Lab 4 Group 5 Andreas Landgrebe Brian Graham Anton Kotelyanskii Matt Hajduk Requirements

- 1. We will be generating a data generator that will take a list of numbers as input and the output take a list of numbers as input and produce a list the generating by swapping 2 members of the input list as output. However, the customer has requested that he would like a List $L = \{1,2,3,4\}$ to output $L = \{L_1, \ldots, L_6\}$ as
- 2. $L_1 = \{2,1,3,4\}$
- 3. $L_2 = \{3,2,1,4\}$
- 4. $L_3 = \{4,2,3,1\}$
- 5. $L_3 = \{1,3,2,4\}$
- 6. $L_4 = \{1,4,3,2\}$
- 7. $L_6 = \{1,2,4,3\}$

We would suggest would rather want to have the following

- 8. We will be generating a data generator that will take a list of numbers as input and the output will produce a list that is generating by swapping 2 members of the input list. The data generator will go as follows: For List $L = \{1,2,3,4,5,6\}$ the customer wants the data generator to output $L = \{L_1, \ldots, L_6\}$ with
 - (a) $L_1 = \{2,1,3,4\}$
 - (b) $L_2 = \{3, 2, 1, 4\}$
 - (c) $L_3 = \{4,2,3,1\}$
 - (d) $L_4 = \{1,3,2,4\}$
 - (e) $L_5 = \{1,4,3,2\}$
 - (f) $L_6 = \{1,2,4,3\}$