

## Homework 3 - Due Friday, Feb. 13

**Blackjack.C:** Write a program to allow the user to play one hand of blackjack, with the computer as dealer. The program should “deal” two cards to the player and two to the dealer. One of the dealer’s cards is displayed.

A hand’s total is the sum of the values of the cards, except that aces may count as 1 or 11 and face cards (jack, queen, king) all count as 10.

If the player’s total is 21, they win immediately. Otherwise, they may “hit” - get another card, or “stay” with what they have. The player can continue to hit until they choose to stay, or until their total exceeds 21 at which point they bust (lose immediately).

Assuming the player has chosen to stay with a value of 21 or less, the dealer then needs to play automatically, choosing to hit on any total of 16 or less, and stay with any total of 17 or more. (You can program it to hit on soft 17 if you’re feeling ambitious and know what that means). If the dealer’s total goes over 21, the dealer busts and the player wins immediately. If both dealer and player have stopped without busting, the winner is whoever (dealer or player) has the higher total. Ties are also possible.

You can (and should) use the Cards module from class or the book. There is a working version in `~bryan/cs220/bin/Blackjack`

**ApptBook.C:** Revise your appointment book program so that appointments are sorted by time and date. Use overloaded comparison operators.