

## Mini Project

**Note: You are required to show the output of this exercise to one of the TA at the start of the next lab session (30<sup>th</sup> Oct). This is not graded but we must log that you have completed this exercise.**

Write a C program that reads an integer amount (between 1 – 10,000,000) from the user and converts it into its textual representation in words.

For example,

- If the user enters "11, the program should output "eleven".
- If the user enters "199", the program should output "one hundred ninety nine".
- If the user enters "1234", the program should output "one thousand two hundred thirty four".
- If the user enters "53245, the program should output "fifty three thousand two hundred forty five".
- If the user enters " 1005010, the program should output "one million five thousand ten".

Have a look at this number to word calculator to see what the output should be of your C program:

<https://www.calculatorsoup.com/calculators/conversions/numberstowords.php>

### Requirements:

- Use control flow statements (if-else, switch, loops) where necessary.
- Implement the conversion logic in one or more functions (as necessary).
- You can use arrays and strings to store and manipulate the textual representation of numbers (if needed)
- **Use of pointers is not allowed for this exercise!**

### Hints:

- Break down the integer into groups of three digits (ones, thousands, millions, etc.) and convert each group to words separately.
- Use arrays or switch statements to map digit values to their textual representations.
- Handle special cases for numbers less than 20 (e.g., "eleven," "twelve") and multiples of 10 (e.g., "twenty," "thirty").
- Combine the textual representations of the individual groups to form the complete text.