

### CSCI 275 Assignment #3

**Due: Saturday 2/12/22**

**Late: Saturday 2/19/22 (10 pt penalty)**

**Points: 60**

#### Task:

This program practices file IO, strings, and functions.

#### Input:

Data is read from input file **records.txt** attached to the Brightspace assignment. There is an unknown number of records. For each records, there is a resident name, street address, town address, property worth and resident birthdate.

```
Joseph Nolan
112 Main St.
Alfred, ME 04002
132566.75
01/13/1948
```

#### Output:

The final report should be sent to an output file named **letters.txt**. It may be easier to first send output to the monitor until the final run. Note the seniors (age  $\geq 65$ ) have a quarterly payment schedule while others pay taxes two times per year.

Each town has a separate new tax rate:

Alfred 0.035

Sanford 0.030

Lyman 0.038

```
Dear Resident Nolan:
In 2021 your property at Main St. was assessed at $132566.75
The tax rate will be increasing to 3.50% for 2022.
Given your age of 74, you are eligible for the senior payment schedule

Due      Amount
Mar 15   $1159.96
Jun 15   $1159.96
Sep 15   $1159.96
Dec 15   $1159.96

Sincerely, The Alfred Town Office

Dear Resident Candel:
In 2021 your property at Hollowpoint Lane was assessed at $215678.00
The tax rate will be increasing to 3.00% for 2022.

Due      Amount
Jun 15   $3235.17
Dec 15   $3235.17

Sincerely, The Sanford Town Office
```

### Required Functions:

1. Use the function prototypes as listed to practice with references. An IO stream is always passed by reference.

```
// POST: last name (ex. Nolan), street name (ex. Main St.)
//      town name (ex. Alfred), worth string (ex. 132566.75)
//      birthdate (ex. 01/13/1948) are filled with values from
//      line next line of input file if possible
void input(ifstream& fin, string& lastName, string& streetName, string& townName,
          string& worthString, string& birthdate );

// POST: return new tax rate for town
double getTaxRate(string townName);

// POST: report senior payment schedule to output file
void seniorSchedule(ofstream& fout, double worth, double taxRate);

// POST: report regular payment schedule to output file
void regularSchedule(ofstream& fout, double worth, double taxRate);
```

2. No global variables/objects may be used.
3. No break or continue out of loops; the loop should end when the loop test is false.

### Submission:

Upload the source code file with extension .cpp to Brightspace. I will download and run it for testing.  
Note: Code is not accepted that does not compile.

### **Need Help?**

1. Email your question with your attached .cpp source code file. Do not attach an image or a pdf. Do not paste your code into the email body. I would like to download your code so I can test it as needed.
2. Use the scheduling software on the left side of Brightspace to schedule a Zoom meeting with me. If you cannot make the listed times, email me a list of your free times.