CS 2400 Pizza Restaurant
30 Points

Objectives:

Work with structures, text files, vectors/arrays, functions, and strings.

Every day, a pizza restaurant logs all orders of pizzas in a text file. Each line of the file includes the following information:

```
<pizza size (L, S)> <type: wheat/white> <number of toppings>
```

Sample Data File:

```
L wheaT 3
l white 2
s whIte 3
S WheAt 1
L wheat 0
```

A small plain pizza cost $5.00 and a large pizza cost $8.00. Each topping cost either $1.00 or $2.00 depending on the size of the pizza. The restaurant charges $1.00 extra for wheat pizzas.

Design a structure called *Pizza* that includes the size, type, and the number of toppings. Write a C++ program that reads the data from the text file into an array/vector of *Pizza* structures. Your program should output the number of pizza's sold for the day, number of small pizzas, number of large pizzas, and total price of all pizzas.

Your program must include the following:

- A structure called *Pizza* to store each pizza record
- An array/vector to store all the pizza records
- A function to load all the pizza records into the array/vector
- A function that uses the array/vector and returns the number of small and large pizzas.
- A function that uses the array/vector, calculates and returns the total price for all the pizzas
- A function to output all the results

Your program should start by asking the user to enter the input file name and output all the results as shown below.

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Sample Interaction and Output:

```
Enter the pizza log file name: pizza-log.txt

The total number of pizzas sold: 5
The number of large pizzas sold: 3
The number of small pizzas sold: 2
The total price for all pizzas:  $51.00
```

Grading:

Programs that contain syntax errors will earn zero points.
Programs that do not include the above structure and functions will also earn zero points.
Programs that use any library that was not discussed in class will earn zero points.

Your grade will be determine using the following criteria:

- Correctness (25 points)
  - (5 points) For each of the required functions listed above.
  - (5 points) Using constants & clarity and format of the output including good error messages.
- (5 points) Style & Documentation

Follow the coding style outline on GitHub:
https://github.com/nasseef/cs2400/blob/master/docs/coding-style.md