**Assignment 1 on Session 1**

1. **Introduction:**

**Key Concepts:**

* Business Analytics
* Descriptive Analytics
* Predictive Analysis
* Prescriptive Analysis
* Cognitive Analysis
* Sources of Data
* Types of Model
* Data Science
* Skill sets of Data Science
* Data Science Pipeline
* Machine Learning
* Algorithm
* Who is Data Scientist and how to become?

1. **Objective of the Session:**

* This session will tell us basics of Data Science.
* Skills required for data science
* Machine Learning Principle and Pipeline.

1. **Perquisites:**

* Prerequisite for Data Science is Mathematics and Statistics.

1. **Problem Statement:**

Say True or False for the below statements:

• Prescriptive Analytics used to predict the future outcomes?

**True**

• Base R packages installed automatically?

**True**

2. What is Recycling of elements in a vector?

Recycling occurs when vector arithmetic is performed on multiple vectors of different sizes. R takes the shorter vector and repeats them until it becomes long enough to match the longer one.

3. Give an example of recycling of elements.

>C(1,2,,3,4,5,6) +C(1,3)

1. **Expected Output:**

Output of above code:

2 4 3 7 6 9