

# Assignment 4 report

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## 1. hexadecimal addition:

First, I use a function to convert the input string to decimal representation, in this function I consider the case like converting ('A' ~ 'F') to number (10~15): (input)- 'A'+10.

In the main part of the code, I use a for loop to traverse all the digit I need (lmax). Inside the loop, there are 3 cases, plus both n1 and n2, or just plus either of them when loop exceed the digit ( $i > \text{length of } n1 \text{ or } n2$ ). Lastly print out all process of calculation and print the overflow if the sum exceeds 16 digits.

## 2. Hexadecimal multiplication:

Same as addition, first convert the input string to decimal. Then I use a function including a 'sprintf' to convert decimal back to hexadecimal.

The main part of the code I convert hexadecimal to decimal to do the multiplication and convert back to hexadecimal.

Lastly call all the functions above to print out the calculated result.