Experiment1.3

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Branch: CSE
Section/Group: 20BCS_DM-601- B
Semester: 6th
Date of Performance: 28/02/23
Subject Name: Data Mining
Subject Code: 20CSP-376

1. **Aim:** Demonstration of association rule mining using Apriori algorithm on supermarket data.

2. **Objective:** We will learn about association rule mining and Apriori algorithm.

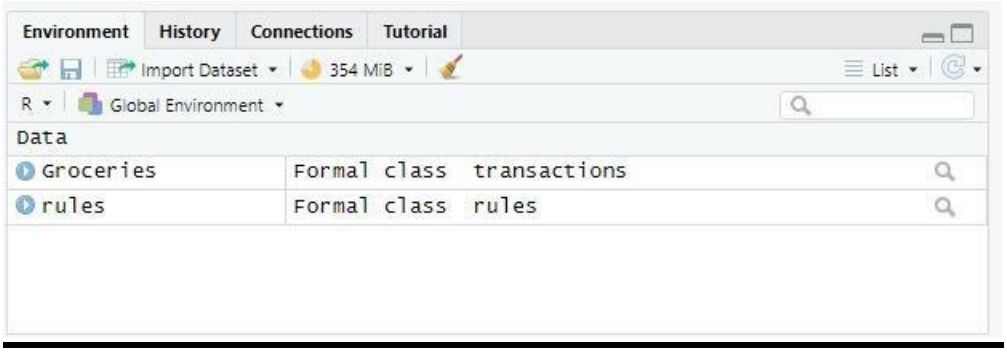
3. **Apparatus/Simulator used:**
   - R Studio
   - R4.2.2

