Part 3: Association Rules

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Data Importation

```r
library(arules)
```

```
## Loading required package: Matrix
```

```
##
## Attaching package: 'arules'
```

```
## The following objects are masked from 'package:base':
##
##     abbreviate, write
```

```r
Transactions<- read.csv("http://bit.ly/SupermarketDatasetII",header =T)
```

```r
class(Transactions)
```

```
## [1] "data.frame"
```

```r
# Previewing our first 5 transactions
```

```r
head(Transactions)
```

```
##                 shrimp       almonds      avocado    vegetables.mix green.grapes
## 1             burgers    meatballs         eggs
## 2             chutney
## 3              turkey      avocado
## 4      mineral water          milk energy bar whole wheat rice      green tea
## 5     low fat yogurt
## 6 whole wheat pasta french fries
##    whole.weat.flour yams cottage.cheese energy.drink tomato.juice low.fat.yogurt
## 1
## 2
## 3
## 4
## 5
## 6
##    green.tea honey salad mineral.water salmon antioxydant.juice frozen.smoothie
## 1
## 2
## 3
## 4
## 5
## 6
##    spinach olive.oil
```

```
## 1                NA
## 2                NA
## 3                NA
## 4                NA
## 5                NA
## 6                NA
```

```r
# Generating a summary of the dataset
# ---
# This would give us some information such as the most purchased items,
# distribution of the item sets (no. of items purchased in each transaction), etc.
# ---
#
summary(Transactions)
```

```
##     shrimp            almonds            avocado          vegetables.mix
##  Length:7500       Length:7500       Length:7500       Length:7500
##  Class :character  Class :character  Class :character  Class :character
##  Mode  :character  Mode  :character  Mode  :character  Mode  :character
##  green.grapes      whole.weat.flour      yams          cottage.cheese
##  Length:7500       Length:7500       Length:7500       Length:7500
##  Class :character  Class :character  Class :character  Class :character
##  Mode  :character  Mode  :character  Mode  :character  Mode  :character
##  energy.drink      tomato.juice      low.fat.yogurt      green.tea
##  Length:7500       Length:7500       Length:7500       Length:7500
##  Class :character  Class :character  Class :character  Class :character
##  Mode  :character  Mode  :character  Mode  :character  Mode  :character
##     honey             salad          mineral.water        salmon
##  Length:7500       Length:7500       Length:7500       Length:7500
##  Class :character  Class :character  Class :character  Class :character
##  Mode  :character  Mode  :character  Mode  :character  Mode  :character
##  antioxydant.juice frozen.smoothie      spinach          olive.oil
##  Length:7500       Length:7500       Length:7500       Mode:logical
##  Class :character  Class :character  Class :character  NA's:7500
##  Mode  :character  Mode  :character  Mode  :character
```