Link: <http://www.studytonight.com/computer-networks/osi-model-datalink-layer>

#### Add this before: FUNCTIONS OF DATA LINK LAYER:

The main task of the **data link layer** is to transform a raw transmission facility into a line that appears free of undetected transmission errors to the network layer. It accomplishes this task by having the sender break up the input data into **data frames** (typically a few hundred or few thousand bytes) and transmit the frames sequentially. If the service is reliable, the receiver confirms correct receipt of each frame by send back an **acknowledgement frame.**

**Design Issues with Data Link Layer:**

* The issue that arises in the data link layer (and most of the higher layers as well) is how to keep a fast transmitter from drowning a slow receiver in data. Some traffic regulation mechanism is often needed to let the transmitter know how much buffer space the receiver has at the moment. Frequently, the flow regulation and the error handling are integrated.
* Broadcast networks have an additional issue in the data link layer: how to control access to the shared channel. A special sublayer of the data link layer, the Medium Access Control (MAC) sublayer, deals with this problem.

**Replace the given image with:**

