

CS 634 Data Mining Midterm Project

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Py_AprioriModule

This is the implementation in Python of Apriori Algorithm.

Requirements:

- Window 10
- Python 3 with libraries itertools

Setup:

Command prompt: Python main.py

Running:

Input: Choose from the list of datasets displayed.

Example: Choose 1 you will select amazon dataset.

For your own dataset choose 6 and enter filename

Output: After choosing amazon dataset with support = 20 ; confidence=40

```
PRINTING ASSOCIATION RULES

Java: The Complete Reference  =====>  Java For Dummies | with confidence: 1.000
Java For Dummies, A Beginner's Guide  =====>  Java: The Complete Reference | with confidence: 1.000
Java: The Complete Reference, A Beginner's Guide  =====>  Java For Dummies | with confidence: 1.000
Java: The Complete Reference  =====>  A Beginner's Guide | with confidence: 0.889
Java: The Complete Reference  =====>  Java For Dummies, A Beginner's Guide | with confidence: 0.889
Java For Dummies, Java: The Complete Reference  =====>  A Beginner's Guide | with confidence: 0.889
Java For Dummies  =====>  Android Programming: The Big Nerd Ranch | with confidence: 0.750
Java For Dummies  =====>  Java: The Complete Reference | with confidence: 0.750
A Beginner's Guide  =====>  Java: The Complete Reference | with confidence: 0.727
A Beginner's Guide  =====>  Java For Dummies | with confidence: 0.727
A Beginner's Guide  =====>  Java For Dummies, Java: The Complete Reference | with confidence: 0.727
Android Programming: The Big Nerd Ranch  =====>  Java For Dummies | with confidence: 0.692
Java For Dummies  =====>  A Beginner's Guide | with confidence: 0.667
Java For Dummies  =====>  Java: The Complete Reference, A Beginner's Guide | with confidence: 0.667
```

PRINTING SUPPORT VALUES

```
Head First Java 2nd Edition ==> 0.4
Java: The Complete Reference, A Beginner's Guide ==> 0.4
Java For Dummies, A Beginner's Guide ==> 0.4
Java For Dummies, Java: The Complete Reference, A Beginner's Guide ==> 0.4
Java: The Complete Reference ==> 0.45
Java For Dummies, Android Programming: The Big Nerd Ranch ==> 0.45
Java For Dummies, Java: The Complete Reference ==> 0.45
A Beginner's Guide ==> 0.55
Java For Dummies ==> 0.6
Android Programming: The Big Nerd Ranch ==> 0.65
```

Output: After choosing bestbuy dataset with support = 50 ; confidence=50

PRINTING ASSOCIATION RULES

```
Microsoft Office ==> Flash Drive | with confidence: 1.000
Printer ==> Flash Drive | with confidence: 1.000
Lab Top Case ==> Anti-Virus | with confidence: 0.857
Anti-Virus ==> Lab Top Case | with confidence: 0.857
Flash Drive ==> Microsoft Office | with confidence: 0.846
Lab Top ==> Lab Top Case | with confidence: 0.833
Lab Top ==> Anti-Virus | with confidence: 0.833
Flash Drive ==> Anti-Virus | with confidence: 0.769
Flash Drive ==> Printer | with confidence: 0.769
Anti-Virus ==> Flash Drive | with confidence: 0.714
Lab Top Case ==> Lab Top | with confidence: 0.714
Anti-Virus ==> Lab Top | with confidence: 0.714
```

PRINTING SUPPORT VALUES

Printer ==> 0.5
Flash Drive, Anti-Virus ==> 0.5
Lab Top Case, Lab Top ==> 0.5
Lab Top, Anti-Virus ==> 0.5
Flash Drive, Printer ==> 0.5
Speakers ==> 0.55
Microsoft Office ==> 0.55
Flash Drive, Microsoft Office ==> 0.55
Lab Top ==> 0.6
Lab Top Case, Anti-Virus ==> 0.6
Flash Drive ==> 0.65
Anti-Virus ==> 0.7
Lab Top Case ==> 0.7