Read Me file:

The Association Rule Generation and Aprioiri Algorithm have been implemented in jupyter notebook where all the functionalities of frequent itemsets , Rule generation and Template Rule Generation are written in separate definitions.

Steps to run the code:

1. Run all the definitions having the functionalities frequent itemset generation, Confidence Rule Generation and Template Rule Generation.
2. Run the final cell in the notebook which will prompt to enter the file name
3. Enter the file name

```
Enter the file name association-rule-test-data
```

4. Then Enter the Support threshold percentage, For example : 50,70 etc. This will output all the frequent itemsets of that support threshold.

```
Enter the Support Percentage Threshold :  50
```

5. In next step, confidence threshold percentage should be entered . This will output all the rules satisfying the confidence threshold.

```
Enter the Confidence Percentage Threshold :  70
```

6. The next step consists of choosing one of the 3 templates.
7. Enter the template number

```
Please enter the template choice to continue or EXIT to break 3
```

8. Then enter the respective template input.

    The input format for template 1 is : RULE|HEAD|BODY;NONE|ANY|NUMBER;item1,item2...
    For Example : RULE;ANY;G59_Up,G10_Down
    The conditions should be separated by a semi colon (;) and the items list separated by a comma (,).

```
Please enter the inputs in the following format:  RULE|HEAD|BODY;ANY|NONE|1;item1,item2..
An Example Input is :
RULE;NONE;G59_Up,G10_Down,G98_Up  RULE;NONE;G59_Up,G10_Down
```

The input format for template 2 is : RULE|HEAD|BODY;length
For Example : HEAD;3
The conditions should be separated by a semi colon (;).

```
Please enter the inputs in the following format:  RULE|HEAD|BODY;length
An Example Input is :
RULE;2 HEAD;2
```

The input format for template 3 is : Template_choice1OperatorTemplate_choice2|
RULE|HEAD|BODY;NONE|ANY|NUMBER;item1,item2…
For Example : 1or2|RULE;ANY;G59_Up,G10_Down|BODY;3
The conditions should be separated by a semi colon (|) , the template input should be
separated by semi colon (;)and the items list separated by a comma (,).

```
Please enter the inputs in the following format: template_choice_1,Operator,template_choice_2|template_choice_1_input|templa
te_choice_2_input
An Example Input is :
1and2|RULE;NONE;G59_Up,G10_Down|HEAD;2 1or2|RULE;NONE;G59_Up|HEAD;2
```