Lab-9

Association Rule Mining

**Note**: the solution of today’s lab also given in R. You can explore it and understand the ARM. However, you are also advised to explore and the carry out the same or similar experiments using other data science programing languages such as Python.

**Association rule mining on “Titanic dataset”**

**1. Dataset**

A.

(it is R compatible only- It has been pre-processed and vertical dataset compatible to apply Ariory)

<https://drive.google.com/file/d/1dGEBw_pZM4Y6NDezyJ3bKLeo6WBlbtdi/view?usp=sharing>

Download it and load in R-environment

> load("C:/Users/Dr. Vivek Tiwari/Downloads/titanic.raw.rdata")

> View(titanic.raw)

> titanic.raw

Class Sex Age Survived

1 3rd Male Child No

2 3rd Male Child No

3 3rd Male Child No

B. You can directly load dataset from R-repository as:

install.packages("datasets.load")

There are so many other ways to load the data set. It will load in R environment all dataset. Our ineterst on Titanic only.

> View(Titanic)

> Titanic

, , Age = Child, Survived = No

Sex

Class Male Female

1st 0 0

2nd 0 0

3rd 35 17

Crew 0 0

, , Age = Adult, Survived = No

**Note:** This Titanic dataset is horizontal and not suitable for Apriory. Through the pre-processing technique, we have to convert it into vertical dataset where each row will represent each person. This dataset is ready available in option A.

2. Apply the Apriory with different values of confidence and inspect the rules.

3. Try to interpret and understand the rules