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LMS-activity

Case1: K=2, and split=60:40

Accuracy=0.7693452380952381

& Confusion Matrix=

[	1664	0	1	0	0	1	1	0	5	0]
[	40	1724	25	33	1	0	8	8	64	0]
[	264	0	1294	14	2	6	15	5	29	3]
[	267	3	57	1237	1	46	1	6	131	7]
[	420	3	15	0	1013	0	14	9	116	80]
[	321	5	11	69	3	899	43	5	182	5]
[	209	1	7	3	1	6	1419	0	3	0]
[	70	1	38	21	19	3	0	1438	84	42]
[	380	26	16	9	9	39	2	0	1148	0]
[	138	0	2	6	14	5	1	79	296	1089]]

Case2: K=2, and split=70:30

Accuracy= 0.7984126984126985

& Confusion Matrix=

```

[[1219    0    0    0    0    0    1    0    2    0]
 [  38 1265   13   21    0    0    3    4   42    0]
 [ 175    0 1041    9    0    2    4    3   17    2]
 [ 173    2   31  969    0   23    0    5   73    3]
 [ 286    4   17    1  774    0    5    5   80   45]
 [ 209    0    7   49    2  772   19    1  101    3]
 [ 131    3    5    1    0    5 1095    0    6    0]
 [  43    1   19   10   10    1    1 1148   68   30]
 [ 246   15   10   10    2   15    3    1  922    0]
 [ 105    1    1    3    8    5    0   57  244  855]]

```

Case3: K=2, and split=75:25

Accuracy= 0.9572380952380952

& Confusion Matrix=

```

[[1041    0    1    0    0    0    0    1    0    0]
 [   0 1169    2    0    1    0    0    1    0    0]
 [   3   13  990    1    0    0    1   14    1    0]
 [   2    5   21 1056    1    3    0    2    5    1]
 [   1   11    0    0  983    0    3    0    0    9]
 [   1    0    0   44    3  887   11    1    1    1]
 [  15    3    1    0    3    4 1007    0    0    0]
 [   0   17    7    1    8    0    0 1108    0    4]
 [   5   15    5   34    5   32    6    8  853    8]
 [   6    4    2   12   37    5    1   35    1  957]]

```

Case4: K=2, and split=80:20

Accuracy= 0.7008333333333333

& Confusion Matrix=

```

[[817  0  0  0  0  0  1  0  3  0]
 [ 28 793  8 13  2  0  4  1 43  0]
 [303  0 525  5  0  0  2  3 14  1]
 [247  3  21 552  0  6  0  5 50  2]
 [337  0  0  0 371  0  6 16 49 33]
 [225  1  0  24  2 421 15  3 64  2]
 [143  0  0  0  1  5 669  0  1  0]
 [ 43  0 14 13  0  0  0 761 31 18]
 [270 14  0  1  2  6  2  2 519  0]
 [113  0  2  2  8  1  0 124 155 459]]

```

Case5: K=2, and split=90:10

Accuracy= 0.7111904761904762

& Confusion Matrix=

```

[[433  0  0  0  0  0  1  0  0  0]
 [ 13 436  6 10  0  0  2  1  7  0]
 [151  0 237  5  0  0  1  0  9  0]
 [119  1  9 259  0 12  0  0 14  2]
 [162  0  3  1 176  0  4  6 17 16]
 [118  0  3 20  0 218  8  1 19  1]
 [ 64  0  0  0  0  1 341  0  1  0]
 [ 28  0  4  4  3  0  0 412 17  6]
 [156  4  4  1  1  3  3  1 219  0]
 [ 48  0  0  0  3  1  0  51  67 256]]

```

Case6: K=2, and split=95:5

Accuracy= 0.721

& Confusion Matrix=

```

[[2031    0    0    1    0    2    3    0    2    1]
 [  93 2104    36   46    0    0    9    7   53    1]
 [ 445    2 1612    10    1    8    7    4   27    1]
 [ 434    6   62 1494    0   62    1   17  101    5]
 [ 867    4   18    2 861    4   13   77  127   80]
 [ 487    2   13   90    2 1111   15    3  124    5]
 [ 367    3    6    1    0    4 1659    0   14    0]
 [ 124    2   65   25    8    3    0 1840   45   63]
 [ 643   43   21   15    4   67    3    2 1252    0]
 [ 263    3    4    9   15   14    0  340  303 1177]]

