Slide 2

What is our motivation? Lung cancer accounts for about 1 in 5 of all cancer deaths, surpassing colon, breast, and prostate cancers combined. For women, there is a 1 in 17 chance of developing lung cancer in their lifetime and 1 in 16 chance for men. These chances are not fixed, for example if you smoke the risk goes up, if you do not smoke the risk goes down. Performing data analysis on several factors can help people understand what habits they engage in and what characteristics they have that put them at risk.

This could show people what options they have to reduce their risk and potentially avoid lung cancer, or on the flipside what symptoms are associated with lung cancer. Because early detection means early treatment which is essential for remission and even curing cancer, depending on the stage and type.

Slide 7
Some basic information about patients: The mean age is 37 and the median is 36. A fairly young-centered sample when more generally, the average person is diagnosed with lung cancer at 65+. This could be to our benefit because the observations we make on habits and characteristics will apply to an overall larger population and could improve the quality of their life for a longer time. We also have our gender distribution, there are more males than females. And our Level distribution where there are more high levels of lung cancer.

Slide 10
Getaway: While smoking is considered a strong factor in developing lung cancer, we should pay attention to alcohol use and diet as well. This could also be a reflection of this sample of people or the quality of the data collection. Neither of which is described anywhere. (Patients want to remain anonymous)

Slide 14

Both models achieved high accuracy 98-100%. That being said, it is only 1,000 patients (the data is fairly simple) and further verification would require testing new data for sensitivity, specificity, and accuracy

Slide 17

If someone asks coughing blood, fatigue, and or dry coughing alone may not be an indication of Lung cancer but especially in combination they could indicate systemic issues like damaged lung tissue