**Comprehensive Assignment – 130 points**

ITSS 4351

Use: AdventureWorks2014 as the Data Source and vTargetMail+Prospective Buyer for the Data Source View

1. Create a new Mining Structure, called Target Mailing to predict BikeBuyer, using Age, Commute Distance, Marital Status, Number of Cars Owned, Number of Children at Home, Total Children, Yearly Income. Add First Name, Last Name, Email Address, Address Line 1, Address Line 2 so that it can be used for Drill Through later. The Testing Dataset should have 30% cases and max of 500 cases. Create the following models - Decision Tree, Clustering, Naïve Bayes. **Paste a screenshot** of the Mining Models tab – 20 points
2. View the Decision Tree. Select any node that combines 3 or more inputs. Paste the screenshot of the Mining Legend. Explain in your own words what is the meaning of the data that you see listed in the mining legend. Hint: Look at the combination to predict the probability of someone buying a bike – 20 points
3. Drill through to display the Model Columns of the node “Number of Cars Owned = 0”. **Paste the Screenshot** - 5 points
4. Which are the 2 weakest variables that can be used to predict the Bike Buyer variable. **Paste the appropriate screenshot** – 5 points
5. Which Cluster has the most number of cases for Bike Buyer = 0? **Paste an appropriate screenshot** – 5 points
6. For Cluster 4, what is the age range that has the highest probability for buying a bike? **Paste an appropriate screenshot** – 5 points
7. Use the Lift Chart to highlight the score of the different charts for Bike Buyer = 1. **Paste a screenshot** . – 10 points
8. Using the Mining Model Prediction, PredictProbability for BikeBuyer = 1. List the FirstName, Last Name, Email Address, Address Line 1, Address Line 2. **Paste the SQL Query** Below –20 points.
9. Display the Results of the Query created in #8. **Paste a Screenshot** – 10 points

**SAP Crystal Reports – 30 points**

1. Create a new connection to the AdventureWorksDW database. Select the table – ProspectiveBuyer. List all the fields in the “Fields Explorer”. **Paste a Screenshot** – 10 points
2. Create a Report with the following
   1. First Name
   2. Last Name
   3. Gender
   4. Email Address
   5. Report Header – “End Semester Assignment”. Align it – Center and **Bold** it
   6. Add the Page Number at the Bottom

**Paste a Screenshot** of the Design View – 10 points

1. Add a new Parameter for Marital Status. Let the Parameter show multiple values. Add a Prompt to filter your report. **Paste a Screenshot** of the Prompt Window – 10 points