```

Case7: K=4, and split=60:40

Accuracy= 0.8164285714285714

& Confusion Matrix=

```

[[1659    0    0    0    0    0    1    0   12    0]
 [  11 1731    20    5    1    0   14    4  117    0]
 [ 115    0 1387    11    2    1   24    4   84    4]
 [ 112    2   26 1341    0   30    1    4  232    8]
 [ 228    0    3    1 1028    0   44    7  211  148]
 [ 229    1    6   49    0 878   35    4  336    5]
 [ 102    0    0    0    1    4 1524    0   18    0]
 [  49    1   27    7   12    1    0 1443  111   65]
 [  71    3    3    4    6   13    4    0 1525    0]
 [  87    0    0    8    4    6    1   37  287 1200]]

```

Case8: K=4, and split=70:30

Accuracy= 0.8211111111111111

& Confusion Matrix=

```

[[1212    0    0    0    0    0    1    0    8    1]
 [   9 1290    19   10    0    0    8    2   45    3]
 [  114    0 1064    9    0    0    6    2   55    3]
 [   68    2   20 1014    0   24    3    4  139    5]
 [  213    2    4    0  673    0   23    7  187  108]
 [  155    0    6   51    1  710   20    2  212    6]
 [   81    0    1    0    0    2 1139    0   23    0]
 [   38    1   25    6    2    1    1 1124   69   64]
 [   35    2    2   13    1    9    2    1 1159    0]
 [   63    0    0    5    4    4    0   36  206  961]]

```

Case9: K=4, and split=75:25

Accuracy= 0.7452380952380953

& Confusion Matrix=

```

[[1039    0    0    0    0    0    1    0    2    1]
 [   25 1013   12    0    0    0   10    2  110    1]
 [  173    0  785    8    0    0   12    6   38    1]
 [  158    2   14  758    0   13    0    2  148    1]
 [  330    0    0    0  481    0    5    6  104   81]
 [  253    0    2   19    2  464   11    0  192    6]
 [  165    0    0    0    0    1  859    0    8    0]
 [   52    0   13    4    3    0    0  959   69   45]
 [  206    0    2    1    1    3    4    1  753    0]
 [  109    0    0    2    4    1    0   38  192  714]]

```

Case10: K=4, and split=80:20

Accuracy= 0.7585714285714286

& Confusion Matrix=

```

[[816  0  0  0  0  0  1  0  4  0]
 [ 22 777  8  1  0  0  4  1 79  0]
 [163  0 645  9  0  0  4  5 27  0]
 [111  1  12 669  0  4  0  0 85  4]
 [265  0  1  0 386  0 11  9 85 55]
 [156  0  0 11  2 433 13  1 138  3]
 [114  0  0  0  1  3 695  0  6  0]
 [ 37  0  9  5  0  0  0 764 38 27]
 [180  0  0  3  0  1  3  1 627  1]
 [ 94  0  1  1  5  0  0 41 162 560]]

```

Case11: K=4, and split=90:10

Accuracy= 0.784047619047619

& Confusion Matrix=

```

[[432  0  0  0  0  0  1  0  1  0]
 [  8 438  6  0  0  0  4  2 17  0]
 [ 71  0 305  8  0  0  3  0 16  0]
 [ 54  0  2 315  0  6  2  0 35  2]
 [119  1  0  0 205  0  5  0 21 34]
 [ 94  0  0 10  1 229  7  0 45  2]
 [ 49  0  0  0  0  0 353  0  5  0]
 [ 25  0  6  1  1  0  0 410 19 12]
 [ 86  0  0  1  0  1  1  1 302  0]
 [ 46  0  0  0  0  1  0 13  62 304]]

```

Case12: K=4, and split=95:5

Accuracy= 0.7965238095238095

& Confusion Matrix=

```

[[2022    0    0    1    0    0    4    0    12    1]
 [ 38 2129    26    7    0    0   10    3   133    3]
 [ 245    1 1772    18    1    4    8    3    63    2]
 [ 199    3    44 1701    1   32    1    6   185   10]
 [ 638    2    3    2  923    0   15   13   230   227]
 [ 287    0    3   66    1 1186   23    3   270   13]
 [ 205    1    0    1    1    3 1805    0    38    0]
 [ 104    2   44    7    3    3    0 1832    80   100]
 [ 168    6    6   13    1   30    1    2 1822    1]
 [ 195    0    1    3    3    6    1   91   293 1535]]

