

# Analysis

Saturday, March 19, 2011  
1:53 AM

## I) PredPray Class

- a. userFriend
  - i. **Input:** Integers PreyCnt, PredatorCnt, and number of generations
  - ii. **Output:** None
  - iii. **Constraints:** Inputs must be integers
  - iv. **Relationships:** Calls the lotkaVolterraModel method
- b. lotkaVolterraModel
  - i. **Input:** Integers for PreyCnt, PredatorCnt, base generation, and number of generations
  - ii. **Output:** Population levels for each generation
  - iii. **Constraints:** Inputs must be integers
  - iv. **Relationships:** Uses the dPreyCnt and dPredatorMethods
- c. dPreyCnt
  - i. **Input:** Integers for a specific generations PreyCnt and PredCnt
  - ii. **Output:** An integer representing a new generations prey population level
  - iii. **Constraints:** Inputs must be integers
  - iv. **Relationships:** Uses the lotkaVolterraModel's function for change in prey population over time
- d. dPredatorCnt
  - i. **Input:** Integers for a specific generations PreyCnt and PredCnt
  - ii. **Output:** An integer representing a new generations predator population level
  - iii. **Constraints:** Inputs must be integers
  - iv. **Relationships:** Uses the lotkaVolterraModel's function for change in predator population over time