Demystifying Networking
Prof. Sridhar Iyer
Department of Computer Science and Engineering
Indian Institute of Technology, Bombay

Lecture – 38
Discussion on Dabbawala Analogy

Welcome to week 2 of this course on Demystifying Networks. Last week, we saw how a network is made up of different layers and how protocols define rules between these layers to communicate and what role do addresses play in this communication.

And we also wanted to understand what roles do the routers play. So, what we did was, we saw an analogy of Dabbawalas. So, the dabbawalas are known for routing tiffins in the entire city of Mumbai and by this analogy we try to understand how routing works.

To summarize the dabbawala analogy, we saw that there are three types of dabbawalas: one at the source who brings dabbas from homes to the train station, the second type of dabbawalas are present in the trains who sort these dabbas and the third type of dabbawalas get those dabbas at the destination station and deliver it to their respective destinations.

So, now you have the summary of what the roles of dabbawalas are. It is a good time to take a question. So, we have a reflection spot question for you. So, you may pause the video for a while and make a note of your answer and then you may continue watching.

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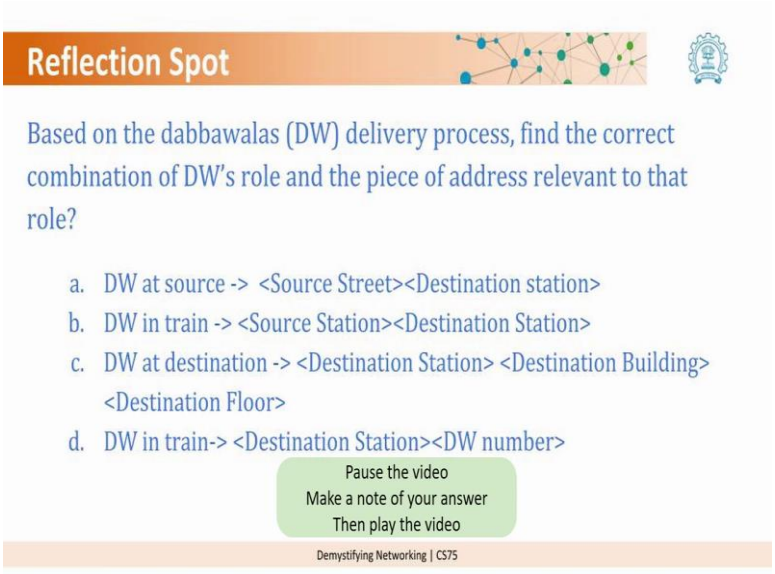

Based on the dabbawalas delivery process, find the correct combination of dabbawala roles and the piece of address relevant to that role: a) dabbawalas at source, the piece of information is source street and destination station, b) dabbawalas in train: source station and destination station, c) dabbawalas at destination: destination station, destination building and destination floor and d) dabbawalas in train: destination station and dabbawala number.

Some of you might have picked the option a.

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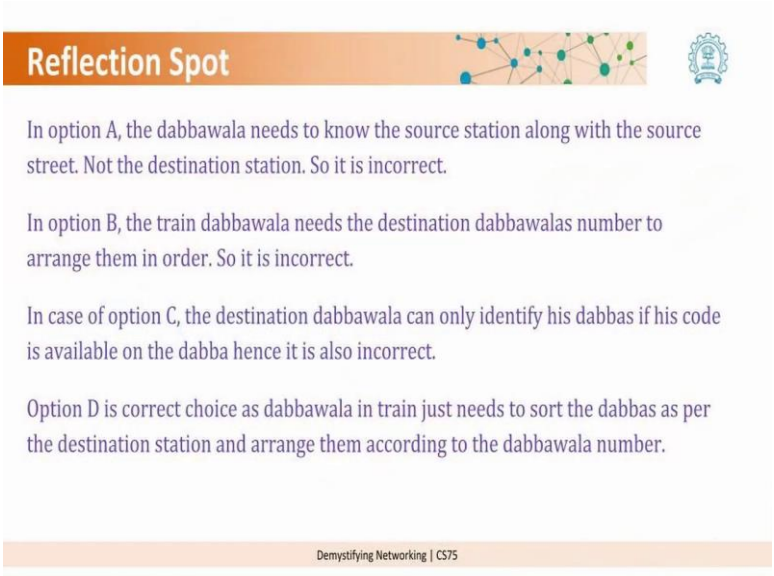

But here the dabbawalas need to know the source station along with the source code, but not the destination station. So, this is an incorrect option.

And for those who had picked option number b, the dabbawalas in the train need to know the dabbawala number of the destination station to arrange the dabbas in that category.

