**13016209: Object-oriented Concepts and Programming**

**Second Semester, 2019**

# Project assignment - Guideline

1. Project description and requirements

|  |
| --- |
| **Project description:**  Mus is a card game originating from Basque country, which includes Spain and Southern France. Due to the nature of its geographical origin, it is widely played in Spain and France. The game’s objective is like that of Poker– drawing cards and betting on the best hand- the game is generally not played for money. The oldest known reference to the game was in 1795, when it was quoted in a trilingual dictionary (Basque-Spanish-Latin) by Manuel Larramendi, a philologist.  OBJECTIVE OF MUS: Reach 40 points with your partner first!  NUMBER OF PLAYERS: 4 players (2 partnerships)  NUMBER OF CARDS: 40 card Spanish deck (from 1 to 12 without 8 and 9)  VALUES OF CARDS: 12, 11 and 10 : 10 points, the other card are equals to their value (1 : 1 point, 2 : 2 points, …)  Players gain points by having the best hand in each of the categories: Grand (high), Petit (low), Joko (game), and Pareak (pair). Players increase points gained by betting on a category. The betting on these categories follows a strict order, and only after the four rounds is the showdown. At showdown, the hands are revealed, and points determined.  COMPARING HANDS  GRAND (HIGH)  The player with the highest-ranking cards wins Grand. The hand which has the higher ranking first card (if cards are arranged in descending order) wins. If that ties, then compare the second highest card, and so on. Review the card rankings in any possible disputes. (similar to alphabetic order but with number)  PETIT (LOW)  The player with the lowest ranking hand wins Petit. Cards should be arranged in ascending order, with the lowest first card as the winner. Apply the same mechanism for ties as described under Grande.  If no players bet on Chica, the team with the best Chica wins a single point.  PAREAK (PAIR)  Pareak is a collection of 2+ cards of equal rank. There are three different kinds, mentioned below in ascending order:   * Par Simple. 2 cards of equal rank + 2 cards of different rank. The highest-ranking pair wins. If pairs are equal, the earliest player to play it wins. The non-paired cards are irrelevant. * Med. 3 cards of equal rank + 1 card of different rank. The higher ranking three card set wins. * Dobles. Two pairs. For example, 12-12-4-4. A four of a kind (four cards of equal rank) is not significant, it counts as two equivalent pairs.   If players do not bet on pares, players just score their hand’s in the following way:  Par Simple: 1 stone  Med: 2 stones  Dobles: 3 stones  Only the winner scores for Pares, their opponent scores nothing for any of their Pares.  JOKO (GAME)  For Joko, consider the card point values mentioned above  Score the cards you have in hand. Achieving Joko means the cards you have in hand are worth (at least) 31 points. That is the best Joko hand, the second best is 32 point. After, the rank in descending order as follows: 40, 37, 36, 35, 34, 33 (the lowest Joko). Points totaling 39 or 38 are impossible. If you have less than 30 points, no Joko! The Mano possessing a true 31 points Joko is considered unbeatable in the general rules.  If players do not bet on Joko, the side with the best score scores for both of their hands: 3 stones for 31 point Joko, 2 points for any other Joko. The opponents score nothing.  However, if neither side has a Joko, players compete for the best Punto. A Punto is a hand which totals 30 points or less. If it is not bet on, the player with the best Punto earns 1 point and the other side nothing.  THE BETTING  There is a round of betting for each category discussed above. The order of the betting follows a strict routine and are each initiated by the guy at the right of the dealer and moves to the right. If all players pass, there is no bet on that category.  VOCABULARY:  Fold (Tira). The betting side wins that category, opponents forfeit that category. Lose 1 stone.  See (Iduki). Bet an equal amount, agree the best hand will win the stones staked.  Raise. Raise the stakes.  All-in(Hordago).  For more rules and information I invite you to check this website for the official rules : <https://www.federation-mus.fr/wp-content/uploads/2019/07/mus_regles_camino.pdf>, it’s in French but you can copy past on a translator.  Or you can check the rules in English here : <https://gamerules.com/rules/mus-card-game/>, this rules are a bit different but the purpose it’s the same.  Don’t worry the rules seems difficult but it’s not, it’s a game very easy to play, you just need few games to get it.  I send a flowchart to summary    (Note: figures, flowcharts, diagrams may be used to describe the project) |
| **Project requirements:**    (Describe the problem’s statements or a specific request of the program that will be achieved.) |