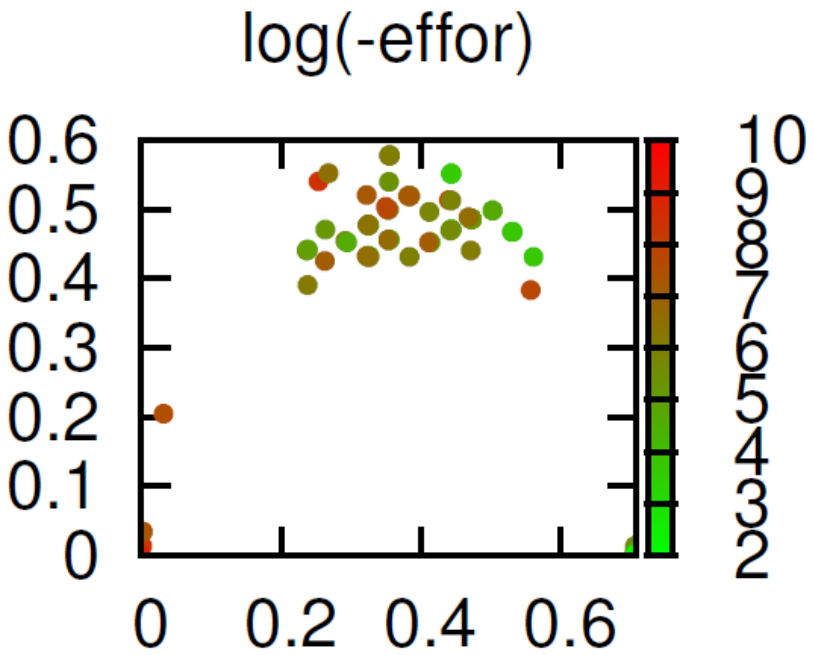
1. PROGRAM OUTPUT

A. Projection

1). The projected x, y values and the log(-effort) value are plot at followings:



The projected x, y values and the -effort are listed below

****

# $_XX	$_YY	log(-effort)	# $_XX	$_YY	log(-effort)
0.708	0.005	4.76728903546	0.708	0.005	4.76728903546
0.709	0.002	3.44041809482	0.709	0.002	3.58351893846
0.709	0.002	3.22684399452	0.709	0.001	2.12823170585
0.709	0.001	2.37954613413	0.708	0.014	5.86590132413
0.327	0.433	4.27666611902	0.473	0.486	4.27666611902
0.444	0.471	3.17805383035	0.472	0.486	5.88610403145
0.503	0.499	3.58351893846	0.355	0.540	5.37063802813
0.444	0.471	3.87120101091	0.531	0.468	5.88610403145
0.413	0.497	5.78074351579	0.414	0.453	4.09434456222
0.444	0.471	3.87120101091	0.414	0.453	4.09434456222
0.708	0.004	4.09434456222	0.708	0.014	5.70378247466
0.708	0.006	4.78749174278	0.385	0.520	4.49980967033
0.444	0.471	5.34710753072	0.385	0.520	3.87120101091
0.473	0.486	4.24849524205	0.473	0.486	5.47646355193
0.473	0.486	4.40671924726	0.473	0.486	4.12713438505
0.473	0.486	5.13579843705	0.473	0.486	5.25749537203
0.709	0.001	2.8903717579	0.709	0.002	3.91202300543
0.709	0.003	4.09434456222	0.562	0.432	3.73766961828
0.532	0.468	4.09434456222	0.472	0.441	6.09582456243
0.532	0.468	3.73766961828	0.503	0.499	4.73619844839
0.412	0.453	7.12929754893	0.558	0.384	7.78322401634
0.323	0.521	7.22110509818	0.323	0.433	6.88038408219
0.384	0.432	5.99146454711	0.350	0.504	7.78322401634
0.353	0.500	6.04025471128	0.326	0.432	5.52942908751
0.356	0.578	4.67282883446	0.237	0.441	6.3480894898
0.238	0.442	4.59309760475	0.238	0.442	5.04342511692
0.325	0.478	6.62007320653	0.441	0.514	7.65917136767
0.444	0.513	5.91350300564	0.382	0.520	7.0741168162
0.443	0.470	5.62762111369	0.709	0.001	2.12823170585
0.254	0.541	8.42507790251	0.469	0.489	6.57925121201
0.355	0.500	6.12686918411	0.352	0.501	7.80791662893
0.325	0.478	5.08759633523	0.326	0.478	5.0106352941
0.354	0.456	6.45519856334	0.325	0.478	6.78219205601
0.292	0.455	6.09582456243	0.264	0.471	5.25749537203
0.354	0.456	6.3561076607	0.325	0.478	6.06842558824
0.356	0.457	4.27666611902	0.325	0.478	5.70378247466
0.325	0.478	5.70378247466	0.326	0.478	5.48063892334
0.325	0.478	6.39692965522	0.354	0.457	6.62804137618
0.263	0.426	7.09007683578	0.295	0.453	4.5747109785
0.326	0.432	6.01371515604	0.325	0.432	6.55535689181
0.385	0.520	7.20785987143	0.238	0.391	6.1737861039
0.355	0.578	6.39526159812	0.356	0.578	6.06378520869
0.001	0.014	8.33763581076	0.002	0.035	7.48014625841
0.002	0.034	7.40604262605	0.032	0.205	7.56242147272
0.268	0.553	6.47389069635	0.000	0.000	9.01322999771
0.444	0.552	6.1737861039	0.444	0.552	2.48490664979
0.444	0.552	3.63758615973			

