Modules for Workshop in Machine Learning

1. Introduction to Data Science

What is Data Science?
What does Data Science involve?
Era of Data Science
Intelligence Vs Data Science
Life cycle of Data Science
Tools of Data Science

2. Data Extraction, Wrangling, & Visualization

Data Analysis Pipeline
What is Data Extraction
Types of Data
Raw and Processed Data
Data Wrangling
Exploratory Data Analysis
Visualization of Data

3. Introduction to Machine Learning

What is Machine Learning?
Machine Learning Use-Cases
Machine Learning Process Flow
Machine Learning Categories

4. Supervised Learning Algorithm

Linear Regression, Multiple linear Regression, Logistic Regression

5. **Un-Supervised Learning Algorithm**
   K-Means Clustering, Association Rule Mining

Case Study

1.Market Basket Analysis

We live in a fast changing digital world. In today's age customers expect the sellers to tell what they might want to buy. We personally end up using Amazon's recommendations almost in all my visits to their site. This creates an interesting threat / opportunity situation for the retailers.
If you can tell the customers what they might want to buy – it not only improves your sales, but also the customer experience and ultimately life time value.

2.Credit Card Fraud detection

 We will use a variety of **machine learning algorithms** that will be able to discern fraudulent from non-fraudulent one. By the end of this machine learning project, you will learn how to implement machine learning algorithms to perform classification.