EXP2

CSV Reader   Normalizer   CSV Writer

Node 1   Node 2   Node 3

⚠ File Table - 3:1 - CSV Reader

File   Edit   Hilite   Navigation   View

Table "default" - Rows: 4   Spec - Columns: 2   Propertie

Row ID	S Subjects	I Marks
Row0	Java	8
Row1	Cpp	10
Row2	Dsa	15
Row3	IPR	20

⚠ Normalized table - 3:2 - Normalizer

File   Edit   Hilite   Navigation   View

Table "default" - Rows: 4   Spec - Columns: 2   Properties   Flow Variables

Row ID	S Subjects	D Marks
Row0	Java	0
Row1	Cpp	0.167
Row2	Dsa	0.583
Row3	IPR	1

EXP3

Row ID	Nos	Age	apple_...	potat...	sushi	midwest
Row0	1	32	no	yes	yes	yes
Row1	2	25	yes	yes	no	yes
Row2	3	33	yes	yes	no	yes
Row3	4	26	no	no	yes	no
Row4	5	30	yes	yes	yes	yes
Row5	6	25	yes	no	no	yes
Row6	7	42	yes	yes	no	yes
Row7	8	38	yes	yes	no	yes
Row8	9	36	yes	yes	no	no
Row9	10	29	yes	no	yes	no

Quality Ta

Table "Entropy Scores" - Rows: 3 | Spec - Columns: 4 | Properties | Flow Variab

Row ID	I Size	D Entropy	D Norma...	D Quality
yes	8	0.811	0.811	?
no	2	1	1	?
Overall	10	0.849	0.849	0.151

EXP5:

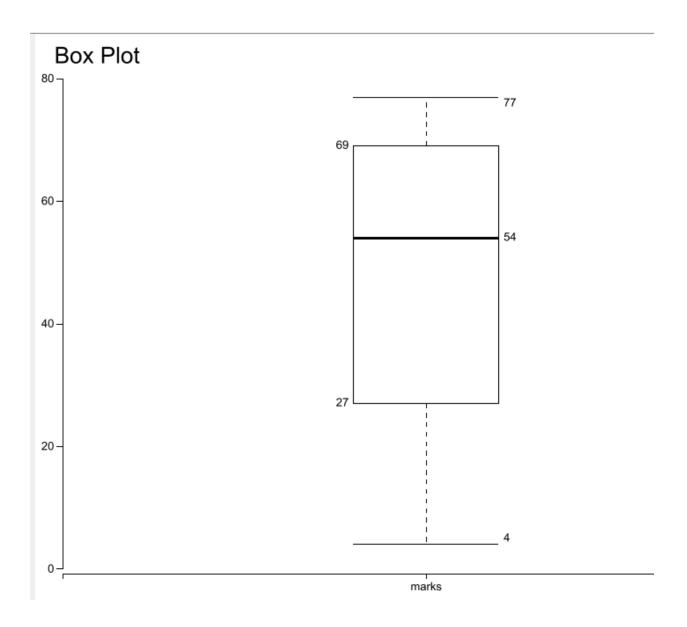**CSV Reader**

Box Plot

Node 1

Node 2
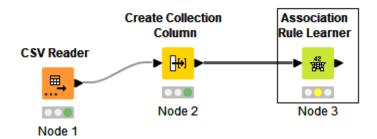
File Table - 3:1 - CSV Reader

File Edit Hilite Navigation View
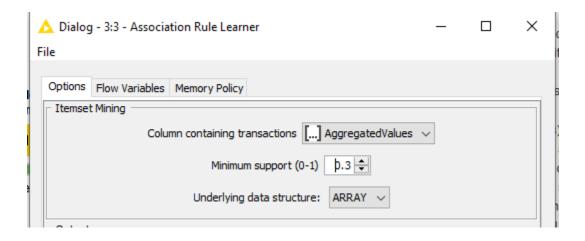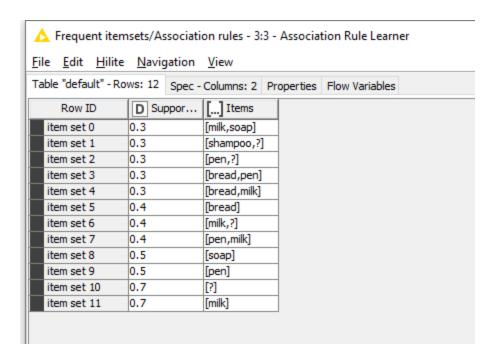
| Table "default" - Rows: 9 | Spec - Column: 1 | P |

Row ID	marks
Row0	54
Row1	4
Row2	45
Row3	69
Row4	62
Row5	16
Row6	27
Row7	77
Row8	72

Box Plot

EXP6:

Frequent itemsets/Association rules - 3:3 - Association Rule Learner

File Edit Hilite Navigation View

Table "default" - Rows: 12 | Spec - Columns: 2 | Properties | Flow Variables

Row ID	D Suppor...	[...] Items
item set 0	0.3	[milk,soap]
item set 1	0.3	[shampoo,?]
item set 2	0.3	[pen,?]
item set 3	0.3	[bread,pen]
item set 4	0.3	[bread,milk]
item set 5	0.4	[bread]
item set 6	0.4	[milk,?]
item set 7	0.4	[pen,milk]
item set 8	0.5	[soap]
item set 9	0.5	[pen]
item set 10	0.7	[?]
item set 11	0.7	[milk]