2). The projected new table is listed below

****

CLASS LABEL: project

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes

#5,h,h,h,vh,h,h,l,h,n,n,n,n,l,h,n,n,h,n,h,n,n,n,94.02,624.41,3761.76,24.18,0.42,0.38,0.89,0, # expected

#0.42,1.00,1.00,1.00,1.00,0.46,0.45,0.40,0.62,1.00,1.00,0.58,0.53,0.70,0.55,0.47,1.00,0.49,0.57,0.74,0.89,1.00,0.63,133.60,1135.93,6145.06,12.97,0.17,0.20,0.11,1.00, # certainty

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,25.9,117.6,808,15.3,0.708,0.005,0.954,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,24.6,117.6,767,15,0.708,0.005,0.955,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,7.7,31.2,240,10.1,0.709,0.002,0.979,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,8.2,36,256,10.4,0.709,0.002,0.978,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,9.7,25.2,302,11,0.709,0.002,0.976,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,2.2,8.4,69,6.6,0.709,0.001,0.994,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,3.5,10.8,109,7.8,0.709,0.001,0.989,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,66.6,352.8,2077,21,0.708,0.014,0.916,0, #

1,h,h,h,vh,h,h,l,h,n,n,xh,xh,l,h,h,n,h,n,h,h,n,n,7.5,72,226,13.6,0.327,0.433,0.965,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,vh,n,vh,n,h,n,n,n,20,72,566,14.4,0.473,0.486,0.960,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,h,n,vh,n,h,n,n,n,6,24,188,9.9,0.444,0.471,0.980,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,vh,n,vh,n,h,n,n,n,100,360,2832,25.2,0.472,0.486,0.897,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,n,n,vh,n,l,n,n,n,11.3,36,456,12.8,0.503,0.499,0.968,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,n,h,h,h,n,h,l,vl,n,n,n,100,215,5434,30.1,0.355,0.540,0.871,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,h,n,vh,n,h,n,n,n,20,48,626,15.1,0.444,0.471,0.959,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,n,n,n,n,vl,n,n,n,100,360,4342,28,0.531,0.468,0.878,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,xh,l,h,vh,n,vh,n,h,n,n,n,150,324,4868,32.5,0.413,0.497,0.862,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,h,n,h,n,h,n,n,n,31.5,60,986,17.6,0.414,0.453,0.947,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,h,n,vh,n,h,n,n,n,15,48,470,13.6,0.444,0.471,0.965,0, #

1,h,h,h,vh,n,n,l,h,n,n,n,xh,l,h,n,n,h,n,h,n,n,n,32.5,60,1276,20.8,0.414,0.453,0.935,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,19.7,60,614,13.9,0.708,0.004,0.962,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,66.6,300,2077,21,0.708,0.014,0.918,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,29.5,120,920,16,0.708,0.006,0.950,0, #

2,h,h,h,vh,n,h,n,n,n,n,h,n,n,n,h,n,h,n,n,n,n,n,15,90,575,15.2,0.385,0.520,0.957,0, #

2,h,h,h,vh,n,h,n,h,n,n,n,n,n,n,h,n,h,n,n,n,n,n,38,210,1553,21.3,0.444,0.471,0.925,0, #

2,h,h,h,vh,n,n,n,n,n,n,n,n,n,h,n,h,n,n,n,n,n,10,48,427,12.4,0.385,0.520,0.969,0, #

2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,15.4,70,765,14.5,0.473,0.486,0.959,0, #

2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,48.5,239,2409,21.4,0.473,0.486,0.917,0, #

2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,16.3,82,810,14.8,0.473,0.486,0.957,0, #

2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,12.8,62,636,13.6,0.473,0.486,0.963,0, #

2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,32.6,170,1619,18.7,0.473,0.486,0.935,0, #

2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,35.5,192,1763,19.3,0.473,0.486,0.931,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,5.5,18,172,9.1,0.709,0.001,0.984,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,10.4,50,324,11.2,0.709,0.002,0.974,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,14,60,437,12.4,0.709,0.003,0.969,0, #

2,h,h,h,vh,n,h,n,h,n,n,n,n,n,n,n,n,n,n,n,n,n,n,6.5,42,290,12,0.562,0.432,0.972,0, #

2,h,h,h,vh,n,n,n,h,n,n,n,n,n,n,n,n,n,n,n,n,n,n,13,60,683,14.8,0.532,0.468,0.959,0, #

2,h,h,h,vh,h,n,n,h,n,n,n,n,n,n,n,h,n,n,n,h,h,n,n,90,444,3343,26.7,0.472,0.441,0.885,0, #

2,h,h,h,vh,n,n,n,h,n,n,n,n,n,n,n,n,n,n,n,n,n,n,8,42,420,12.5,0.532,0.468,0.969,0, #

2,h,h,h,vh,n,n,n,h,n,n,h,n,n,n,n,n,n,n,n,n,n,n,16,114,887,16.4,0.503,0.499,0.950,0, #

