

## Exercise 01: Fish Street Cemetery

Your objective for this exercise is to sort the names of those buried in St Mary Magdalene Cemetery. Those listed in this data were buried at the cemetery between January 5<sup>th</sup>, 1813 and July 10<sup>th</sup>, 1853. Your task is to use a TreeMap to sort these names by burial date. The objects stored in the TreeMap **must** be of type Tombstone.

Task 1:

Create a Tombstone class that has:

- Four instance variables to hold the name, burial date (of type Date), age and residential address
- Two constructors (one default and one that takes in all instance variables)
- Getter/Setters for all four instance variables

Task 2:

Create a Date class that holds the necessary data for a date object (you may write your own or use the built-in Gregorian calendar object in Java).

Task 3:

Create a cemetery class with a single instance variable, a TreeMap, to hold all of the information about the people buried. You need to:

- Write a constructor that takes in a String for the file name to read from
- Instantiate a Tombstone object for each burial record
- Output the number of people buried in the cemetery
- Use a keyset and an iterator to display the burials, in order from earliest burial to latest. You must print the date, the name and the address of the deceased.
- Then, you must output the number of and average age of people from any part of Little Carter lane who were buried between July 1<sup>st</sup>, 1815 and December 1<sup>st</sup>, 1850.

**You must have a CemeteryTester class, that has a main method and creates an instance of the cemetery object.**

Key for Ages:

39 → 39 Years old

11.5 → 11 years and 5 months

15w → 15 weeks