ANALYTIXLABS

# Data Science with Python: Final Projects

# Data Science with Python – Final Projects

**As part of course, we have covered many concepts. Please go through the recap document which will help you to cover all the conceptual understanding related to Basic Statistics, Predictive Modeling, Machine Learning and other concepts. You can also leverage attached cheat sheets to understand the concepts and these will be very helpful at the time of attempting final projects**

**After this, you can attempt the Machine Learning Conceptual Test (It is mandatory to submit as part of certification).**

1. Key topics to recap
2. Machine Learning Conceptual Test
3. Cheat Sheets

# Data Science with Python– Final Projects

**You required to complete below project work to fulfill the certification criteria. Click on the hyper link to download the project details**

**1. Supervised Learning (Regression, Classification, Forecasting) – (Mandatory to Submit)**

1. Predicting Credit Card Spend & Identifying Key Drivers
2. Walmart Store Sales Forecasting
3. Network Intrusion Detection System

**2. Unsupervised Learning (Segmentation) – (Mandatory to Submit)**

4. Segmentation of Credit Card Customers

**3. Text Mining (NLP/NLG, Classification, Segmentation, Sentiment) – (Mandatory to Submit)**

5. Bank Reviews-Complaints Analysis
6. Analyzing online Job Postings

# Data Science with Python – Final Projects

1. Expectations from Projects - Detailed Document
2. Hints for some of the projects
3. Sample Template outputs

# Data Science with Python – Final Projects: Key Expectations

- Understand the data & perform the detailed data exploratory analysis and provide insights & create data audit report
- Perform data preparation before perform all the analysis (both exploratory and predictive modelling)
- Provide detailed insights/observations based on the exploratory analysis through data visualization
- If you build any statistical model,
  - Understand the output from the software and explain the model fit.
  - How would you determine what is the best model?
  - Apply transformations to the given variables and find out the possible best model after transformations
  - How do you ensure model works on new data
  - Generate the final equations if applicable
- Provide key factors/drivers that driving business problem? Do these factors make sense?
- Data cleaning including missing values, outliers and **multicollinearity** etc.
- Apply variable reduction techniques for reduction of variables if applicable.
- Apply multiple algorithms and compare the results and choose best algorithm and provide insights on the same.
- Describe your predictive model and interpret the variables included in the model?
- Provide detailed code with proper comments and generate outputs(results, plots and insights, tool for implementation) in the format of word/pptx/html

# Contact us

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