Define:	**Additional Prompt:**
Regression problem	Give an example.
Classification problem	Give an example.
Prediction	Give an example of a scenario where you might be asked to provide a prediction.
Inference	Give an example of a scenario where you might be asked to conduct inference.
Bayesian statistics	What is a Bayesian interpretation of "50% chance of rain tomorrow?"
Frequentist statistics	What is a frequentist interpretation of "50% chance of rain tomorrow?"
Supervised learning	Give an example of a situation that uses supervised learning.
Unsupervised learning	Using the same example as above, explain how you can apply unsupervised learning to the same situation.

Error due to bias	Give a specific example of a situation where a model might have high error due to bias.
Error due to variance	Give a specific example of a situation where a model might have high error due to variance.
Bias-variance tradeoff	Explain the bias-variance tradeoff as if your boss were five years old.
Regularization	In what circumstances is regularization used?
Bayes' Theorem	One jar has 5 A pills and 5 B pills. The other has 7 A and 3 B. I pull a B pill from a jar. Find the probability that the pill came from the first jar.
MapReduce	Describe how MapReduce can be used to average many numbers.

Confusion Matrix	Generate a confusion matrix with a true positives, b false negatives, c false positives, and d true negatives.
Sensitivity	What is the formula for sensitivity using the above confusion matrix?
Specificity	What is the formula for specificity using the above confusion matrix?
Accuracy	What is the formula for accuracy using the above confusion matrix?
Precision	What is the formula for precision using the above confusion matrix?
ROC Curve	Explain how the ROC curve is generated.
AUC ROC	What is the difference between ROC and AUC ROC?

Model	**R/C**	**S/U**	**What's Unique?**	**Explain Method to Client**	**Pitfalls**
Linear Regression					
Logistic Regression					
k-Nearest Neighbors					
Decision Trees					
SVMs					
PCR					
k-Means Clustering					
Hierarchical Clustering					
DBSCAN					
Neural Networks					
Naive Bayes					
ARIMA					