According to the textbook, syntax is the rules of a certain language. In programming, if all of the keywords, operators, and other elements are present and the operation succeeds, then it can be assumed that the syntax is correct. For example, take the English language. I will look at the conjugation of is, relating to something’s state of being.

I am hungry.

You are hungry.

He is hungry.

As compared to the statements

I is hungry

You is hungry

He are hungry.

The meaning of every statement is the same. The object of the sentence is hungry. However, the syntax in the last 3 sentences are incorrect. Grammatically, they don’t follow the rules of English’s conjugation of “to be”. Therefore, the syntax is violated.

Semantics is more concerned with the meaning of a statement. An example of code that I found online that I thought was applicable was

if 1 = 1 then S1 else S2

This snippet also essentially means

S1

Therefore, through this, it is recognized that through different methods, the semantics of code can potentially mean the same thing. Compared to other coding languages, statements are similar if they have the same semantics, but their syntax is almost certainly different.