

Your job is to implement the simulation of an assembly line that will build Cars. Each Car is made up of several components: tires, seats, engine and frame. Each of these components takes a different amount of time to build on their own. Here's the breakdown on the simulated time each component takes to construct:

- Tire – 2 seconds
- Seats – 3 seconds
- Engine – 7 seconds
- Frame – 5 seconds

With these times, you must implement the code that will simulate the construction of each of these components individually, then once all the necessary components are built you must put them together to make a car. To build a car, you'll need 4 tires, 5 seats, 1 engine and 1 frame. Here's the catch, the assembly line can only and should only be capable of building 3 Components at any given time. You'll need to implement this in your code.

Once you've completed the assignment, try and fiddle with the order of which the Components are assembled on the line. Is there a particular order that provides the fastest building time for a Car?