

NETWORKS

PROJECT 1B

Data link error detection: CRC

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.