EXP7 same as above except change association rule learner module last col

Frequent itemsets/Association rules - 3:3 - Association Rule Learner

File Edit Hilite Navigation View

Table "default" - Rows: 7 | Spec - Columns: 6 | Properties | Flow Variables

Row ID	D Support	D Confide...	D Lift	? Conseq...	S implies	[...] Items
rule0	0.3	0.6	0.857	milk	<---	[soap]
rule1	0.3	1	1.429	?	<---	[shampoo]
rule2	0.3	0.6	0.857	?	<---	[pen]
rule3	0.3	0.75	1.5	pen	<---	[bread]
rule4	0.3	0.6	1.5	bread	<---	[pen]
rule5	0.3	0.75	1.071	milk	<---	[bread]
rule6	0.4	0.8	1.143	milk	<---	[pen]

Exp9 distance and cluster

CSV Reader

Node 1

Distance Matrix Calculate

Node 2

k-Means

Node 3

Dialog - 3:2 - Distance Matrix Calculate

File

Distance Calculate | Flow Variables | Memory Policy

Distance Selection:

| Euclidean |
| Manhattan |
| Distance Vector |
| Tanimoto |
| OldTanimoto (deprecated) |
| Cosine |
| Bitvector Cosine |
| Dice |

Exclude

Filter

○ Enforce exclusion

○ Enforce inclusion

Append Column Name   Distance

Chunk Size   1,000

OK   Apply   Cancel

File Table - 3:1 - CSV Reader

File   Edit   Hilite   Navigation   View

Table "default" - Rows: 2 | Spec - Columns: 3 | Properties | Flow Variables

Row ID	0	56	15
Row0	56	0	62
Row1	15	62	0

Labeled input - 3:3 - k-Means

File   Edit   Hilite   Navigation   View

Table "default" - Rows: 3 | Spec - Columns: 4 | Properties | Flow Variables

Row ID	x	y	Distance	Cluster
Row0	53	34	0 []	cluster_1
Row1	35	87	1 [55.97320787662612]	cluster_0
Row2	68	34	2 [15.0, 62.433965115151864]	cluster_1

EXP10: Agglomerative

CSV Reader — Node 1

Missing Value — Node 2

Hierarchical Clustering — Node 3

File Edit Hilite Navigation View

Row ID	S x	I A	I B	I C	I D	I E
Row0	A	0	?	?	?	?
Row1	B	13	0	?	?	?
Row2	C	5	2	0	?	?
Row3	D	20	65	45	0	?
Row4	E	17	40	26	29	0

Table "default" - Rows: 5 | **Spec - Columns: 6** | **Properties** | **Flow Variables**

Dendrogram/Distance View - 3:3 - Hierarchical Clustering

File HiLite

Dendrogram | **Distance**

Default Settings | **Appearance**

Mouse Mode | Selection ▼ | Fit to size | Background Color | ☐ Use anti-aliasing

Exp11:

Decision Tree Learner

CSV Reader

Node 4

Node 5

File Edit Hilite Navigation View

Table "default" - Rows: 14 | Spec - Columns: 4 | Properties

Row ID	minority	income	marks	schola...
Row0	yes	rich	53	no
Row1	no	rich	67	no
Row2	no	poor	80	yes
Row3	yes	poor	48	yes
Row4	yes	rich	72	yes
Row5	no	poor	64	yes
Row6	yes	poor	91	yes
Row7	no	poor	88	yes
Row8	no	rich	56	no
Row9	no	rich	63	no
Row10	yes	rich	93	yes
Row11	no	rich	87	no
Row12	yes	poor	58	yes
Row13	no	poor	71	yes

File HiLite Tree

```
              yes (9/14)
        ▼ Table:
        Category        %    n
        no            35.7    5
        yes           64.3    9
        Total        100.0   14

                income
                  ⊖

      = rich                      = poor

      no (5/7)                    yes (7/7)
  ▼ Table:                    ▼ Table:
  Category     %    n         Category      %    n
  no         71.4   5         no          0.0    0
  yes        28.6   2         yes       100.0    7
  Total      50.0   7         Total      50.0    7

        ⊕
```

EXP12 Bayes

Partitioning

Naive Bayes Learner

Node 4

Node 5

CSV Reader

Naive Bayes Predictor

Scorer

Node 1

Node 6

Node 7

File Table - 3:1 - CSV Reader

File Edit Hilite Navigation View

Table "default" - Rows: 15 | Spec - Columns: 3 | Properties | Flow Variables

Row ID	I No	S Outlook	S Play
Row0	0	rainy	yes
Row1	1	sunny	yes
Row2	2	overcast	yes
Row3	3	overcast	yes
Row4	4	sunny	no
Row5	5	rainy	yes
Row6	6	sunny	yes
Row7	7	overcast	yes
Row8	8	rainy	no
Row9	9	sunny	no
Row10	10	sunny	yes
Row11	11	rainy	no
Row12	12	overcast	yes
Row13	13	overcast	yes
Row14	?	?	?

The classified data - 3:6 - Naive Bayes Predictor

File Edit Hilite Navigation View

Table "default" - Rows: 5 | Spec - Columns: 4 | Properties | Flow Variables

Row ID	I No	S Outlook	S Play	S Predic...
Row0	0	rainy	yes	yes
Row2	2	overcast	yes	yes
Row8	8	rainy	no	no
Row13	13	overcast	yes	yes
Row14	?	?	?	yes