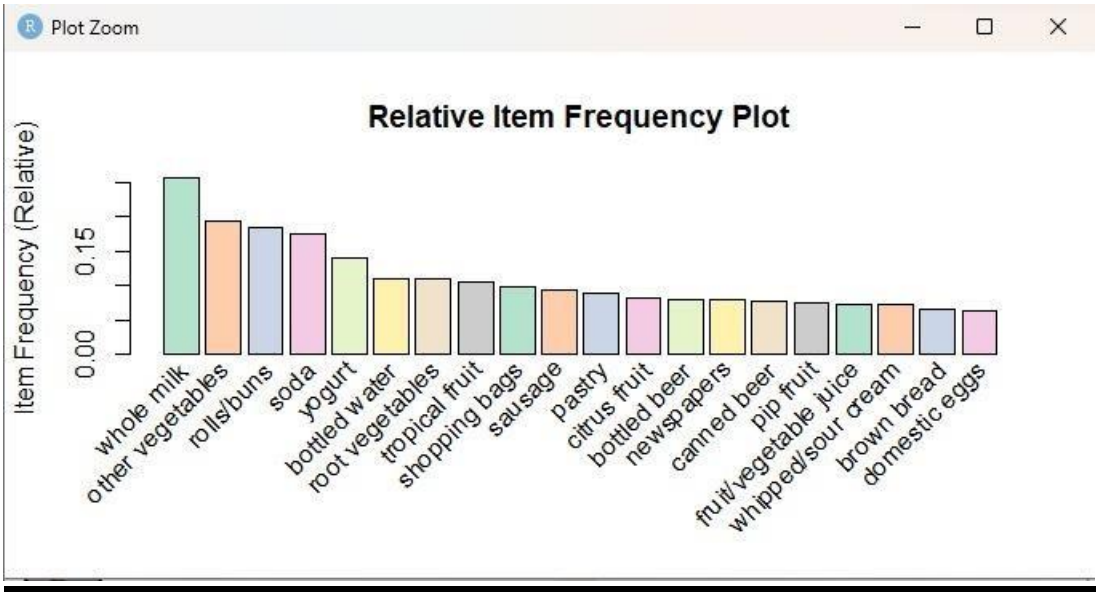
4. **Code and Output:**

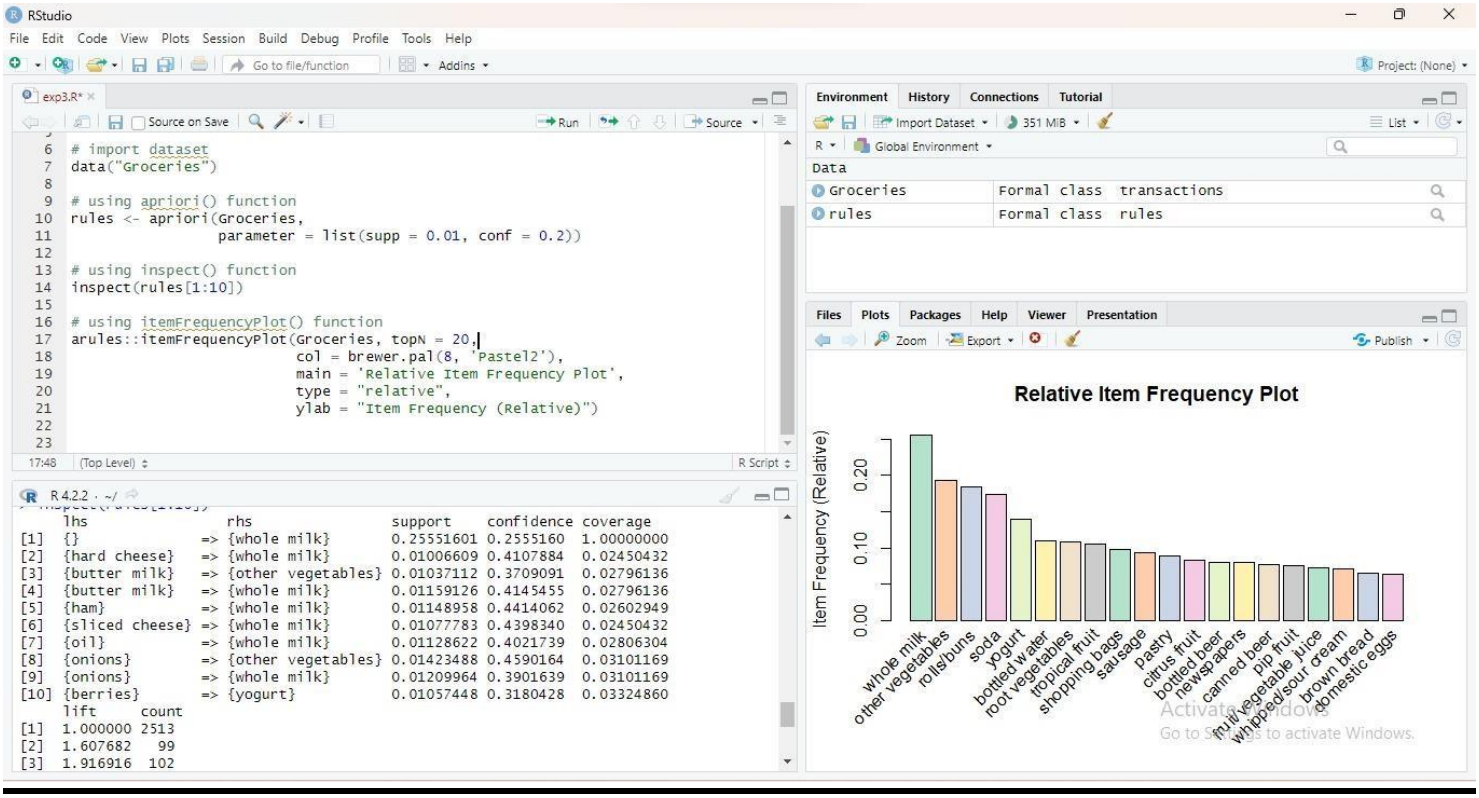
```
# Loading Libraries
library(arules) library(arulesViz)
library(RColorBrewer)

# import dataset
data("Groceries")

# using apriori() function rules<-
apriori(Groceries,
parameter = list(supp = 0.01, conf = 0.2))

# using inspect() function inspect(rules[1:10])
```

```
# using itemFrequencyPlot() function arules::itemFrequencyPlot(Groceries,
topN = 20,
col = brewer.pal(8, 'Pastel2'), main =
'Relative Item Frequency Plot', type =
"relative",
ylab = "Item Frequency (Relative)")
```

5. OutPut-







6. Learning Outcomes-

1. We learn about association rule mining
2. We learn about apriori algorithm.
3. We learn to use association rule mining with apriori algorithm in R.

Evaluation Grid :

s.no	**Parameters**	**Marks Obtained**	**Maximum Marks**
1.	**Student Performance (Conduct of experiment) Objectives/Outcomes.**		**12**
2.	**Viva Voce**		**10**
3.	**Submission of Worksheet (Record)**		**8**
	Total		**30**