Consider a Bridge/Adapter like device which separates two segments of a network. This device cannot send or receive messages (similar to the repeater), but the additional functionality of this device is to convert the message format from one side of the network to a format understandable by the other side of the network. Due to this transformation effort the device reduces the strength of the signal by 2 points. The type of transformation will depend on the type of BRIDGE.

Message can be considered to be a simple string

For now, lets consider the following types of bridges - 1. UPPER - Upper converts a string message from any case to upper case 2. LOWER - Lower converts a string mesage from any case to lower case.

A sample network with Bridge is given below. `a1 / \ a2 a3  — a4 — r1 — a5 - g1 - a10 | | a8 a6 | | a9 - a7`

Add support for the following command:

ADD BRIDGE

Example:

ADD COMPUTER A1

ADD COMPUTER A2

ADD COMPUTER A3

ADD BRIDGE B1 UPPER

CONNECT A1 A2

CONNECT A2 G1

CONNECT B1 A3

You can send a message between two devices using SEND command

SEND A1 A3 Hello

Once message reaches A3, A3 should Print "HELLO" as G1 is a bridge that converts message to uppercase