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Exercise No. 11
Peer-To-Peer Networks
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Exercise 1 *Distance Vector Routing*
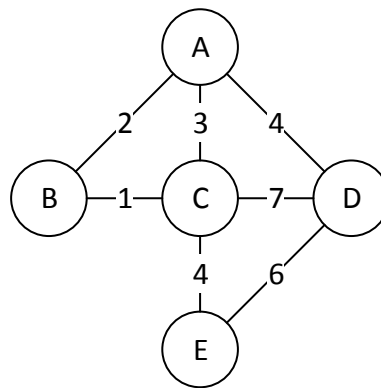
Consider the network in figure 1.

Figure 1: Title

1. Apply Distance Vector Routing. Give the distance table for node B and node D.

2. Node C does no longer respond. Give the new distance table for node E.

Exercise 2 *TCP*

Whenever a new TCP connection is opened, the participating parties will exchange a SYN-ACK-ACK-handshake and whenever a connection is closed, both clients exchange a FIN-ACK-FIN-ACK-handshake.

1. Why the second ACK when opening a connection? What happens if it gets lost in transmission?

2. Why is necessary to exchange two FIN-ACKs instead of just one?

Every packet within TCP has a sequential counter, named *seq* in the lecture.

1. What use does *seq* have?

2. Could you also send a random number instead?