1. In many real-world systems, there are numerous types of packets; different packet types may have different numbers of data bits, and some packet types with lots of data may require multiple ring slots for their transmission. In this case, the first ring slot of any packet would hold a field telling the packet type, and any subsequent ring slots would have a very packet-dependent format. How would your tracker code change if there were multiple packet types, and each occupied a different number of ring slots?

* If we already know the types of the packets, we can use switch/case or if/else in the find\_and\_print function. We can determine the types of the packets according to the first ring slot, then determine the detailed information in the different cases.
* The types of queue vals [$] could also be changed according to different types of packets using method mentioned previously.
* Others can remain in the same format as before.

1. The tracker that we’ve built is essentially a monitor. Once it has abstracted the bits into high-level packets, we might want to use them to write checkers. What things might you check using the output from this monitor?

* Whether the package is going the path we expected. If the package doesn’t turn in expected mesh or turn in unexpected ones, the checker could print out a warning. If a package disappears without reaching its destiny, the checker could print out an error and basic info of the lost package.
* Whether there are two identical packages in the mesh.