Additional TeknoVe Info for Project Step 2

UC 2

As a global company, tax is an incredibly important line item for TeknoVe. Not only does it significantly affect their earnings each quarter, the cost to ensure compliance alone is in the millions of dollars. The tax team is incredibly excited by the prospect of a system that helps them optimize their policies. A concern they have, however, is the frequency with which tax policies are updated and the variety of data formats made available. While many countries tax laws can easily be codified due to simplicity, consistency, or data format, others are much more difficult. The team worries that a fear of information being out of date will result in the team just double checking results every time. They certainly don't want a computer to be responsible for the firm double paying or, worse, unlawfully evading taxes.

UC 4

The team feels highly confident that they'll be able to augment the maintenance experience for customers by using ML in the car dashboard. TeknoVe's vehicles are armed with thousands of sensors and the company maintains a rich history of failures thanks to each car's built in network connectivity. One feature the team insists on, however, is that of explainability. Users have told them it's not enough to know that the car is going to break down, they want to know why it is going to break down ahead of time. The team is confident this is achievable through some recent advances in interpreting black-box AI models. That being said, they worry that their dataset does not contain the necessary variety to enable this next step.

UC 5

The VP of Supply Chain has collected some rich data around production costs in each of their factories, transportation costs from these facilities to pick-up locations around the globe, and switching costs at each factory. With all of this data, the team feels confident they can build a model that minimizes costs to the firm so long as they can coordinate with manufacturing and sales. On the manufacturing side, it is imperative that if a switch is made, the right materials are in place. This may result in some technical and cost hurdles. At the same time, it is imperative that sales can accurately predict demand at each of their locations. While sales figures are always available, these have proven to be inaccurate in the past. The team worries that if they are off by a significant margin, the transportation costs to move inventory across the country or produce it at the last minute could eliminate any cost savings gained.