

Question 1:

For this question, I read through every line of the sample and split everything into individual words. I then got rid of certain characters such as parenthesis and semicolons and such. After that, I checked if the words that I had were in the set reserved, and if they were not I inserted them into idents to be printed.

Question 2:

For this, I read through each line of the file. I had an integer max and string called max country. As I checked each line if the number of cases was greater than the max, I set max = the number of cases and maxcountry = the country. Then outside the while loop, I printed maxcountry to show the country with the most cases.

Question 3:**Linear:**

The index for this was $x \% \text{linear.size}()$

Quad:

The index for this was $(x+i*i) \% \text{quad.size}()$, where 'i' was incremented by one each time there was a collision.

Double:

The index for this was $(x+i*\text{dubHash}) \% \text{duble.size}()$, where 'i' was incremented by one each time there was a collision.

Question 4:

For the hash function, I converted the string to an int.

For this question, I had to take care of every case possible. As you look through the insert function you see that I take care of these cases.

1. Inserting the first bit of data
2. If the data is on the same level as another bit of data that was previously inserted
3. If the data needs to be inserted in the middle of two keyNodes because it's hash key is in between two others.
4. If the data is inserted in the bottom of the map