2,h,h,h,vh,h,n,h,h,n,n,vh,h,l,h,h,n,n,l,h,n,n,l,177.9,1248,7998,31.5,0.412,0.453,0.803,0, #

6,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,h,n,n,n,n,n,n,n,302,2400,8543,38.4,0.558,0.384,0.730,0, #

5,h,h,h,vh,h,n,h,l,n,n,n,n,h,h,n,n,h,n,n,h,n,n,282.1,1368,9820,37.3,0.323,0.521,0.767,0, #

5,h,h,h,vh,h,h,h,l,n,n,n,n,n,h,n,n,h,n,n,n,n,n,284.7,973,8518,38.1,0.323,0.433,0.791,0, #

5,h,h,h,vh,n,h,h,n,n,n,n,n,l,n,h,n,h,n,h,n,n,n,79,400,2327,26.9,0.384,0.432,0.894,0, #

5,h,h,h,vh,l,l,n,n,n,n,n,n,l,h,vh,n,h,n,h,n,n,n,423,2400,18447,41.9,0.350,0.504,0.649,0, #

5,h,h,h,vh,h,n,n,n,n,n,n,n,l,h,vh,n,vh,l,h,n,n,n,190,420,5092,30.3,0.353,0.500,0.863,0, #

5,h,h,h,vh,h,n,n,h,n,n,n,n,h,n,h,n,n,h,n,h,n,n,n,47.5,252,2007,22.3,0.326,0.432,0.917,0, #

5,h,h,h,vh,l,vh,n,xh,n,n,h,h,l,n,n,n,h,n,n,h,n,n,21,107,1058,21.3,0.356,0.578,0.933,0, #

5,h,h,h,vh,l,n,h,h,n,n,vh,n,n,h,h,n,h,n,h,n,n,n,78,571.4,4815,30.5,0.237,0.441,0.858,0, #

5,h,h,h,vh,l,n,h,h,n,n,vh,n,n,h,h,n,h,n,h,n,n,n,11.4,98.8,704,15.5,0.238,0.442,0.955,0, #

5,h,h,h,vh,l,n,h,h,n,n,vh,n,n,h,h,n,h,n,h,n,n,n,19.3,155,1191,18.6,0.238,0.442,0.939,0, #

5,h,h,h,vh,l,h,n,vh,n,n,h,h,l,h,n,n,n,h,h,n,n,n,101,750,4840,32.4,0.325,0.478,0.844,0, #

5,h,h,h,vh,l,h,n,h,n,n,n,h,h,l,n,n,n,h,n,n,n,n,219,2120,11761,42.8,0.441,0.514,0.704,0, #

5,h,h,h,vh,l,h,n,h,n,n,n,h,h,l,n,n,n,h,n,n,n,n,50,370,2685,25.4,0.444,0.513,0.897,0, #

2,h,h,h,vh,h,vh,h,h,n,n,vh,vh,n,vh,vh,n,vh,n,h,h,n,l,227,1181,6293,33.8,0.382,0.520,0.811,0, #

2,h,h,h,vh,h,n,h,vh,n,n,n,n,l,h,vh,n,n,l,n,n,n,l,70,278,2950,20.2,0.443,0.470,0.916,0, #

2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,0.9,8.4,28,4.9,0.709,0.001,1.000,0, #

6,h,h,h,vh,l,vh,l,xh,n,n,xh,vh,l,h,h,n,vh,vl,h,n,n,n,980,4560,50961,96.4,0.254,0.541,0.257,0, #

6,h,h,h,vh,n,n,l,h,n,n,n,n,l,vh,vh,n,n,h,h,n,n,n,350,720,8547,35.7,0.469,0.489,0.810,0, #

5,h,h,h,vh,h,h,n,xh,n,n,h,h,l,h,n,n,n,h,h,h,n,n,70,458,2404,27.5,0.355,0.500,0.889,0, #

5,h,h,h,vh,h,h,n,xh,n,n,h,h,l,h,n,n,n,h,h,h,n,n,271,2460,9308,43.4,0.352,0.501,0.706,0, #

5,h,h,h,vh,n,n,n,n,n,n,n,n,l,h,h,n,h,n,h,n,n,n,90,162,2743,25,0.325,0.478,0.907,0, #

5,h,h,h,vh,n,n,n,n,n,n,n,n,l,h,h,n,h,n,h,n,n,n,40,150,1219,18.9,0.326,0.478,0.938,0, #

5,h,h,h,vh,n,h,n,h,n,n,h,n,h,l,h,h,n,h,n,h,n,n,n,137,636,4210,32.2,0.354,0.456,0.854,0, #

5,h,h,h,vh,n,h,n,h,n,n,h,n,h,h,h,h,n,h,n,h,n,n,n,150,882,5848,36.2,0.325,0.478,0.820,0, #

5,h,h,h,vh,n,vh,n,h,n,n,h,n,l,h,h,n,h,n,h,n,n,n,339,444,8477,45.9,0.292,0.455,0.795,0, #

5,h,h,h,vh,n,l,h,l,n,n,n,n,h,h,h,n,h,n,h,n,n,n,240,192,10313,37.1,0.264,0.471,0.819,0, #

5,h,h,h,vh,l,h,n,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,144,576,6129,28.8,0.354,0.456,0.854,0, #

