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

kMeans

=====

Number of iterations: 5

Sum of within cluster distances: 54565.088145100686

Initial starting points (random):

Cluster 0:

 $2,2,2,1,2,1,1,1,1,2,2,2,1,4.371777,537.9983,9.412844,269.3412,2.317624,1.206863,0.000384,950.3973\\39,12.022558,0.79557,979.056641,7.722251,71.21251,1016.27789,24.839785,0.801589,0.34674,0.610\\441,0.211895,160.695969,2.899433,115.002563,0.00032,143.71315$

Cluster 1:

2,2,2,1,2,1,1,1,1,2,2,2,1,4.372097,539.803955,9.244297,259.5232,2.315574,1.200461,0.000512,1107.889,4.716739,0.804277,894.6552,7.756217,65.75237,1016.21381,25.147398,0.804153,0.384655,0.608264,0.209973,159.446289,2.931471,114.201485,0.00032,121.923866

Missing values globally replaced with mean/mode

Final cluster centroids:

Cluster#

Attribute Full Data 0 1 (14996.0) (7850.0) (7146.0)

(14996.0) (7850.0) (7146.0)						
=======	======	====	=====		====	======
P101	1	1	1			
P203	1	1	1			
P205	1	1	1			
P301	1	1	2			
P401	2	2	2			
P601	1	1	1			
MV301	1	1	1			
MV302	2	1	2			
MV304	1	1	1			
UV401	2	2	2			
MV101	1	1	1			
MV201	1	1	1			
MV303	1	1	1			
FIT101	0	0	0			
LIT101	819.6368	819.	4013	819.7938	3	
AIT202	9.2331	9.24	137 9	.1374		
AIT203	246.2189	251.	.1535	241.322	7	
FIT201	0.0005	0.00	05 0	.0005		
DPIT301	1.4982	1.2	101 1	2.5232		
FIT301	0.0006	0.00	05 1.	.7187		
LIT301	981.1587	1008	.1149	859.875	7	
AIT402	9.7411	10.53	358 9	9.4591		

```
FIT401
          0.7994 0.7993 0.7994
LIT401
          881.274 886.9649 876.1215
           7.7331 7.7287 7.7347
AIT501
AIT502
          68.9823 69.5206 67.8544
         1016.2779 1016.2779 1016.2779
AIT503
AIT504
          24.8398 24.8398 24.8398
FIT501
          0.8016 0.8017 0.8016
FIT502
          0.3469 0.3471 0.3467
FIT503
          0.6104 0.6104 0.6104
FIT504
          0.2111 0.2111 0.2113
          160.2314 160.3755 160.1673
PIT501
PIT502
          2.8834 2.8994 2.8674
PIT503
         114.7142 114.7622 114.6661
FIT601
          0.0003 0.0003 0.0003
AIT201
          143.7132 143.6491 143.8093
```

Time taken to build model (full training data): 0.35 seconds

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

Clustered Instances

- 0 7850 (52%) 1 7146 (48%)
- Class attribute: is_attack Classes to Clusters:
- 0 1 <-- assigned to cluster 6732 6338 | no 1118 808 | yes

Cluster 0 <-- no Cluster 1 <-- yes

Incorrectly clustered instances: 7456.0 49.7199 %