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Design

For the first part of the project, the flooding task and Neighbor discovering task were implemented in the same module file (Node.nc). This is not the cleanest design, but I was focusing more on getting things to work first and later worry about modularization. The flooding task was accomplished using the ping protocol. Here, the node should know what to do with a package that is not meant for it. Basically, upon receiving a message, the node will see the destination and if the packet is not it, it will broadcast the package again and decrease its TTL by one. This would happen in each node until the final destination is reached or TTL reaches zero. Also, there is a list that keeps the packages that a node has sent/received so far at any time in the network. This list is used as a sort of a cache. Though neighbor discovering it is still buggy by the time of submission, the process of neighbor discovering is implemented upon receiving a message. When a message is received, the node identifies what protocol is being used and checks the message's destination address. If the node got a ping, the node will send its id to the sender. If the node has received a ping reply, it has heard back from a neighbor. So this neighbor is put in the neighbor list.