5,h,h,h,vh,l,n,l,n,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,151,432,6136,26.2,0.325,0.478,0.868,0, #

5,h,h,h,vh,l,n,l,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,34,72,1555,16.2,0.356,0.457,0.948,0, #

5,h,h,h,vh,l,n,n,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,98,300,4907,24.4,0.325,0.478,0.888,0, #

5,h,h,h,vh,l,n,n,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,85,300,4256,23.2,0.325,0.478,0.896,0, #

5,h,h,h,vh,l,n,l,n,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,20,240,813,12.8,0.326,0.478,0.957,0, #

5,h,h,h,vh,l,n,l,n,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,111,600,4511,23.5,0.325,0.478,0.881,0, #

5,h,h,h,vh,l,h,vh,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,162,756,7553,32.4,0.354,0.457,0.825,0, #

5,h,h,h,vh,l,h,h,vh,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,352,1200,17597,42.9,0.263,0.426,0.707,0, #

5,h,h,h,vh,l,h,n,vh,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,165,97,7867,31.5,0.295,0.453,0.856,0, #

5,h,h,h,vh,h,h,n,vh,n,n,h,h,l,h,n,n,n,h,h,n,n,n,60,409,2004,24.9,0.326,0.432,0.902,0, #

5,h,h,h,vh,h,h,n,vh,n,n,h,h,l,h,n,n,n,h,h,n,n,n,100,703,3340,29.6,0.325,0.432,0.865,0, #

2,h,h,h,vh,n,h,vh,vh,n,n,xh,xh,h,n,n,n,n,l,l,n,n,n,32,1350,2984,33.6,0.385,0.520,0.828,0, #

2,h,h,h,vh,h,h,h,h,n,n,vh,xh,h,h,h,n,h,h,h,h,n,n,n,53,480,2227,28.8,0.238,0.391,0.885,0, #

3,h,h,h,vh,h,h,l,vh,n,n,vh,xh,l,vh,vh,n,vh,vl,vl,h,n,n,41,599,1594,23,0.355,0.578,0.903,0, #

3,h,h,h,vh,h,h,l,vh,n,n,vh,xh,l,vh,vh,n,vh,vl,vl,h,n,n,24,430,933,19.2,0.356,0.578,0.927,0, #

5,h,h,h,vh,h,vh,h,vh,n,n,xh,xh,n,h,h,n,h,h,h,h,n,n,n,165,4178.2,6266,47.3,0.001,0.014,0.658,0, #

5,h,h,h,vh,h,vh,h,vh,n,n,xh,xh,n,h,h,n,h,h,h,h,n,n,n,65,1772.5,2468,34.5,0.002,0.035,0.812,0, #

5,h,h,h,vh,h,vh,h,vh,n,n,xh,xh,n,h,h,n,h,h,h,h,n,n,n,70,1645.9,2658,35.4,0.002,0.034,0.813,0, #

5,h,h,h,vh,h,vh,h,xh,n,n,xh,xh,n,h,h,n,h,h,h,h,n,n,n,50,1924.5,2102,34.2,0.032,0.205,0.810,0, #

5,h,h,h,vh,l,vh,l,vh,n,n,vh,xh,l,h,n,n,l,vl,l,h,n,n,7.25,648,406,15.6,0.268,0.553,0.934,0, #

5,h,h,h,vh,h,vh,h,vh,n,n,xh,xh,n,h,h,n,h,h,h,h,n,n,n,233,8211,8848,53.1,0.000,0.000,0.550,0, #

2,h,h,h,vh,n,h,n,vh,n,n,vh,vh,h,n,n,n,n,l,l,n,n,n,16.3,480,1253,21.5,0.444,0.552,0.915,0, #
2,h,h,h,vh,n,h,n,vh,n,n,vh,vh,h,n,n,n,n,l,l,n,n,n,6.2,12,477,15.4,0.444,0.552,0.960,0, #
2,h,h,h,vh,n,h,n,vh,n,n,vh,vh,h,n,n,n,n,l,l,n,n,n,3,38,231,12,0.444,0.552,0.972,0, #

B. Cluster

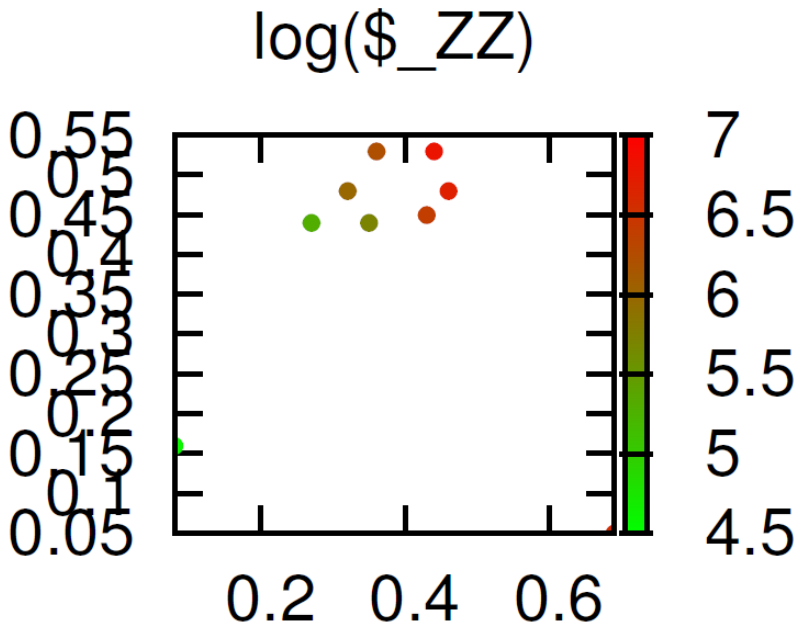
1). The generated clusters are listed as below:

