Assignment\_1.1

5. Problem Statement

**1. Say True or False for the below statements:**

1. **• Prescriptive Analytics used to predict the future outcomes?**

**ANS -** FALSE.

**Prescriptive** Analytics use optimization and simulation algorithms to advice on possible outcomes and answer: “What should we do?”

Whereas **Predictive** Analytics use statistical models and forecasts techniques to understand the future and answer: “What could happen?”

1. **• Base R packages installed automatically?**

**ANS - TRUE**

Base packages can be seen with “installed.packages()”.

1. **What is Recycling of elements in a vector?**

ANS - When applying an operation to two vectors that requires them to be the same length, R automatically recycles, or repeats, elements of the shorter one, until it is long enough to match the longer Vector.

**4. Give an example of recycling of elements.**

**ANS –** For example, the following vectors x and y have different lengths, and their sum is computed by recycling values of the shorter vector x.

**> x <- c(1,2,3)  
 > y<-c(10,20,30,40,50,60)**

**> x+y**

**🡺**

**[1] 11 22 33 41 52 63**

**Example - (2)**

**>x/y**

[1] 0.100 0.100 0.100 0.025 0.040 0.050