

Experiment-1.4

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Date of Performance:09-03-2023
Subject Code: 20CSP-376

1. Aim:

Demonstration of FP Growth algorithm on Mushroom data.

2. Code:

```
getwd() library("arules")

//creating library

data("Mushroom")

//creating dataset

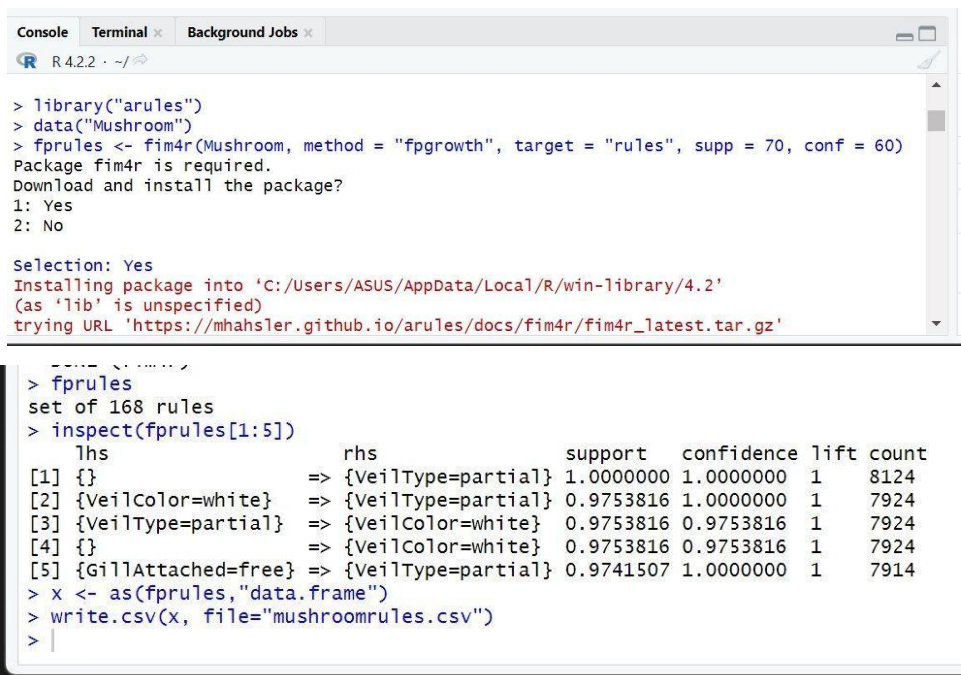
fprules <- fim4r(Mushroom, method = "fpgrowth", target = "rules", supp = 70, conf = 60)fprules

inspect(fprules[1:5])

x <- as(fprules,"data.frame") write.csv(x,

file="mushroomrules.csv")
```

3. Output:



```
R 4.2.2 ~ /

> library("arules")
> data("Mushroom")
> fprules <- fim4r(Mushroom, method = "fpgrowth", target = "rules", supp = 70, conf = 60)
Package fim4r is required.
Download and install the package?
1: Yes
2: No

Selection: Yes
Installing package into 'C:/Users/ASUS/AppData/Local/R/win-library/4.2'
(as 'lib' is unspecified)
trying URL 'https://mhahsler.github.io/arules/docs/fim4r/fim4r_latest.tar.gz'

> fprules
set of 168 rules
> inspect(fprules[1:5])
  lhs                                rhs      support  confidence lift count
[1] {}                                => {VeilType=partial} 1.0000000 1.0000000  1   8124
[2] {VeilColor=white}                 => {VeilType=partial} 0.9753816 1.0000000  1   7924
[3] {VeilType=partial}                 => {VeilColor=white} 0.9753816 0.9753816  1   7924
[4] {}                                => {VeilColor=white} 0.9753816 0.9753816  1   7924
[5] {GillAttached=free}                 => {VeilType=partial} 0.9741507 1.0000000  1   7914
> x <- as(fprules,"data.frame")
> write.csv(x, file="mushroomrules.csv")
> |
```

mushroomrules - Excel

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A1

	A	B	C	D	E	F	G
1		rules	support	confidence	lift	count	
2	1	{ } => {Veil}	1	1	1	8124	
3	2	{VeilColor=	0.975382	1	1	7924	
4	3	{VeilType=	0.975382	0.975382	1	7924	
5	4	{ } => {VeilC	0.975382	0.975382	1	7924	
6	5	{GillAttach	0.974151	1	1	7914	
7	6	{VeilType=	0.974151	0.974151	1	7914	
8	7	{GillAttach	0.973166	1	1	7906	
9	8	{GillAttach	0.973166	0.998989	1.024203	7906	
10	9	{VeilType=	0.973166	0.997728	1.024203	7906	
11	10	{GillAttach	0.973166	0.998989	1.024203	7906	
12	11	{VeilColor=	0.973166	0.997728	1.024203	7906	
13	12	{ } => {GillA	0.974151	0.974151	1	7914	
14	13	{RingNum=	0.921713	1	1	7488	
15	14	{VeilType=	0.921713	0.921713	1	7488	
16	15	{VeilColor=	0.897095	1	1	7288	
17	16	{VeilType=	0.897095	0.973291	0.997856	7288	
18	17	{VeilType=	0.897095	0.919738	0.997856	7288	
19	18	{RingNum=	0.897095	0.973291	0.997856	7288	
20	19	{VeilColor=	0.897095	0.919738	0.997856	7288	

mushroomrules

Ready 100%