In case of option c, the destination dabbawala can identify his dabba only if his code is present on the dabba, but not in other cases. So, option c is also incorrect.

And finally option d, the dabbawalas in the train require just two pieces of information which is, the destination train station and the destination dabbawala number who will collect the dabba. So, option d is the correct option.

Now, we have another reflection question. You can read the question, pause the video, pick your option and then continue watching the video.

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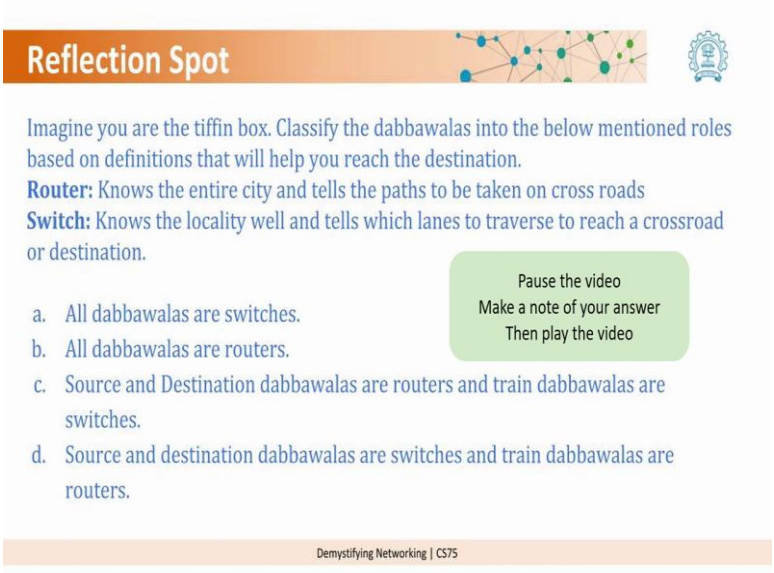

Imagine you are a tiffin box, classify the dabbawalas into the below mentioned roles based on the definitions that will help you reach the destination.

A router is one who knows the entire city and tells the paths to be taken on cross roads. A switch is one who knows the locality well and tells which lanes to traverse to reach a crossroad or destination.

The options are a) all dabbawalas are switches, option b) all dabbawalas are routers, option c) source and destination dabbawalas are routers and train dabbawalas are switches, option d) source and destination dabbawalas are switches and train dabbawalas are routers.

So, some of you might have selected the option a. So, as we heard from the definition, the switching dabbawalas know their localities very well.

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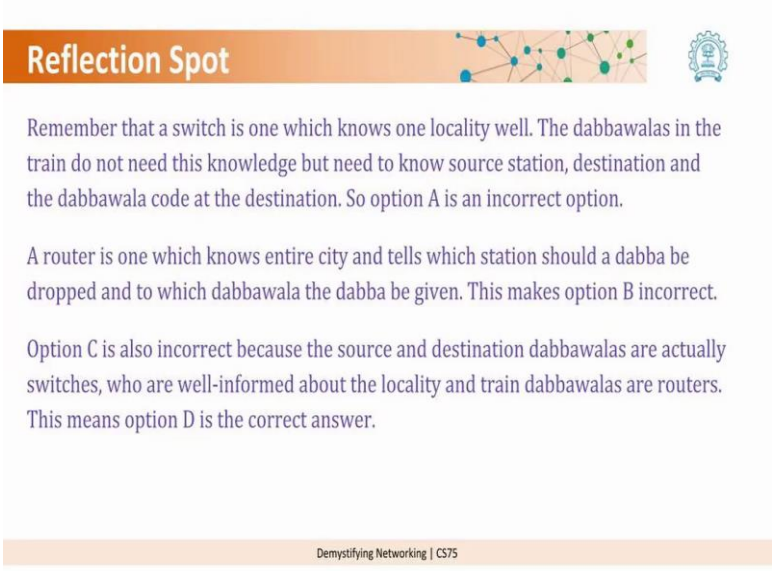

So, if we look at the two roles of the dabbawalas, the source and the destination dabbawalas are required to know their locality well because they pick the tiffins and drop the tiffins. Hence, all of them cannot be the switching dabbawalas.

Some of you might have picked option b, that is, all dabbawalas are routers. However, a router will know only when a crossroad comes and it knows the city very well but not the locality. So, all dabbawalas cannot be routers, but there needs to be some switches too.

And now you might have guessed the right answer. Yes, the right answer is d. So, based on the previous two explanation we see that the dabbawalas in the train are the ones who are routing the dabbas from one place to the other whereas, the dabbawala at the source and destination are switching the dabbas, which is, they know the locality very well unlike the dabbawalas in train who know the entire city very well. Hence, the option d is the correct option.