**Assignment 1**

**Batch:** 06 **Trimester:** 02

**Module Name:** Marketing and Retail Analytics  **Mentor:** Mithun

**Marks: 30**

**Objective**

**The objectives of the assignment are:**

* Equip participants to apply of Machine Learning techniques in marketing and retails domain.

**Assignment Details**

* Market Basket Analysis –
  + Apply Apriori algorithm/General Rule Induction
  + Trace Customer Journey
  + Merchandising Analysis
  + Handle Sparse data
  + Build a customer profile to identify cross sell and upsell opportunities.
  + Parallel coordinates Plot
* Develop a Marketing Mix Model
  + Create Lag Variables
  + Identify seasonal effect
  + Evaluate Carryover Effect, Current Effect and Dynamic Effect and total Effect.
* Develop A recommendation Engine
  + Collaborative Filtering.
  + IBCF Model
  + UBCF Model
  + Long Tail Problem
  + Cold Start Problem.
  + Jaccard Analysis

**Outcome**

* A Comprehensive model with acceptable outcomes which helps end user.

**Submission Guidelines**