

## ICS3U – 5.11 Monarch Structures Assignment

### Task:

Write a program to read in and display the following data from a text file:

Harold V	1858 May 13 to 1912 September 8
Richard VI	1884 June 24 to 1936 June 2
Maud III	1920 October 15 to 1954 July 26
Clarence I	1958 August 31 to 1993 December 28

Use the following structure to store your information:

```
struct Date {
    int year;
    char month[14];
    int day;
};

struct Person {
    char name[40];
    char regnal[5];
    Date birth, death;
};
```

You can assume "the regnal name is followed by a [regnal number](#) (ordinal), usually expressed as a [Roman numeral](#) (VI rather than 6), to provide a unique name for that monarch." - Wikipedia.

### Level 3+ requirement:

Using the given structure, display your data using the Allegro graphics package and template provided.

\*\*\*Note that you may not alter the structure.\*\*\*

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### Level 4 requirement:

Complete 3+ requirement. Calculate and print the age at death of each monarch. Use a function.

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Please complete 3+ and 4 requirements before attempting the extension activity.

**Level 4+ extension activity:** Change your program into a database, where you can add and delete monarchs. When data is changed, rewrite your content back to the text file. Create sort features. Consider code efficiency and user experience.

\*\*\*Note: you do not need to complete all of the listed features to obtain a 4+ on this assignment.\*\*\*