied and generates output as shown in the Input-Output section shown for the problem.
2. You should demonstrate the working software by building a console application or writing test program that exercises the sample inputs, for this purpose you may use junit or any other testing framework.
3. Maturity of your solution will be judged on your object oriented analysis and design skills. Your coding skills will also be judged.
4. Please note that the problems below do not require any relational database or knowledge of underlying OS or Windowing platform.
5. There can be future stories which can be asked to play later.