Login pattern

=== Run information ===

Scheme: weka.clusterers.SimpleKMeans -init 0 -max-candidates 100 -periodic-pruning 10000 -min-density 2.0 -t1 -1.25 -t2 -1.0 -N 5 -A "weka.core.EuclideanDistance -R first-last" -I 500 -num-slots 1 -S 8

Relation: loginpattern

Instances: 19

Attributes: 9

User

Machine

Date

Logintime

Logouttime

Avg#ofuserprocess

Maxuserprocesses

Keyboardchar

Cpuusage

Test mode: evaluate on training data

=== Clustering model (full training set) ===

kMeans

======

Number of iterations: 2

Within cluster sum of squared errors: 25.000000000000004

Initial starting points (random):

Cluster 0: U11,MM,Weekdays,8,18,22,70,12345,12098

Cluster 1: U17,M19,Weekdays,M,18,22,70,12345,12098

Cluster 2: U05,M05,Weekdays,8,18,22,70,12345,12098

Cluster 3: U01,M01,Weekdays,8,18,22,70,12345,12098

Cluster 4: U13,MM,Weekdays,M,M,22,70,12345,12098

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1 2 3 4

(19.0) (4.0) (4.0) (1.0) (1.0) (9.0)

=====================================================================================

User U01 U03 U16 U05 U01 U02

Machine MM M03 M19 M05 M01 MM

Date Weekdays Weekdays Weekdays Weekdays Weekdays Weekdays

Logintime M 8 M 8 8 M

Logouttime 18 18 18 18 18 M

Avg#ofuserprocess 22 22 22 22 22 22

Maxuserprocesses 70 70 70 70 70 70

Keyboardchar 12345 12345 12345 12345 12345 12345

Cpuusage 12098 12098 12098 12098 12098 12098

Time taken to build model (full training data) : 0.03 seconds

=== Model and evaluation on training set ===

Clustered Instances

0 4 ( 21%)

1 4 ( 21%)

2 1 ( 5%)

3 1 ( 5%)

4 9 ( 47%)

Program access

=== Run information ===

Scheme: weka.clusterers.SimpleKMeans -init 0 -max-candidates 100 -periodic-pruning 10000 -min-density 2.0 -t1 -1.25 -t2 -1.0 -N 5 -A "weka.core.EuclideanDistance -R first-last" -I 500 -num-slots 1 -S 8

Relation: Pogramaccess

Instances: 19

Attributes: 6

User

Machine

Date

Program

Executiontime

Printer

Test mode: evaluate on training data

=== Clustering model (full training set) ===

kMeans

======

Number of iterations: 2

Within cluster sum of squared errors: 37.63275065104166

Initial starting points (random):

Cluster 0: U11,MM,Weekdays,U2,636,PR3

Cluster 1: U17,M19,Weekdays,L4,663,PR6

Cluster 2: U05,M05,Weekdays,U2,636,PR2

Cluster 3: U01,M01,Weekdays,L1,626,PR1

Cluster 4: U13,MM,Weekdays,L1U2,655,PR4

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1 2 3 4

(19.0) (4.0) (3.0) (5.0) (4.0) (3.0)

=================================================================================

User U01 U11 U17 U05 U01 U10

Machine MM MM M19 M05 M01 MM

Date Weekdays Weekdays Weekend Weekdays Weekdays Weekdays

Program U2 U2 L4 U1 U1 L1U2

Executiontime 724.6842 636 669 760 788.5 754.6667

Printer PR2 PR3 PR6 PR2 PR1 PR4

Time taken to build model (full training data) : 0 seconds

=== Model and evaluation on training set ===

Clustered Instances

0 4 ( 21%)

1 3 ( 16%)

2 5 ( 26%)

3 4 ( 21%)

4 3 ( 16%)

File access

=== Run information ===

Scheme: weka.clusterers.SimpleKMeans -init 0 -max-candidates 100 -periodic-pruning 10000 -min-density 2.0 -t1 -1.25 -t2 -1.0 -N 5 -A "weka.core.EuclideanDistance -R first-last" -I 500 -num-slots 1 -S 7

Relation: Fileaccess

Instances: 19

Attributes: 7

User

Machine

Date

File

FileR

FileW

FileRW

Test mode: evaluate on training data

=== Clustering model (full training set) ===

kMeans

======

Number of iterations: 3

Within cluster sum of squared errors: 31.58384757549878

Initial starting points (random):

Cluster 0: U08,M08,Weekdays,F2,7,0,21

Cluster 1: U03,M03,Weekdays,F5,11,0,8

Cluster 2: U10,MM,Weekdays,F2,7,0,21

Cluster 3: U01,M01,Weekdays,F1,11,0,8

Cluster 4: U11,MM,Weekdays,F3,19,0,0

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1 2 3 4

(19.0) (3.0) (3.0) (3.0) (3.0) (7.0)

=============================================================================

User U01 U05 U02 U06 U01 U11

Machine MM M05 M02 M06 M01 MM

Date Weekdays Weekdays Weekend Weekdays Weekdays Weekdays

File F2 F2 F9 F2 F1 F3

FileR 11.9474 3 11.3333 7 12.6667 17.8571

FileW 0 0 0 0 0 0

FileRW 8.3158 16 4.6667 21 9.3333 0.7143

Time taken to build model (full training data) : 0 seconds

=== Model and evaluation on training set ===

Clustered Instances

0 3 ( 16%)

