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When we first started the project we were going to model our world over a real city transportation system, and we first decided that the NYC train network would be a good choice since it is a well established system with the information being publicly available. But upon implementing it we realized that our initial plan was too ambitious. The system itself was huge, according to wikipedia there were 472 stations and 36 lines. The connections are complicated as some stations have different names because they are actually a few stations connected together. Plus sometimes the name duplicates but they are actually different stations, for example 4 lines stops at “125 street”, but these are 4 different stations at 4 different locations.

Because of this we decided to tone down the scale of world representation and focus on getting the more important part of belief revision, then when we have the time we can make the system more complicated later.

We came up with some conditions for how to represent our beliefs. As a basic concept, we created our own train network and there are 3 trains, each train circulates in a specific section. Each train has a specific condition when it stops at a station. This condition allows the user to decide whether to ride the train or not.

There can be various conditions for this such as dirty, smelly, slow, etc. In addition, each condition should have a detailed description. The condition of dirty must have details such as there is a sandwich on the train or someone vomiting. The smelly condition has details such as a skunk is on the train or someone is eating food. The

slow condition has details such as the train has limited speed or it changes local trains. For these reasons, the train causes a certain state, which allows users to decide whether to ride the train.

The train status or conditions that we have come up with thus far are dirty, crowded, delayed, and suspended. Depending on the train status or condition, the commuter may need to re-route or change their travel plans. Each of the train conditions that we have organized would be caused by some sort of event or maybe even a sequence of events. For instance, the train would have the train status of “dirty” if the train carts have not been cleaned for a week and people have been leaving behind garbage on the train. Another possible event that would cause the train to be dirty is when it is snowing or raining since commuters would bring wet clothings, shoes, and umbrellas onto the train which would cause the train to be wet and dirty. Another train status that we have come up with is crowded. Some factors that would cause the train to be crowded would be that the train is running at rush hour, the train is the only available train, or an event is happening at a location that only the train makes a stop at. Next, for the train status to be in “delay” we came with a few possible situations. First, the train would be in delay if there is construction happening on a train track that the train is running on. Or if an accident has happened such as a person falling onto the train track it would also cause a train delay. In addition, a flooding of a train station is another event that we plan to use to cause the train to be delayed. Finally, we plan to have a suspended train status where a train is no longer running so the commuter is forced to take another train in order for them to reach their destination. There are several events that we have developed that would make the train in our program

suspended. One of the situations or reasons is that the train company is working on an improvement project for the train and its respective train stations, thus the train will no longer be available until the improvements are completed. Another reason that we could suspend the train is to say that the train is too old to function anymore.