```

Case13: K=5, and split=60:40

Accuracy= 0.8211309523809524

& Confusion Matrix=

```

[[1660    0    0    0    0    0    1    0   11    0]
 [  5 1738    22    3    1    0   14    3  117    0]
 [ 113    1 1398   10    1    0   23    5   78    3]
 [ 103    3    28 1351    0   31    2    3  228    7]
 [ 183    1    3    0 1023    0   48    8  246  158]
 [ 206    0    2   58    0  866   43    3  360    5]
 [  86    0    0    0    1    5 1546    0   11    0]
 [  49    1   30    9   11    3    0 1414  117   82]
 [  56    4    5    6    6    9    3    0 1539    1]
 [  63    0    0    8    3    5    2   36  253 1260]]

```

Case14: K=5, and split=70:30

Accuracy= 0.8256349206349206

& Confusion Matrix=

```

[[1204    0    0    0    0    0    1    0    16    1]
 [   7 1288    20    6    0    0    8    3    53    1]
 [  97    0 1071    9    0    0   10    4    59    3]
 [  57    2   17 1015    0   26    3    4   150    5]
 [ 190    1    3    0 686    1   18    6   189   123]
 [ 152    0    3   58    1 686   21    2   236    4]
 [  58    0    1    0    0    2 1160    0    25    0]
 [  33    1   24    9    2    0    1 1109    80    72]
 [  31    1    2    9    0    5    0    0 1175    1]
 [  55    0    0    5    2    4    0   29   175 1009]]

```

Case15: K=5, and split=75:25

Accuracy= 0.7743809523809524

& Confusion Matrix=

```

[[1035    0    0    0    0    0    1    0    6    1]
 [  30 1000   14    0    0    0    9    3   117    0]
 [ 145    1   814   11    0    0   12    6    33    1]
 [ 123    1   15 790    0   17    1    2   145    2]
 [ 280    0    2    0 517    0    9    4   112   83]
 [ 247    0    1   25    1 450   14    0   206    5]
 [ 115    0    0    0    0    1 908    0    9    0]
 [  42    0   20    5    3    0    0 959    62   54]
 [  56    0    2    2    1    1    4    1 904    0]
 [  94    0    0    2    3    1    0   31   175 754]]

```

Case16: K=5, and split=80:20

Accuracy= 0.7867857142857143

& Confusion Matrix=


```

[[817  0  0  0  0  0  0  0  4  0]
 [22 777 11  0  0  0  3  0 78  1]
 [131  0 675 10  0  0  4  4 29  0]
 [ 90  1 11 687  0  6  0  0 87  4]
 [245  0  0  0 398  1 13  9 91 55]
 [150  0  0 18  2 430 12  2 140  3]
 [ 75  0  0  0  0  2 733  0  9  0]
 [ 30  0  9  8  0  0  0 750 46 37]
 [ 59  0  0  4  0  1  2  0 749  1]
 [ 85  0  1  2  3  0  0 37 143 593]]

```

Case17: K=5, and split=90:10

Accuracy= 0.8095238095238095

& Confusion Matrix=

```

[[432  0  0  0  0  0  1  0  1  0]
 [ 10 434  4  0  0  0  5  2 20  0]
 [ 62  0 314  5  0  0  5  0 17  0]
 [ 47  1  2 323  0  7  2  0 33  1]
 [106  1  1  0 214  0  6  0 23 34]
 [ 82  0  0 13  1 229  9  0 52  2]
 [ 34  0  0  0  0  0 368  0  5  0]
 [ 23  0  6  1  0  0  0 408 21 15]
 [ 34  0  0  2  0  2  2  0 352  0]
 [ 28  0  0  0  0  0  0 13  59 326]]

```

Case18: K=5, and split=95:5

Accuracy= 0.815047619047619

& Confusion Matrix=

```

[[2021    1    0    1    0    0    4    0    13    0]
 [ 27 2135    24    3    0    0    12    7    139    2]
 [ 201    0 1818    14    1    0    10    3    67    3]
 [ 162    3    43 1746    0    31    2    11    173    11]
 [ 536    2    5    0 1003    1    20    13    259    214]
 [ 257    0    2    90    1 1174    24    3    293    8]
 [ 128    1    0    2    0    2 1890    0    31    0]
 [ 88    2    47    12    2    2    0 1836    80    106]
 [ 101    7    12    18    1    14    4    4 1886    3]
 [ 141    0    0    7    3    7    1    87    275 1607]]

