A Java application always starts by executing the main() method. The main() method is in the StartUp class, on line 07 of the code. Our sequence diagram starts with the first message sent by the main() method, on line 13, i.e. IssueBikeUI ui = new IssueBikeUI(). This creates a new :IssueBikeUI.

- The next message, showBikeDetails(bikeNum), on line 16, is sent by StartUp to the new :IssueBikeUI.
- To find out what happens next we need to find the method showBikeDetails(bikeNum) in the IssueBikeUI class (on line 42) and follow through the lines of code that implement this method until we find the next message (or method call).
- The next message is findBikeByNumber(bikeNum), in the instruction chosenBike = Bike.findBikeByNumber(bikeNum) on line 44. This is a call from :IssueBikeUI to the Bike class.
- We then go to the Bike class, find the method findBikeByNumber(bikeNum) and follow through the lines of code that implement it until we come across the next method call. The method findBikeByNumber(bikeNum) is on line 110.
- The next method call is in line 116 where the getBikeNumber() message is sent to each of the :Bikes in the bikeList array. As the array of :Bikes is in the Bike class, this is a reflexive or self-referencing message. The number of each :Bike in turn is compared to the value of bikeNum. When a matching :Bike is found, the reference to that :Bike is returned to :IssueBikeUI.
- With a return statement, control is returned to the calling method at the point immediately after the method call. This means that the next line to be executed will be line 45. Line 45 is an 'if' statement that checks that a matching bike has been found (if no bike is found a null is returned). If a bike is found, its reference is returned and assigned to the variable chosenBike. A showDetails() message (line 47) is then sent to the appropriate :Bike.
- showDetails() displays details of the :Bike and returns control to :IssueBikeUI at line 48.
- Line 48 contains the curly bracket that indicates the end of the 'if' statement. Line 49 contains the curly bracket that indicates the end of the showBikeDetails() method, so control is returned to StartUp at line 19.

We hope that this explanation will allow you to follow the rest of the sequence of execution on your own, using Table 11.1.