a.

The first obstacle is that how to assess a string whether it is empty or not. Originally, I though it should be comparing the string with “ “ (a space) or “\n”. However, none of them works well. I finally found in the recorded lecture that it should be comparing with “” (nothing inside). The second problem is how to set up a logical assessment about how much import duty it requires. There are two solutions. The fist one is that separating the assessment into three different ranges, including <= 1000, 1000 < x <= 13000, and >13000. In the last two ranges, determining whether the type is Cheshire or stilton, which have special duty rate. The second is assessing the type first, then separating into three ranges. I used the first more because it looks more logical and requires less statements.

b.

duty for normal cheese, whose value is less than 1000 (Cheddar, 865, Westwood Cheese Store)

duty for normal cheese, whose value is between 1000 and 13000 (Mozzarella, 5600, Westwood Cheese Store)

duty for normal cheese, whose value is more than 13000 (Parmesan, 15000, Bruin Store)

duty for Cheshire, whose value is between 1000 and 13000 (cheshire, 7000, Bruin Store)

duty for Cheshire, whose value is more than 13000 (cheshire, 18000, Beverley Hills Store)

duty for stilton, whose value is between 1000 and 13000 (stilton, 6000, Santa Monica Store)

duty for stilton, whose value is more than 13000 (stilton, 18000, Santa Monica Store)

empty type name (, 5000, Bruin Store)

negative value (cheddar, -500, Bruin Store)

empty importer (cheddar, 5000,)