



QUICKSTEP COMPUTER CENTER

National Accreditation Board of Education Training.
(NABET)- Quality council of India) An ISO 9001:2008

Big Data Analytics syllabus

- ✦ Introduction to Data Science
- ✦ Analytical Terminology, Analytical Methodology
- ✦ Introduction to SAS, R, R-studio interface
- ✦ Data Collection, Creating Datasets
- ✦ Reading Data From External Files (.Txt, .Xls, .Csv) — Tasks
- ✦ Data Exploration: Proc Print, Proc Contents —Tasks
- ✦ Data Exploration: ProcGchart, ProcGplot — Tasks
- ✦ Data Exploration: Statistical Terminology
- ✦ Data Exploration: Understanding Probability
- ✦ Data Exploration : Analyzing Categorical Data (ProcFreq) — Tasks
- ✦ Data Exploration : Hypothesis, Types of Errors
- ✦ Data Preparation: Arranging the data: Proc Sort, Proc Format-Tasks
- ✦ Data Preparation: Keeping, Dropping, Renaming, Transposing
- ✦ Data Preparation: Using SAS Functions — Tasks
- ✦ Data Preparation: Conditional Processing, By group Processing -Tasks
- ✦ Data Preparation: Combining Data sets — Tasks
- ✦ Data Preparation: Do-Loops, Arrays
- ✦ Statistics: ProcFreq
- ✦ Statistics: ProcTtest, ProcAnova
- ✦ Proc Npar1way

- ✦ Data Mining: Introduction
- ✦ Introduction to Regression: ProcCorr, ProcReg
- ✦ Dimensionality Reduction Techniques: Proc Factor
- ✦ Dimensionality Reduction Techniques: ProcPrincomp
- ✦ Dimensionality Reduction Techniques: ProcDiscrim
- ✦ Clustering: Introduction
- ✦ Clustering case study — Task
- ✦ Association Rules — Introduction
- ✦ Association Rules — Case study: Task
- ✦ Density Estimation: Proc KDE

- ✦ ProcReg: Case study — Task
- ✦ ProcReg: Model Diagnostics — Task
- ✦ Introduction to Logistic Regression
- ✦ Proc Logistic -Case study, — Task
- ✦ Introduction to Decision Trees
- ✦ ProcDtree, Case study — Task
- ✦ Introduction to SVM, Naive Bayes, Case study
- ✦ Introduction to Neural nets,
- ✦ Neural Nets – the Case study
- ✦ Introduction to KNN, Case study — Task

- ✦ **Introduction to Bagging and Boosting**
- ✦ **Ensemble methods Case study**
- ✦ **Reinforcement Learning**

- ✦ **Introduction to Time series**
- ✦ **Proc Arima — Case study — Task**
- ✦ **Introduction to Text Analytics**
- ✦ **Sentiment Analysis in R — Case study**
- ✦ **Introduction to Optimization**
- ✦ **Optimization — Case study**

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