

COMP 196ABL – Project #7

24 points; preliminary due date - end of lab session you attend on March 11, 2019

Email your Java source file to: [sgs@csun.edu](mailto:sgs@csun.edu)

## Credit Card Number Validation

Textbook, 11<sup>th</sup> edition

Page 243 6.31 (page 241 if using 10<sup>th</sup> edition) with following modifications:

The textbook calls for the credit card number being checked to be stored in a long integer. For this assignment the number will start out in an int array with one digit stored in each array location.

So, for the code skeleton presented in the textbook, replace method parameter references to “long number” with “int[ ] number”. The updated skeleton code with stubs is available in the Box folder for week 6 as CCArray.java

Also, the main will not be reading from the keyboard, at least for now.

We will discuss over several lecture sessions the top-down design and the top-down / bottom-up implementation approaches to the program structure outlined in the textbook for implementing the Luhn algorithm. You are to use the structure outlined by the textbook to parse out the algorithm into smaller components, with the modifications stated above. You should not be directly accessing by subscript the values contained in the int array except at the most primitive (lowest) level of the design.

Videos describing this algorithm are available on YouTube –

<https://www.youtube.com/watch?v=P0OD4LjYcBk>

<https://www.youtube.com/watch?v=PNXXqzU4YnM>

<https://www.youtube.com/watch?v=wsphC8V36iO>

More on credit card numbers –

<https://www.freeformatter.com/credit-card-number-generator-validator.html>

<http://www.dirigodev.com/blog/ecommerce/anatomy-of-a-credit-card-number/>