CSU Long Beach
# CECS 277
**Object Oriented
Application
Development**

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# Project ArrayLists

## Assignment

- War is a card game for two players.
- A standard deck of 52 cards is dealt so that both players have 26 cards.
- During each round of play (or "battle"), both players play a card from the top of their hand face up.
- The player who plays the card of the higher rank wins both cards and places them at the bottom of his stack of cards.
- If both cards played are of the same rank, then both players play three additional cards face down and then one more card face up (this is called a "war").
- The player who wins the war by playing the higher card wins all ten cards.
- If the ranks are still the same, additional wars are played until one player wins the turn.
- If either player runs out of cards to play, he loses the game.
- You will use only ArrayLists to store the cards in this program. This means cards cannot be stored in arrays.
- Sample output might look like this:

```
player 1 plays Card is 9 of Clubs
player 2 plays Card is Ace of Diamonds
player 2 wins the round
player 1 plays Card is 10 of Diamonds
player 2 plays Card is Ace of Hearts
player 2 wins the round
player 1 plays Card is 7 of Clubs
player 2 plays Card is 6 of Hearts
player 1 wins the round
player 1 plays Card is 9 of Hearts
player 2 plays Card is 9 of Clubs
war
war card for player1 Card is xx
war card for player2 Card is xx
war card for player1 Card is xx
war card for player2 Card is xx
war card for player1 Card is xx
war card for player2 Card is xx
war card for player1 Card is 7 of Clubs
war card for player2 Card is 10 of Diamonds
player 2 wins the war round
player 1 plays Card is 6 of Hearts
player 2 plays Card is Ace of Hearts
player 2 wins the round
game over
player 2 wins the game
```

- Think of a Card as an object with properties (rank, suit, etc.)
- Think of a Deck of Cards as a Collection of Objects
- Think of the remaining objects: Hand, Discard Pile, etc. as a collection of objects
- You may find methods in the Collections class that will help with some of the functionality needed in this project.
- Make sure you document the programs as specified in the grading guidelines.
- You will hand in a printout of the program(s) along with a demo in the lab.

## Grading Criteria
You will be graded on the following components:
- Does the program do what is required
- Is it properly documented

- Is it fully tested
- Is it properly designed


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