	Ideal Score	Score	Wid Sogata and James Tsai Lending Club Instructor Notes
Total Points	20	16	
Total Percentage	100	0.8	
Exceptional Work	10	3	The PCA, was good, but mostly I used this to give you credit for the features exploration.
Define and prepare your class variables. Use proper variable representations (int, float, one-hot, etc.). Use pre-processing methods (as needed) for dimensionality reduction, scaling, etc. Remove variables that are not needed/useful for the analysis.	10	10	
Describe the final data set that is used for classification/regression (include a description of any newly formed variables you created).	5	5	
Choose and explain your evaluation metrics that you will use (i.e., accuracy, precision, recall, F-measure, or any metric we have discussed). Why are the measure(s) appropriate for analyzing the results of your modeling? Give a detailed explanation backing up any assertions.	10	10	I agree that precision and recall are better than accuracy for this task (actually a tradeoff between them). Your validation for these is sprikled throughout the notebook.
Choose the method you will use for dividing your data into training and testing splits (i.e., are you using stratified 10-fold cross validation? Why?). Explain why your chosen method is appropriate or use more than one method as appropriate.	10	10	10 fold cross is warranted.
Create three different classification/regression models (e.g., random forest, KNN, and SVM). Two modeling techniques must be new (but the third could be SVM or logistic regression). Adjust parameters as appropriate to increase generalization performance using your chosen metric.	20	20	Lots of models investigated here.
Analyze the results using your chosen method of evaluation. Use visualizations of the results to bolster the analysis. Explain any visuals and analyze why they are interesting to someone that might use this model.	10	7	This was a good analysis, but I think you could pull more out in the mutinomial case about which classes are most important and which classes are getting modeled well. Will really help to inform the business case for this model.
Discuss the advantages of each model for each classification task, if any. If there are not advantages, explain why. Is any model better than another? Is the difference significant with 95% confidence? Use proper statistical comparison methods.	10	2	I wanted to see a discussion of the advantages/disadvantages for your specific problem in relation to the models you looked at, not a generic explanaiton of the classifiers. I also wanted to know what are, statistically, the best performers.
Which attributes from your analysis are most important? Use proper methods discussed in class to evaluate the importance of different attributes. Discuss the results and hypothesize about why certain attributes are more important than others for a given classification task.	10	8	PCA was completed here, though there are better methods you can use from SVm, decision trees, or even random forests.
How useful is your model for interested parties (i.e., the companies or organizations that might want to use it for prediction)? How would you measure the model's value if it was used by these parties? How would your deploy your model for interested parties? What other data should be collected? How often would the model need to be updated, etc.?	5	5	Wanted specifically to your problem.