Assignment #2: **Due date: 18 November, 2017**
Fundamentals of Programming **Total points 20**

Blackjack

Write a program Blackjack.c that allows a human user to play a simplified version of Blackjack against a computer opponent.

The simplified blackjack rules are as follows:

- Consider "cards" will have values from 2-11, and all values are equally likely (that is, unlike a real blackjack game, there's no greater chance of drawing a card with value 10).
- Draw two cards for the player and display them.
- Draw two cards for the "dealer" and display one of them, keeping the other one hidden.
- Allow the player to "hit" as many times as he would like.
- If the player "busts" (gets a total over 21), the dealer automatically wins.
- Allow the dealer to hit as many times as he would like. Dealer should probably hit on sixteen or lower.
- If the dealer busts, the player automatically wins.
- Assuming no one has busted, the player with the highest total wins. Dealer wins all ties.

Sample Run!

```
Welcome to simple blackjack program!
You get a 6 and a 5.
Your total is 11.

The dealer has a 7 showing, and a hidden card.
His total is hidden, too.

Would you like to "hit" or "stay"? hit
You drew a 8.
Your total is 19.

Would you like to "hit" or "stay"? stay

Okay, dealer's turn.
His hidden card was a 3.
His total was 10.

Dealer chooses to hit.
He draws a 7.
His total is 17.

Dealer stays.

Dealer total is 17.
Your total is 19.

YOU WIN!
```

Hand-in

The turned-in file should be a COMMENTED source file that plays a single hand of the card game. When done, submit the file named Assignment_2_FCP_BSCS6_<your Reg. No. XXX here; without angle brackets>.c to LMS.

Programs will be graded on the following criteria:

1. **Program Specifications / Correctness.** does it compile? Are there obvious errors? Are there subtle errors? (25%)
2. **Documentation.** Is your program consistently indented in a manner that reflects the structure of your code? Is it easy to read? Are there blank lines which break up the major sections of your code? (15%)
3. **Efficieny.** Is your program efficiently organized, or is there a lot of duplicated code? Does it look well-written, or barely finished? (5%)
4. **Assignment Specifications.** Does your program fulfill the basic requirements? Is it done? And what else does it do? (15%)
5. **In time.** (10%)
6. **Plagiarism.** (30%)

Honor code

The student should agree to the terms below; any infringements will result in minimum marks.

- will not cheat on project
- will not share solutions to the project; and
- will notify the instructor immediately if he or she becomes aware of any other group cheating

References

1. Blackjack