```

Case19: K=6, and split=60:40

Accuracy= 0.8235119047619047

& Confusion Matrix=

```

[[1662    0    0    0    0    0    1    0    9    0]
 [ 5 1748    19    0    1    0    14    4    112    0]
 [ 113    1 1401    8    0    0    30    2    73    4]
 [ 107    3    30 1362    0    23    2    3    220    6]
 [ 169    0    3    1 1041    0    60    3    245    148]
 [ 199    0    2    70    0 876    38    2    350    6]
 [ 90    0    0    0    1    4 1536    0    18    0]
 [ 52    1    29    11    12    1    0 1416    121    73]
 [ 45    4    6    4    5    12    3    0 1550    0]
 [ 62    0    0    8    3    4    2    44    264 1243]]

```

Case20: K=6, and split=70:30

Accuracy= 0.8280952380952381

& Confusion Matrix=

```

[[1213    0    0    0    0    0    1    0    7    1]
 [   9 1293    16    3    1    0    7    3    53    1]
 [   94    0 1078    11    0    0    9    4    54    3]
 [   60    2    16 1026    0    20    3    3   145    4]
 [  184    1    6    0 691    1   18    8   189   119]
 [  158    0    3   62    0 690   21    1   223    5]
 [   71    0    1    0    0    2 1152    0    20    0]
 [   31    1   26    7    2    0    1 1121    75   67]
 [   32    2    2    8    0    4    0    1 1174    1]
 [   53    0    0    4    2    3    0   36   185  996]]

```

Case21: K=6, and split=75:25

Accuracy= 0.7916666666666666

& Confusion Matrix=

```

[[818    0    0    0    0    0    0    0    3    0]
 [  13 796    9    0    0    0    5    0   69    0]
 [ 125    0 679   11    0    0    3    6   29    0]
 [  71    1   14 705    0    2    0    0   90    3]
 [ 234    0    1    0 398    0    9    7  102   61]
 [ 152    0    0   20    1 426    8    2  145    3]
 [  79    0    0    0    0    2 729    0    9    0]
 [  31    0   12    4    0    1    0 764   40   28]
 [  55    0    0    5    0    1    2    0 752    1]
 [  88    0    1    1    3    0    0   42  146  583]]

```

Case22: K=6, and split=90:10

Accuracy= 0.8192857142857143

& Confusion Matrix=

```

[[432  0  0  0  0  0  1  0  1  0]
 [ 6 441  5  1  0  0  5  1 16  0]
 [ 57  0 319  6  0  0  5  0 16  0]
 [ 33  1  4 337  0  6  1  1 31  2]
 [ 95  1  1  0 220  0  5  0 28 35]
 [ 76  0  0 16  2 233  9  1 49  2]
 [ 38  0  0  0  0  0 363  0  6  0]
 [ 25  0  6  1  1  0  0 412 18 11]
 [ 30  0  0  1  0  1  1  0 359  0]
 [ 30  0  0  0  0  1  0 15  55 325]]

```

Case23: K=6, and split=80:20

Accuracy= 0.7916666666666666

& Confusion Matrix=

```

[[818  0  0  0  0  0  0  0  3  0]
 [ 13 796  9  0  0  0  5  0 69  0]
 [125  0 679 11  0  0  3  6 29  0]
 [ 71  1 14 705  0  2  0  0 90  3]
 [234  0  1  0 398  0  9  7 102 61]
 [152  0  0 20  1 426  8  2 145  3]
 [ 79  0  0  0  0  2 729  0  9  0]
 [ 31  0 12  4  0  1  0 764 40 28]
 [ 55  0  0  5  0  1  2  0 752  1]
 [ 88  0  1  1  3  0  0 42 146 583]]

```

Case24: K=6, and split=95:5

Accuracy= 0.8225238095238095

& Confusion Matrix=

```

[[2021    1    0    1    0    0    3    0    14    0]
 [ 21 2147    22    3    0    0    13    9   133    1]
 [ 173    0 1843    16    0    0    10    3    70    2]
 [ 146    3    45 1748    0    27    2    9   195    7]
 [ 471    2    4    0 1052    1    28    17   245   233]
 [ 257    0    3    77    0 1175    24    3   299   14]
 [ 114    1    0    1    0    3 1903    0    32    0]
 [  86    3    51   11    5    2    0 1848    76   93]
 [  79    5    9   19    0   15    3    4 1914    2]
 [ 134    0    0    9    1    4    1    94   263 1622]]

