|  |  |  |  |
| --- | --- | --- | --- |
| Credit Card Number | **AddOdd**  Subroutine | **AddEven**  Subroutine | **Validate**  Subroutine |
| 1115 | First digit: 1  1x2 = 2  Second digit: 1  1x2 = 2  Return sum: 4 | First digit: 1  Second digit: 5  Return sum: 6 | 4+6 = 10  10 % 10 = 0  Returns VALID |
| 7633 | First digit: 7  7x2 = 14  MSB=1 LSB=4  Sum=5  Second digit: 3  3x2 = 6  Return sum: 11 | First digit: 6  Second digit: 3  Return sum: 9 | 11+9 = 20  20 % 10 = 0  Returns VALID |
| 8877 | First digit: 8  8x2 = 16  Sum = 7  Second digit: 7  7x2 = 14  Sum = 5  Return sum: 12 | First digit: 8  Second digit: 7  Return sum: 15 | 12+15 = 27  27 % 10 = 7  Returns INVALID |
| 7781 | First digit: 7  7x2 = 14  Sum = 5  Second digit: 8  8x2 = 16  Sum = 7  Return sum: 12 | First digit: 7  Second digit: 1  Return sum: 8 | 12+8 = 20  20 % 10 = 0  Returns VALID |
| 9803 | First digit: 9  9x2 = 18  Sum = 9  Second digit: 0  Return sum: 9 | First digit: 8  Second digit: 3  Return sum: 11 | 9+11 = 20  20 % 10 = 0  Returns VALID |
| 6502 | First digit: 6  6x2 = 12  Sum: 3  Second digit: 0  Sum: 3 | First digit: 5  Second digit: 2  Return sum: 7 | 3+7 = 10  10 % 10 = 0  Returns VALID |

## Test Plan for CC\_Validation.asm

Date: Aug 4, 2024

Name Aidan Keuning\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student Number 041123875

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Results (**AFTER ALL SIX Credit Card Numbers have been validated):**

VALID = 5 INVALID = 1