

a poker hand. Each card in the hand will have both a *suit* (clubs, diamonds, hearts, or spades) and a *rank* (two, three, four, five, six, seven, eight, nine, ten, jack, queen, king, or ace). We won't allow the use of jokers, and we'll assume that aces are high. The program will read a hand of five cards, then classify the hand into one of the following categories (listed in order from best to worst):

- straight flush (both a straight and a flush)
- four-of-a-kind (four cards of the same rank)
- full house (a three-of-a-kind and a pair)
- flush (five cards of the same suit)
- straight (five cards with consecutive ranks)
- three-of-a-kind (three cards of the same rank)
- two pairs
- pair (two cards of the same rank)
- high card (any other hand)

If a hand falls into two or more categories, the program will choose the best one.

For input purposes, we'll abbreviate ranks and suits as follows (letters may be either upper- or lower-case):

Ranks: 2 3 4 5 6 7 8 9 t j q k a
Suits: c d h s

If the user enters an illegal card or tries to enter the same card twice, the program will ignore the card, issue an error message, and then request another card. Entering the number 0 instead of a card will cause the program to terminate.

A session with the program will have the following appearance:

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Enter a card: 2s
Enter a card: 5s
Enter a card: 4s
Enter a card: 3s
Enter a card: 6s
Straight flush
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Enter a card: 8c
Enter a card: as
Enter a card: 8c
Duplicate card; ignored.
Enter a card: 7c
Enter a card: ad
Enter a card: 3h
Pair
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Enter a card: 6s
Enter a card: d2
Bad card; ignored.
Enter a card: 2d
Enter a card: 9c
Enter a card: 4h
Enter a card: ts
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