```

Case25: K=7, and split=60:40

Accuracy= 0.8245238095238095

& Confusion Matrix=

```

[[1659    0    0    0    0    0    1    0   12    0]
 [  5 1753    21    0    1    0   13    5  105    0]
 [  99    0 1408    11    1    0   26    2    82    3]
 [  93    3    25 1381    0   17    5    3   222    7]
 [ 153    0    3    1 1029    0   55    5   267   157]
 [ 197    0    1   56    0  846   41    3   392    7]
 [  74    0    0    1    1    5 1548    0    20    0]
 [  52    1   28   10    9    1    1 1403   114   97]
 [  47    3    3    3    5   10    3    0 1555    0]
 [  59    0    0    8    4    5    2   41   241 1270]]

```

Case26: K=7, and split=70:30

Accuracy= 0.8288888888888889

& Confusion Matrix=

```

[[1210    0    0    0    0    0    1    0    10    1]
 [   5 1290    15    4    1    0    9    2    59    1]
 [   84    0 1081    11    1    0   10    5    58    3]
 [   58    2   17 1020    0   18    3    2   153    6]
 [  151    1    4    1  708    1   21    5   191   134]
 [  151    0    3   61    0  664   21    1   255    7]
 [   65    0    1    0    0    1 1156    0    23    0]
 [   29    1   25    9    2    0    2 1115    78   70]
 [   31    2    2    7    0    3    0    1 1177    1]
 [   50    0    0    5    2    3    0   33   163 1023]]

```

Case27: K=7, and split=75:25

Accuracy= 0.7856190476190477

& Confusion Matrix=

```

[[1035    0    0    0    0    0    1    0    6    1]
 [   7 1018    13    1    0    0    8    2   124    0]
 [   97    1   845    11    0    0    9    6    53    1]
 [   89    0   20  797    0   15    0    2   172    1]
 [  230    0    3    0  539    0    9    7   126   93]
 [  195    0    1   26    0  453   16    1   253    4]
 [   91    0    0    0    0    1  925    0    16    0]
 [   38    0   19    7    1    0    0  960    73   47]
 [   37    0    4    3    1    3    3    1   918    1]
 [   89    0    0    1    2    0    0   31   178  759]]

```

Case28: K=7, and split=80:20

Accuracy= 0.799404761904762

& Confusion Matrix=

```

[[818  0  0  0  0  0  0  0  3  0]
 [ 7 796  9  0  0  0  5  0 75  0]
 [108  0 689 11  0  0  3  4 38  0]
 [ 61  1 13 716  0  3  0  0 88  4]
 [213  0  1  0 409  0 10  7 111 61]
 [137  0  0 17  0 425  9  2 164  3]
 [ 70  0  0  0  0  1 737  0 11  0]
 [ 29  0 14  7  0  0  0 751 45 34]
 [ 32  1  0  7  0  0  2  0 773  1]
 [ 79  0  0  1  2  0  0 34 147 601]]

```

Case29: K=7, and split=90:10

Accuracy= 0.8330952380952381

& Confusion Matrix=

```

[[432  0  0  0  0  0  1  0  1  0]
 [ 3 442  4  1  0  0  5  1 19  0]
 [ 48  0 330  4  0  0  5  0 16  0]
 [ 25  1  5 339  0  5  0  1 38  2]
 [ 85  1  0  0 226  0  7  0 30 36]
 [ 61  0  0 19  2 233  9  1 61  2]
 [ 29  0  0  0  0  0 374  0  4  0]
 [ 19  0  6  0  0  0  0 410 25 14]
 [ 18  1  0  2  0  2  0  0 369  0]
 [ 22  0  0  0  0  1  0 12  47 344]]

```

Case30: K=7, and split=95:5

Accuracy= 0.8266666666666667

& Confusion Matrix=

```

[[2022    0    0    0    0    0    3    0    15    0]
 [  18 2155    21    5    0    0    14    3   132    1]
 [ 165    0 1848    15    0    0    13    5    67    4]
 [ 131    2   44 1764    0   21    2    7   203    8]
 [ 389    2    7    0 1067    0   41   12   270   265]
 [ 228    0    3   79    0 1157   29    3   338   15]
 [ 116    0    0    1    0    6 1914    0    17    0]
 [  77    1   51   15    4    2    1 1844    74   106]
 [  71    2    7   17    1   11    3    4 1931    3]
 [ 112    0    0    9    2    3    1   78   265 1658]]

