

## 1) The chart shown above is a lift chart.

As per the highlighted data, it denotes how good your model is.basically your model should have higher lift.it says that if I use my model and select top 10% of the population I will get 20% of the diabetic patients.so cumulative lift here has 2.0527.so a better model should have a higher lift.

So if I don't have a model if I choose 10% of the population mostly I will get only 10% of the diabetic patients.so higher lift for the model will definitely give a better advantage.

## 2) Study the links below:

https://www.quora.com/What-is-logistic-regression/answer/Ratnakar-Pandey-RP

## 3) study on the lift chart:

Red line is Random line without building any model.as per Redline,

If I select 2 groups I am able to capture 20% of the responder.

Similarly if I select 4 groups I am able to capture 40% of the responders and so on.

Blue line is lift line got by building a model:

As per Blueline, if you use a model for finding the criteria, as per the model, If I select 2 groups I am able to capture 40% of the responder (like 40% of diabetic patients in diabetes.csv dataset). so Building model has improved my reach twice. and higher the left better is the model.

As you close to 100% of the population there is diminishing returns and lift will not carry any meaning then.

