CSCI 220 -- In-Class Exercise 3

Group Members	Contribution (0 to 10) 0 – no contribution, 10 -- most
Nero Li	10
Alpha Gueye	10
Michael Tran	10
Antonio Duran-Ramos	10

It is best to share a screen via Zoom and work together. Your group can pick either C++ or Java, but you might want to do one ADT in C++ and the other ADT in Java.

Name of note taker (responsible to collect information and submit it): Nero Li

Look up either C++ or Java reference and find a class that is closest to our Vector/ArrayList ADT in the book. Map equivalent operations to important operations listed for our Vector/ArrayList ADT. What is one useful operation that you would like to add to this ADT? Clearly indicate whether it is C++ or Java.

ArrayVector ADT in C++ book	**<vector> ADT in C++**
size()	size()
empty()	empty()
at(i)	at(i)
erase(i)	N/A (pop_back() has the cloest function)
insert(i,e)	N/A (push_back(e) has the cloest function)
reserve(N)	reserve(n)

The most useful function that we would want to add to the ADT is erase(i) and insert(i,e) since it helps us change the data for V[i] instead of just changing the data at the back as what STL Vector do.

Look up either C++ or Java reference and find a class that is closest to our List ADT in the book. Map equivalent operations to important operations listed for our List ADT. What is one useful operation that you would like to add to this ADT? Clearly indicate whether it is C++ or Java.

List ADT in C++ book	**<list> ADT in C++**
begin()	front()
end()	back()
insertFront(e)	push_front(e)
insertBack(e)	push_back(e)
insert(p,e)	N/A
eraseFront()	pop_front()
eraseBack()	pop_back()
erase(p)	N/A

The most useful function that we would want to add to the ADT is insert(p,e) and erase(p), which can allow us to change data at the middle of the list instead of just at the beginning or the end.