```

Case31: K=10, and split=60:40

Accuracy= 0.8299404761904762

& Confusion Matrix=

```

[[1664    0    0    0    0    0    1    0    7    0]
 [   1 1754    18    1    1    0   12    2   114    0]
 [  98    1 1422   10    0    0   29    4    65    3]
 [ 101    2   25 1372    0   17    4    3   224    8]
 [ 114    0    2    0 1045    0   65    3   275   166]
 [ 205    0    1   53    0  880   37    2   357    8]
 [  77    0    0    1    2    6 1545    0    18    0]
 [  53    0   25   11    5    1    1 1415   119   86]
 [  49    1    4    2    4   11    2    0 1556    0]
 [  57    0    0    5    1    3    4   33   237 1290]]

```

Case32: K=10, and split=70:30

Accuracy= 0.832936507936508

& Confusion Matrix=


```

[[1210 0 0 0 0 0 1 0 11 0]
 [ 1 1302 13 3 0 0 8 2 56 1]
 [ 86 0 1083 10 1 0 10 3 58 2]
 [ 52 1 19 1036 0 12 2 3 149 5]
 [ 131 1 6 0 719 0 17 4 208 131]
 [ 155 0 4 60 0 666 22 2 250 4]
 [ 76 0 1 0 0 3 1145 0 21 0]
 [ 31 1 26 6 1 0 2 1117 73 74]
 [ 25 1 2 9 0 1 0 1 1184 1]
 [ 43 0 1 4 1 2 0 31 164 1033]]

```

Case33: K=10, and split=75:25

Accuracy= 0.7973333333333333

& Confusion Matrix=

```

[[1038 0 0 0 0 0 0 0 5 0]
 [ 3 1042 14 1 0 0 7 1 105 0]
 [ 94 0 862 8 0 0 9 6 43 1]
 [ 68 1 17 820 0 8 2 2 177 1]
 [ 192 0 3 0 555 0 11 7 149 90]
 [ 171 0 2 27 0 473 17 1 253 5]
 [ 82 0 0 0 0 0 936 0 15 0]
 [ 31 0 21 6 1 0 0 960 78 48]
 [ 33 0 4 4 1 0 4 1 924 0]
 [ 75 0 0 2 1 1 0 33 186 762]]

```

Case34: K=10, and split=80:20

Accuracy= 0.8082142857142857

& Confusion Matrix=

```

[[817  0  0  0  0  0  0  0  4  0]
 [  4 811 10  1  0  0  4  0 62  0]
 [ 79  0 721  9  0  0  5  2 36  1]
 [ 48  1  16 725  0  3  1  0 88  4]
 [177  0  0  0 416  0 15  4 129 71]
 [124  0  0 27  0 423 12  2 166  3]
 [ 61  0  0  0  0  1 744  0 13  0]
 [ 28  0 16  5  0  0  0 757 43 31]
 [ 29  1  0  5  0  0  2  1 777  1]
 [ 66  0  0  2  2  1  0 33 162 598]]

```

Case35: K=10, and split=90:10

Accuracy= 0.8452380952380952

& Confusion Matrix=

```

[[431  0  0  0  0  0  1  0  2  0]
 [  2 443  5  1  0  0  5  1 18  0]
 [ 32  0 345  4  0  0  3  0 19  0]
 [ 18  1  5 352  0  5  0  0 33  2]
 [ 58  1  2  0 240  0  6  0 42 36]
 [ 56  0  0 18  1 234 12  1 63  3]
 [ 24  0  0  1  0  0 378  0  4  0]
 [ 15  0  5  2  0  0  0 408 30 14]
 [ 14  0  1  3  0  1  0  0 373  0]
 [ 18  0  0  0  1  1  0 10  50 346]]

```

Case36: K=10, and split=95:5

Accuracy= 0.8346190476190476

& Confusion Matrix=

[	[	2023		0		0		0		0		3		0		14		0]		
[		3		2156		24		3		0		1		16		3		143		0]
[		152		0		1865		12		1		0		13		5		65		4]
[		114		1		49		1775		0		18		3		7		205		10]
[		259		0		7		0		1152		0		52		11		289		283]
[		242		0		2		71		0		1136		28		2		358		13]
[		102		1		0		0		0		3		1925		0		23		0]
[		72		0		48		12		2		0		1		1847		92		101]
[		52		1		6		14		2		10		3		5		1956		1]
[		85		0		1		7		2		3		1		76		261		1692]]