1 3 ( 16%)

2 3 ( 16%)

3 3 ( 16%)

4 7 ( 37%)

Printer access

=== Run information ===

Scheme: weka.clusterers.SimpleKMeans -init 0 -max-candidates 100 -periodic-pruning 10000 -min-density 2.0 -t1 -1.25 -t2 -1.0 -N 5 -A "weka.core.EuclideanDistance -R first-last" -I 500 -num-slots 1 -S 8

Relation: Printeraccess

Instances: 19

Attributes: 5

User

Machine

Program

File

Printer

Test mode: evaluate on training data

=== Clustering model (full training set) ===

kMeans

Number of iterations: 2

Within cluster sum of squared errors: 40.0

Initial starting points (random):

Cluster 0: U11,MM,U2,F3,PR3

Cluster 1: U17,M19,L4,F8,PR6

Cluster 2: U05,M05,U2,F2,PR2

Cluster 3: U01,M01,L1,F1,PR1

Cluster 4: U13,MM,L1U2,F7,PR4

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1 2 3 4

(19.0) (5.0) (2.0) (6.0) (4.0) (2.0)

=============================================================================

User U01 U11 U17 U05 U01 U13

Machine MM MM M19 M05 M01 MM

Program U2 U2 L4 U1 U1 L1U2

File F2 F3 F8 F2 F1 F7

Printer PR2 PR3 PR6 PR2 PR1 PR4

Time taken to build model (full training data) : 0 seconds

=== Model and evaluation on training set ===

Clustered Instances

0 5 ( 26%)

1 2 ( 11%)

2 6 ( 32%)

3 4 ( 21%)

4 2 ( 11%)

Email access

=== Run information ===

Scheme: weka.clusterers.SimpleKMeans -init 0 -max-candidates 100 -periodic-pruning 10000 -min-density 2.0 -t1 -1.25 -t2 -1.0 -N 5 -A "weka.core.EuclideanDistance -R first-last" -I 500 -num-slots 1 -S 8

Relation: Emailaccess

Instances: 19

Attributes: 9

User

Machine

Date

emailprogram

Email

Received

Sent

Bytes

Attachments

Test mode: evaluate on training data

=== Clustering model (full training set) ===

kMeans

======

Number of iterations: 3

Within cluster sum of squared errors: 37.875

Initial starting points (random):

Cluster 0: U11,MM,Weekdays,E1,x,0,1,460108,10

Cluster 1: U17,M19,Weekdays,E4,b,1,0,460108,10

Cluster 2: U05,M05,Weekdays,E1,j,0,1,460108,10

Cluster 3: U01,M01,Weekdays,E1,j,0,1,460108,10

Cluster 4: U13,MM,Weekdays,E1,x,0,1,460108,10

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1 2 3 4

(19.0) (2.0) (8.0) (4.0) (1.0) (4.0)

======================================================================================

User U01 U02 U06 U03 U01 U11

Machine MM M02 MM M03 M01 MM

Date Weekdays Weekdays Weekdays Weekdays Weekdays Weekdays

emailprogram E1 E1 E1 E1 E1 E1

Email s j&m b j j x

Received 0.4211 0 1 0 0 0

Sent 0.5789 1 0 1 1 1

Bytes 450116.6842 422141 445870.375 460108 460108 460108

Attachments 10 10 10 10 10 10

Time taken to build model (full training data) : 0 seconds

=== Model and evaluation on training set ===

Clustered Instances

0 2 ( 11%)

1 8 ( 42%)

2 4 ( 21%)

3 1 ( 5%)

4 4 ( 21%)

Machine usage

=== Run information ===

Scheme: weka.clusterers.SimpleKMeans -init 0 -max-candidates 100 -periodic-pruning 10000 -min-density 2.0 -t1 -1.25 -t2 -1.0 -N 5 -A "weka.core.EuclideanDistance -R first-last" -I 500 -num-slots 1 -S 8

Relation: machineaccess

Instances: 27

Attributes: 3

Machine

User

CPUusage

Test mode: evaluate on training data

=== Clustering model (full training set) ===

kMeans

======

Number of iterations: 3

Within cluster sum of squared errors: 35.57044009207468

Initial starting points (random):

Cluster 0: M02,U02,10992

Cluster 1: M22,MM,11814

Cluster 2: M06,U06,10992

Cluster 3: M14,U14,8091

Cluster 4: M29,MM,14965

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1 2 3 4

(27.0) (2.0) (14.0) (8.0) (1.0) (2.0)

=============================================================================

Machine M01 M01 M08 M02 M14 M23

User MM U01 MM U02 U14 MM

CPUusage 11192.1111 10751.5 11073.2857 10992 8091 14815.5

Time taken to build model (full training data) : 0 seconds

=== Model and evaluation on training set ===

Clustered Instances

0 2 ( 7%)

1 14 ( 52%)

2 8 ( 30%)

3 1 ( 4%)

4 2 ( 7%)