**A logo of a university

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**KOD / KURSUS:** STQD6414 PERLOMBONGAN DATA

**NAMA PENSYARAH:** PROF. MADYA DR. NURULKAMAL MASSERAN

**LATIHAN:** PERLOMBONGAN ATURAN SEKUTUAN

**AHLI KUMPULAN:**

1. ‘AISHAH BINTI ZULKIFLI P132840

2. NUR AZLIN BINTI RUSNAN P132834

3. NUR ANIS AFIQAH BINTI MOHD KHAIRUL ANUAR P132838

4. MOHD KHAIRIL ABDUL KARIM P133931

5. SURAYA ADNIN BINTI JOHARI P137383

6. NUR HASANAH BINTI AFFENDY P131626

**Latihan**

Daripada data Titanic.raw, jalankan perlombongan aturan sekutuan mengikut arahan berikut:

1. Dapatkan deskriptif statistik bagi data.

load("C:/Users/Nur Elyna/OneDrive/Documents/Azlin-UKM MSc Data Science/Data Mining/Notes/Ch7 Perlombongan Aturan Sekutuan/titanic.raw.rdata")

str(titanic.raw)

head(titanic.raw, 10)

summary(titanic.raw)

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1. Tentukan aturan sekutuan yang memenuhi nilai ambang minimum supp=0.1, conf=0.6.

library(arules)

library(arulesViz)

Aturan.T1 <- apriori(titanic.raw, parameter=list(supp=0.1, conf=0.6))

inspect(Aturan.T1)

A computer screen shot of a program

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1. Plotkan aturan sekutuan yg diperoleh dalam ii) menggunakan plot-plot yang sesuai.

plot(Aturan.T1, method="graph")

plot(Aturan.T1, method="paracoord", control=list(reorder=T))

A diagram of a person's relationship

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A graph with lines and numbers

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1. Dapatkan aturan sekutuan yang menunjukkan ciri-ciri individu yang terselamat dari tragedi titanic (rhs: p/ubah survival).

Aturan.T2 <- apriori(titanic.raw, parameter=list(supp=0.1, conf=0.6),

appearance = list(default="lhs", rhs= 'Survived=Yes'),

control=list(verbose=F))

inspect(Aturan.T2)

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1. Dapatkan aturan sekutuan bagi orang yang terselamat daripada kelas 1, 2 & 3 (rhs ialah “Survived=Yes” dan lhs mengandungi info Class=1st, 2nd & 3rd;Age=Child & Adult

Aturan.T3<-apriori(titanic.raw, parameter= list(supp=0.01, conf=0.6),

appearance=list(lhs=c("Class=1st", "Class=2nd","Class=3rd", "Age=Child", "Age=Adult"),

rhs='Survived=Yes'),control=list(verbose=F))

inspect(Aturan.T3)

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