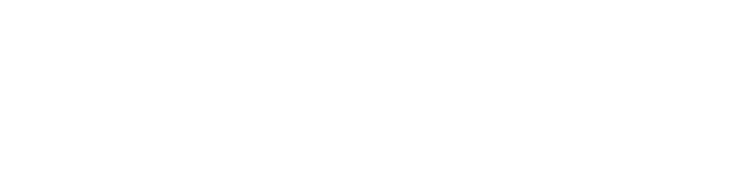
**Spring 2017**



**44566 – Applied Data Analytics**

**Assignment 01 – 10 Points Individual Submission**

1. How would you define data analytics in three lines? 2M

1. A collection of methods, techniques and processes that examine data after identifying the data into various categories, patterns and requirements. The analysis of this data to suit the organizational requirements can be defined as Data Analytics.

2. What are the different steps in data mining process? List them. 2M

1. The different steps in data mining process are :
2. Gathering sources of information from resources like database systems, web documents, files etc.
3. Grouping the data into relevant categories according to the requirements.
4. Analyzing the transformed data and process the relevant data by summarizing operations as a part of preprocessing
5. Discovering and associating a data pattern and identification of the extracted and clustered correct information as transformed data
6. Deducing and reporting the results in various suitable reports such as graphs, outcomes etc.

3. Define predictive analytics and list five algorithms used for it. 2M

1. Predictive analysis is the process in which the statistical techniques are applied to the data extracted to bring about outcomes, predict the behavior and look out for the trends.

The five algorithms used for it are:

* Regression
* Clustering
* Naïve Bayesian Classification
* Machine Learning Techniques
* Support Vector Machines

4. What is association? Which algorithm is good for association? 2M

1. The rule that discovers the probability of occurrence of data together in a data set together is called association. The method reveals interesting relations between the data in the databases. Apriori algorithm that uses a "bottom up" approach is the algorithm good for association.

5. Compare the work of a data analyst at strategic and tactical levels. What differences do you see at both the levels. 2M

A. A data analyst at a strategic level, in a position higher than the data analyst works only on the key point indicators of the data analysis trends of the department on a monthly basis and monitors the progress of the analysis towards the goals. A data analyst at a tactical level starts the analysis from the basic dimensions of the database monitoring on a daily or weekly basis and has a better overview of the initiatives while reaching the goals.