**CSc 102 Project Proposal Guidelines**

The proposal (1–2 pages) should include the following:

1. A title for the proposed card game.   
   **Example**: *Hi-Lo* card game with trump cards
2. “Background and Motivation”, where you state its rules, give a brief (half page) overview of the history of the game, and the motivation for implementing a specific version of it.   
   **Example**: *Hi-Lo* is a simple card game that is played with a full deck of 52 playing cards, without Jokers (Christopher, 2019). A single player plays against the dealer (can be the computer). The player makes his/her wager, and the dealer is asked to deal. After receiving a card, the player has to say if the following card will be higher or lower in value. If the player’s prediction is correct, he/she wins. In the case of multiple players, the points/earnings are split between the players that correctly guessed the card.  
     
   One variation of this game also gives a chance for the dealer (casino) to win (Marquez, 1994). This version comprises the steps of: providing a standard playing deck of 52 cards, adding at least one additional playing card having a value of eight to the deck, beginning a hand of play for a game, shuffling the deck, each player makes a prediction as to whether a dealt playing card *n* will be a *Hi* or *Lo* card, a dealer deals the card *n*, and if the card *n* is an eight of any suit, all the players lose the game and the game is finished.   
     
   This variation will mostly be adopted in the proposed game, but instead of introducing an additional eight card, the two Jokers will be used for that same purpose. Furthermore, up to four players can play at the same time, and if any of those players pick up a Joker, the dealer wins. The rest of the rules remain the same.
3. A clear “Problem Statement” that defines the problem you intend to solve; that is the work that you plan to do for this project.

* Define the complexity of the card game.
* Do not describe the symptoms of the problem here.
* Do not describe a proposed solution here.

**Example:** The aim of this version of *Hi-Lo* is to have the highest card to be dealt will be higher or lower than the one that is currently on the table. This game has a low complexity, but features will be added in an attempt to increase its complexity, attractiveness and depth for casino use.

1. A clear “Approach” that describes how you will go about solving this problem in the form of milestones.  
   **Example**: This project aims to implement a card game in Java with the following milestones: The first is to code a data structure (perhaps an array) that can contain a standard deck of 52 cards. Up to four players can play this game at a time including computer player(s). Therefore, either a human or computer player can do the guessing and the program will keep track of the states (with additional data structures). A scoreboard can hence be implemented in an effort to increase the fun factor of this game. An easy to use GUI will be implemented to improve the attractiveness of this game, without hampering players. Finally, this work will be presented for assessment in the form of a **GitHub** code and **Project Document**, which will include the revision and extension of this proposal. The extensions will include a walkthrough of the steps through the **SDLC** that our group followed, and a **Visual Guide** that shows the game in action (almost like a demo). One way to do this is in the form of ‘storyboards’ with an explanation per frame, that at least shows the start of the game, playing example of the game, and end of the game.
2. A predicted “Timeline” consisting of the above milestones with dates. Research how to represent this graphically as a Gantt chart or in another easy to read way such as a table.  
   **Example**: research this
3. Include a list of at least three references at the end of your proposal and cite all of them at the correct place in the proposal.  
   **Example:**

# References

Christopher, T. (2019, August 22). *High low rules explained*. Retrieved from BESTONLINECASINO: https://www.bestonlinecasino.com/games/high-low/

Marquez, R. L. (1994). *Method of playing hi-hi-lo poker.* US: Google Patents.