1: 1 47 1 47 # 22
1: |.. 1 24 1 24 # 7
2: |.. 1 24 25 47 # 6
3: |.. 25 47 1 24 # 0
3: |.. 25 47 25 47 # 9
4: 1 47 48 93 # 25
4: |.. 1 24 48 70 # 8
5: |.. 1 24 71 93 # 3
5: |.. 25 47 48 70 # 2
5: |.. 25 47 71 93 # 12
6: 48 93 1 47 # 25
6: |.. 48 70 1 24 # 0
6: |.. 48 70 25 47 # 5
7: |.. 71 93 1 24 # 17
8: |.. 71 93 25 47 # 3
8: 48 93 48 93 # 21
8: |.. 48 70 48 70 # 12
9: |.. 48 70 71 93 # 6
10: |.. 71 93 48 70 # 1
10: |.. 71 93 71 93 # 2

2). The $_XX, $_YY and log($_ZZ) values are listed below

$_XX	$_YY	log($_ZZ)
0.08	0.16	4.60517018599
0.27	0.44	5.29831736655
0.35	0.44	5.70378247466
0.32	0.48	5.99146454711
0.36	0.53	6.21460809842
0.43	0.45	6.39692965522
0.69	0.05	6.55108033504
0.46	0.48	6.68461172767
0.44	0.53	6.80239476332

The mean values of $_XX, $_YY and log($_ZZ) are plot at followings:



The generated clusters and their data are shown below:

- Table labeled 0 is the index table store all the centroids for each cluster

****
CLASS LABEL: 0

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes

#5,h,h,h,vh,h,n,n,h,n,n,n,n,l,h,h,n,h,n,h,n,n,n,96.61,692.33,3800.65,25.69,0.38,0.40,0.88,100, # expected
#0.56,1.00,1.00,1.00,1.00,0.56,0.44,0.44,0.78,1.00,1.00,0.56,0.56,0.78,0.67,0.56,1.00,0.67,0.67,0.89,0.89,1.00,0.89,39.58,801.94,1682.08,7.26,0.16,0.17,0.06,0.11, # certainty
5,h,h,h,vh,h,vh,h,vh,n,n,xh,xh,n,h,h,h,n,h,h,h,n,n,n,141.14,2773.16,6023.71,39.46,0.08,0.16,0.75,100, #
5,h,h,h,vh,l,n,h,h,n,n,vh,n,n,h,h,n,h,n,h,n,n,n,149.57,389.87,5262.00,30.02,0.27,0.44,0.87,200, #
5,h,h,h,vh,h,h,n,h,n,n,n,h,l,h,h,n,h,h,h,n,n,n,85.67,430.67,3261.22,25.21,0.35,0.44,0.89,300, #
5,h,h,h,vh,l,n,n,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,n,128.25,452.25,5444.25,28.50,0.32,0.48,0.87,400, #
5,h,h,h,vh,h,h,n,n,n,n,h,n,l,h,vh,n,h,n,h,h,n,n,118.67,813.17,4545.75,27.64,0.36,0.53,0.86,500, #
2,h,h,h,vh,h,n,l,h,n,n,n,n,l,h,h,n,n,n,h,n,n,n,80.38,418.00,3310.60,23.36,0.43,0.45,0.90,600, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,35.50,221.06,1060.76,13.89,0.69,0.05,0.95,700, #
2,h,h,h,vh,n,n,l,h,n,n,n,n,l,vh,n,n,h,n,h,n,n,n,56.22,175.42,1751.75,18.18,0.46,0.48,0.94,800, #

2,h,h,h,vh,n,h,n,h,n,n,vh,vh,l,n,n,n,n,n,l,n,n,n,74.08,557.33,3545.83,24.93,0.44,0.53,0.89,900, #
****
CLASS LABEL: 1

