For this project, you will continue from Project-1A, developing another DataLinkLayer subclass that uses a cycling redundancy check (CRC) to detect errors.

1 Writing another new data link layer

Your assignment: You must create a new data link layer, CRCDataLinkLayer, that is a subclass of the abstract DataLinkLayer class. As with the previous ParityDataLinkLayer, when an error is detected, this data link layer should print an error message, show the (incorrect) data, and not provide the data to the receiving host. It should likewise divide messages into frames each of which contains no more than 8 bytes.

Begin your CRCDataLinkLayer.java as a copy of your ParityDataLinkLayer.java. You can then modify the code that performs error detection, substituting the use of the CRC checksum for the simpler parity evaluation.

2 How to submit your work

Go to GradeScope for our course, where you can submit your work. It will be auto-tested, and you will see whether it compiles and runs successfully. Again, if the run fails, it won’t tell you why; you need to go back and do more testing yourself. You may submit early and often!

Notice that you should only submit CRCDataLinkLayer.java. Don’t submit the other source code or class files.

This assignment is due on Friday, Mar-11, 11:59 pm.