**Public Gas Works Case (PGWC)**

You are working with the local gas company to analyze what it costs to serve customers and why they are losing money on an increasing percentage of customers. You have identified a potential problem:

**PGWC** seems to be turning on gas for a number of customers in November, only to have them turn it off in April. The company incurs the “Turn on” charge as well as the “Shut off” charge for only six months of revenue. The company is supposed to assess this risk up front and demand payment of a fee, any unpaid invoices, and a deposit for those customers who are apt to fall behind in their payments or shut off their service. You need to understand what this policy is and how its being applied to see if they need to change it, enforce it, or look elsewhere for the real problem.

You ask Gayle Gellippi, Customer Service Manager to explain the deposit policy to you. This is what you hear.

*“We look at how likely a customer is to become delinquent or shut off and charge accordingly, its really simple. It costs $150 to “Turn on” a gas connection. We check all our customers’ credit ratings to see how good it is. We also look at their history with us ( i.e. have they been a customer before). Of course, if they owe us any money, we insist that they pay us before we reconnect them. If the customer has new construction and three or more gas appliances in their house, we waive the “Turn on” fee and charge no deposit. If their credit rating is poor we charge a deposit of $200 in addition to the “Turn On” fee. When we look at their history, if they have connected/disconnected many times, then we double the deposit to $400. Customers with good credit but with only a few appliances pay just the initial fee.”*

Using the information provided,

1. Identify the set of business rules that PGWC is using to decide what to charge a customer when they create a new account.
2. Draw a Decision Tree of how PGWC should link these business rules to decide what to charge.
3. Write a list of questions that you want to ask Gayle when you go back to her with your draft rules to check if they are correct.