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes
#5,h,h,h,vh,h,vh,h,vh,n,n,xh,xh,n,h,h,n,h,h,h,n,n,n,141.14,2773.16,6023.71,39.46,0.08,0.16,0.75,100, # expected
#0.86,1.00,1.00,1.00,1.00,0.86,0.71,1.00,0.71,1.00,1.00,0.71,0.86,0.71,1.00,1.00,1.00,1.00,1.00,1.00,1.00,1.00,0.86,115.76,2654.24,5711.72,8.58,0.12,0.18,0.12,1.00, # certainty
5,h,h,h,vh,h,vh,h,vh,n,n,xh,xh,n,h,h,n,h,h,h,n,n,n,233,8211,8848,53.1,0.000,0.000,0.550,100, #
5,h,h,h,vh,h,vh,h,vh,n,n,xh,xh,n,h,h,n,h,h,h,n,n,n,165,4178.2,6266,47.3,0.001,0.014,0.658,100, #
5,h,h,h,vh,h,vh,h,vh,n,n,xh,xh,n,h,h,n,h,h,h,n,n,n,65,1772.5,2468,34.5,0.002,0.035,0.812,100, #
5,h,h,h,vh,h,vh,h,vh,n,n,xh,xh,n,h,h,n,h,h,h,n,n,n,70,1645.9,2658,35.4,0.002,0.034,0.813,100, #
5,h,h,h,vh,h,vh,h,xh,n,n,xh,xh,n,h,h,n,h,h,h,n,n,n,50,1924.5,2102,34.2,0.032,0.205,0.810,100, #
2,h,h,h,vh,h,h,h,h,n,n,vh,xh,h,h,h,n,h,h,h,n,n,n,53,480,2227,28.8,0.238,0.391,0.885,100, #
5,h,h,h,vh,l,h,h,vh,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,352,1200,17597,42.9,0.263,0.426,0.707,100, #
****
CLASS LABEL: 2

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes
#5,h,h,h,vh,l,n,h,h,n,n,vh,n,n,h,h,n,h,h,n,n,n,149.57,389.87,5262.00,30.02,0.27,0.44,0.87,200, # expected
#1.00,1.00,1.00,1.00,1.00,0.67,0.50,0.67,0.67,1.00,1.00,0.50,0.83,0.67,1.00,0.83,1.00,1.00,0.83,0.83,1.00,1.00,0.83,138.25,346.87,3613.09,11.50,0.04,0.01,0.07,1.00, # certainty
5,h,h,h,vh,l,n,h,h,n,n,vh,n,n,h,h,n,h,h,n,n,n,78,571.4,4815,30.5,0.237,0.441,0.858,200, #
5,h,h,h,vh,l,n,h,h,n,n,vh,n,n,h,h,n,h,h,n,n,n,11.4,98.8,704,15.5,0.238,0.442,0.955,200, #
5,h,h,h,vh,l,n,h,h,n,n,vh,n,n,h,h,n,h,h,n,n,n,19.3,155,1191,18.6,0.238,0.442,0.939,200, #
5,h,h,h,vh,n,vh,n,h,n,n,h,n,l,h,h,n,h,n,h,n,n,n,339,444,8477,45.9,0.292,0.455,0.795,200, #
5,h,h,h,vh,l,h,n,vh,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,165,97,7867,31.5,0.295,0.453,0.856,200, #
5,h,h,h,vh,h,h,h,l,n,n,n,n,n,h,n,n,h,n,n,n,n,n,284.7,973,8518,38.1,0.323,0.433,0.791,200, #
****
CLASS LABEL: 3

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes
#5,h,h,h,vh,h,h,n,h,n,n,n,h,l,h,h,n,h,h,h,n,n,n,85.67,430.67,3261.22,25.21,0.35,0.44,0.89,300, # expected
#0.89,1.00,1.00,1.00,1.00,0.44,0.78,0.56,0.67,1.00,1.00,0.56,0.33,0.89,0.89,0.67,1.00,0.78,0.56,1.00,0.89,1.00,0.67,53.63,258.34,2337.20,6.71,0.02,0.01,0.05,1.00, # certainty
5,h,h,h,vh,h,h,n,vh,n,n,h,h,l,h,n,n,n,h,h,n,n,n,100,703,3340,29.6,0.325,0.432,0.865,300, #
5,h,h,h,vh,h,n,n,h,n,n,n,h,n,h,n,h,n,n,h,h,n,n,n,47.5,252,2007,22.3,0.326,0.432,0.917,300, #
5,h,h,h,vh,h,h,n,vh,n,n,h,h,l,h,n,n,n,h,h,n,n,n,60,409,2004,24.9,0.326,0.432,0.902,300, #
1,h,h,h,vh,h,h,l,h,n,n,xh,xh,l,h,h,n,h,n,h,h,n,n,7.5,72,226,13.6,0.327,0.433,0.965,300, #
5,h,h,h,vh,n,h,n,h,n,n,h,n,l,h,h,n,h,n,h,n,n,n,137,636,4210,32.2,0.354,0.456,0.854,300, #
5,h,h,h,vh,l,h,n,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,144,576,6129,28.8,0.354,0.456,0.854,300, #
5,h,h,h,vh,l,h,vh,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,162,756,7553,32.4,0.354,0.457,0.825,300, #
5,h,h,h,vh,l,n,l,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,34,72,1555,16.2,0.356,0.457,0.948,300, #
5,h,h,h,vh,n,h,h,n,n,n,n,n,l,n,h,n,h,n,h,n,n,n,79,400,2327,26.9,0.384,0.432,0.894,300, #

