**Project 2 Report**

1. I was trying to think of a way to output only the error message for the earliest erroneous input item. Then the thought of an if ~ else if ~ else if ~ else popped into my head. I decided to write out all the invalidities first in the order that Prof. Smallberg wrote down on the spec and wrote the bill calculation for the else statement. It handled everything perfectly.
2. I tried the examples Prof Smallberg posted

Initial meter reading: **3425**

Final meter reading: **3449**

Customer name: **Jake Gittes**

Month number (1=Jan, 2=Feb, etc.): **11**

and I did get The bill for Jake Gittes is $151.08

Initial meter reading: **7096**

Final meter reading: **7106**

Customer name: **Evelyn Mulwray**

Month number (1=Jan, 2=Feb, etc.): **7**

and I did get The bill for Evelyn Mulwray is $54.10

Test case for when initial meter reading is negative: (-10, 20, “Eric”, 8)

🡪 The initial meter reading must not be negative. (correct)

Test case for final meter reading is less than the initial reading: (10, 5, “Eric”, 8)

🡪 The final meter reading must be at least as large as the initial reading. (correct)

Test case for when empty string was provided for customer name: (10, 20, “”, 8)

🡪 You must enter a customer name. (correct)

Test case for when the month inputted is not an integer between 1 and 12 inclusive: (10, 20, “Eric”, 13)

🡪 The month number must be in the range 1 through 12. (correct)

When input is valid:

All my outputs were correct when compared to the Lost Angeles Calculator

High Usage season when it doesn’t go above 23: (10, 20, “Eric”, 5**)**

🡪 The bill for Eric is $54.10

High Usage season when it does go above 23: (10, 34, “Eric”, 5)

🡪 The bill for Eric is $134.22

High Usage season when it is exactly 23: (10, 33, “Eric” 5)

🡪 The bill for Eric is $124.43

High Usage season when it is exactly 23: (10, 33, “Eric” 5)

🡪 The bill for Eric is $124.43

Low Usage season when it doesn’t go above 15: (10, 20, “Eric”, 12)

🡪 The bill for Eric is $54.10

Low Usage season when it does go above 15: (10, 34, “Eric” 12)

🡪 The bill for Eric is $151.08

Low Usage season when it is exactly at 15: (10, 25, “Eric”, 12)

🡪 The bill for Eric is $81.15

High Usage season month boundary (April, October)

April (10, 34, “Eric”, 4)

🡪 The bill for Eric is $134.22

October (10,1005, “Eric”, 10)

🡪 The bill for Eric is $9640.31

Low Usage season month boundary (November, March)

November (10, 123, “Eric”, 11)

🡪 The bill for Eric is $842.61

March (10, 432, “Eric”, 3)

🡪 The bill for Eric is $3243.54

Check if name with space is inputted correctly

(10, 432, “Eric Lee”, 3)

🡪 The bill for Eric Lee is $3243.54