



### Experiment1.4

**Student Name:** Himanshu

**UID:** 20BCS7944

**Branch:** CSE

**Section:** 905/A

**Semester:** 6

**Date of Performance:** 22/03/2023

**Subject Name:** Data Mining Lab

**Subject Code:** 20CSP-376

**1) Aim:**

Demonstration of FP Growth algorithm on supermarket.

**2) Objective:**

Overcoming the disadvantages of apriori algorithm using fp-growth algorithm.

**3) Code:**

```
library(arules)
```

```
setwd("/home/heefe/Documents/DMClassWork/")
```

```
data("Mushroom")
```

```
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 = "FP.csv", row.names = FALSE)
```

## 4) Output:

```
Console Terminal x Background Jobs x
R 4.2.3 · ~/Documents/DMClassWork/
> library(arules)
> setwd("/home/heefe/Documents/DMClassWork/")
> data("Mushroom")
> fprules <- fim4r(Mushroom, method = "fpgrowth", target = "rules", supp = 70, conf = 60)
> 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 = "FP.csv", row.names = FALSE)
> |
```

## CSV file created-

```
Console Terminal x Background Jobs x
Terminal 1 | /home/heefe/Documents/DMClassWork
[heefe@fedora Documents]$ cd DMClassWork
[heefe@fedora DMClassWork]$ ls
class_exp1.R exp1.R exp4.R explclass3.R FP.csv students1.arff super_sleepers1.arff
[heefe@fedora DMClassWork]$
```