****
CLASS LABEL: 4

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes
#5,h,h,h,vh,l,n,n,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,n,128.25,452.25,5444.25,28.50,0.32,0.48,0.87,400, # expected
#1.00,1.00,1.00,1.00,1.00,0.62,0.62,0.62,0.38,1.00,1.00,0.75,0.50,0.75,1.00,0.88,1.00,0.88,0.62,1.00,1.00,1.00,0.50,51.78,265.63,2222.60,5.81,0.02,0.00,0.03,1.00, # certainty
5,h,h,h,vh,n,l,h,l,n,n,n,n,h,h,h,n,h,n,h,n,n,n,240,192,10313,37.1,0.264,0.471,0.819,400, #
5,h,h,h,vh,l,h,n,vh,n,n,h,h,l,h,n,n,n,h,h,n,n,n,101,750,4840,32.4,0.325,0.478,0.844,400, #
5,h,h,h,vh,n,n,n,n,n,n,n,n,l,h,h,n,h,n,h,n,n,n,90,162,2743,25,0.325,0.478,0.907,400, #
5,h,h,h,vh,n,h,n,h,n,n,h,n,h,h,h,n,h,n,h,n,n,n,150,882,5848,36.2,0.325,0.478,0.820,400, #
5,h,h,h,vh,l,n,l,n,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,151,432,6136,26.2,0.325,0.478,0.868,400, #
5,h,h,h,vh,l,n,n,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,98,300,4907,24.4,0.325,0.478,0.888,400, #
5,h,h,h,vh,l,n,n,h,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,85,300,4256,23.2,0.325,0.478,0.896,400, #
5,h,h,h,vh,l,n,l,n,n,n,n,vh,l,h,h,n,h,h,h,n,n,l,111,600,4511,23.5,0.325,0.478,0.881,400, #
****
CLASS LABEL: 5

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes
#5,h,h,h,vh,h,h,n,n,n,h,n,l,h,vh,n,h,n,h,h,h,n,n,118.67,813.17,4545.75,27.64,0.36,0.53,0.86,500, # expected
#0.42,1.00,1.00,1.00,1.00,0.50,0.50,0.58,0.33,1.00,1.00,0.33,0.42,0.58,0.42,0.42,1.00,0.42,0.42,0.42,0.50,1.00,0.92,131.41,857.69,5167.65,9.81,0.02,0.03,0.10,1.00, # certainty
5,h,h,h,vh,l,l,n,n,n,n,n,n,l,h,vh,n,h,n,h,n,n,n,423,2400,18447,41.9,0.350,0.504,0.649,500, #
5,h,h,h,vh,h,h,n,xh,n,n,h,h,l,h,n,n,n,h,h,h,n,n,271,2460,9308,43.4,0.352,0.501,0.706,500, #
5,h,h,h,vh,h,n,n,n,n,n,n,n,l,h,vh,n,vh,l,h,n,n,n,190,420,5092,30.3,0.353,0.500,0.863,500, #
1,h,h,h,vh,n,n,l,h,n,n,n,n,h,h,h,n,h,l,vl,n,n,n,100,215,5434,30.1,0.355,0.540,0.871,500, #
5,h,h,h,vh,h,h,n,xh,n,n,h,h,l,h,n,n,n,h,h,h,n,n,70,458,2404,27.5,0.355,0.500,0.889,500, #
3,h,h,h,vh,h,h,l,vh,n,n,vh,xh,l,vh,vh,n,vh,vl,vl,h,n,n,41,599,1594,23,0.355,0.578,0.903,500, #
5,h,h,h,vh,l,vh,n,xh,n,n,h,h,l,n,n,n,h,n,n,h,n,n,21,107,1058,21.3,0.356,0.578,0.933,500, #
3,h,h,h,vh,h,h,l,vh,n,n,vh,xh,l,vh,vh,n,vh,vl,vl,h,n,n,24,430,933,19.2,0.356,0.578,0.927,500, #
2,h,h,h,vh,h,vh,h,h,n,n,vh,vh,n,vh,vh,n,vh,n,h,h,n,l,227,1181,6293,33.8,0.382,0.520,0.811,500, #
2,h,h,h,vh,n,h,n,n,n,n,h,n,n,n,h,n,h,n,n,n,n,n,15,90,575,15.2,0.385,0.520,0.957,500, #
2,h,h,h,vh,n,n,n,n,n,n,n,n,n,n,h,n,h,n,n,n,n,n,10,48,427,12.4,0.385,0.520,0.969,500, #
2,h,h,h,vh,n,h,vh,vh,n,n,xh,xh,h,n,n,n,n,l,l,n,n,n,32,1350,2984,33.6,0.385,0.520,0.828,500, #
****
CLASS LABEL: 6

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes
#2,h,h,h,vh,h,n,l,h,n,n,n,n,l,h,h,n,n,n,h,n,n,n,80.38,418.00,3310.60,23.36,0.43,0.45,0.90,600, # expected
#0.60,1.00,1.00,1.00,1.00,0.60,1.00,0.40,0.80,1.00,1.00,0.80,0.60,0.80,0.80,0.60,1.00,0.60,0.60,0.80,0.80,1.00,0.60,59.98,491.30,2812.75,5.64,0.03,0.01,0.06,1.00, # certainty
2,h,h,h,vh,h,n,h,h,n,n,vh,h,l,h,h,n,n,l,h,n,n,l,177.9,1248,7998,31.5,0.412,0.453,0.803,600, #
1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,h,n,h,n,h,n,n,n,31.5,60,986,17.6,0.414,0.453,0.947,600, #
1,h,h,h,vh,n,n,l,h,n,n,n,xh,l,h,n,n,h,n,h,n,n,n,32.5,60,1276,20.8,0.414,0.453,0.935,600, #

2,h,h,h,vh,h,n,h,vh,n,n,n,n,l,h,vh,n,n,l,n,n,n,l,70,278,2950,20.2,0.443,0.470,0.916,600, #
2,h,h,h,vh,h,n,n,h,n,n,n,n,n,n,h,n,n,n,h,h,n,n,90,444,3343,26.7,0.472,0.441,0.885,600, #
****
CLASS LABEL: 7

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes
#2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,35.50,221.06,1060.76,13.89,0.69,0.05,0.95,700, # expected
#0.94,1.00,1.00,1.00,1.00,0.94,1.00,0.94,1.00,1.00,1.00,1.00,1.00,0.94,1.00,0.94,1.00,1.00,1.00,0.88,1.00,1.00,0.88,71.50,570.13,2024.66,7.71,0.05,0.13,0.06,1.00, # certainty
6,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,h,n,n,n,n,n,n,n,302,2400,8543,38.4,0.558,0.384,0.730,700, #
2,h,h,h,vh,n,h,n,h,n,n,n,n,n,n,n,n,n,n,n,n,n,n,6.5,42,290,12,0.562,0.432,0.972,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,25.9,117.6,808,15.3,0.708,0.005,0.954,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,24.6,117.6,767,15,0.708,0.005,0.955,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,66.6,352.8,2077,21,0.708,0.014,0.916,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,19.7,60,614,13.9,0.708,0.004,0.962,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,66.6,300,2077,21,0.708,0.014,0.918,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,29.5,120,920,16,0.708,0.006,0.950,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,7.7,31.2,240,10.1,0.709,0.002,0.979,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,8.2,36,256,10.4,0.709,0.002,0.978,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,9.7,25.2,302,11,0.709,0.002,0.976,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,2.2,8.4,69,6.6,0.709,0.001,0.994,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,3.5,10.8,109,7.8,0.709,0.001,0.989,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,5.5,18,172,9.1,0.709,0.001,0.984,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,10.4,50,324,11.2,0.709,0.002,0.974,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,14,60,437,12.4,0.709,0.003,0.969,700, #
2,h,h,h,vh,h,h,l,h,n,n,n,n,l,n,n,n,n,n,h,n,n,l,0.9,8.4,28,4.9,0.709,0.001,1.000,700, #
****
CLASS LABEL: 8

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes
#2,h,h,h,vh,n,n,l,h,n,n,n,n,l,vh,n,n,h,n,h,n,n,n,56.22,175.42,1751.75,18.18,0.46,0.48,0.94,800, # expected
#0.50,1.00,1.00,1.00,1.00,0.58,0.92,0.50,1.00,1.00,1.00,0.58,0.58,0.92,0.50,0.42,1.00,0.50,0.50,0.92,1.00,1.00,0.58,95.90,198.79,2290.26,6.98,0.01,0.01,0.05,1.00, # certainty
1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,h,n,vh,n,h,n,n,n,6,24,188,9.9,0.444,0.471,0.980,800, #
1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,h,n,vh,n,h,n,n,n,20,48,626,15.1,0.444,0.471,0.959,800, #
1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,h,n,vh,n,h,n,n,n,15,48,470,13.6,0.444,0.471,0.965,800, #
2,h,h,h,vh,n,h,n,h,n,n,n,n,n,n,h,n,h,n,n,n,n,n,38,210,1553,21.3,0.444,0.471,0.925,800, #
6,h,h,h,vh,n,n,l,h,n,n,n,n,l,vh,vh,n,n,h,h,n,n,n,350,720,8547,35.7,0.469,0.489,0.810,800, #
1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,vh,n,vh,n,h,n,n,n,100,360,2832,25.2,0.472,0.486,0.897,800, #
1,h,h,h,vh,n,n,l,h,n,n,n,n,l,h,vh,n,vh,n,h,n,n,n,20,72,566,14.4,0.473,0.486,0.960,800, #
2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,15.4,70,765,14.5,0.473,0.486,0.959,800, #
2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,48.5,239,2409,21.4,0.473,0.486,0.917,800, #
2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,16.3,82,810,14.8,0.473,0.486,0.957,800, #
2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,12.8,62,636,13.6,0.473,0.486,0.963,800, #
2,h,h,h,vh,h,n,vh,h,n,n,vh,vh,l,vh,n,n,h,l,h,n,n,l,32.6,170,1619,18.7,0.473,0.486,0.935,800, #
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CLASS LABEL: 9

center,prec,flex,resl,team,pmat,rely,data,cplx,ruse,docu,time,stor,pvol,acap,pcap,pcon,apex,plex,ltex,tool,site,sced,$kloc,-effort,-defects,-months,$_XX,$_YY,$_Hell,_ZZ, # notes
#2,h,h,h,vh,n,h,n,h,n,n,vh,vh,l,n,n,n,n,n,l,n,n,n,74.08,557.33,3545.83,24.93,0.44,0.53,0.89,900, # expected
#0.50,1.00,1.00,1.00,1.00,0.67,0.83,0.83,0.50,1.00,1.00,0.50,0.50,0.50,0.83,0.83,1.00,0.50,0.50,0.50,1.00,1.00,1.00,89.83,787.98,4373.58,11.37,0.01,0.02,0.10,1.00, # certainty
1,h,h,h,vh,n,n,l,h,n,n,n,xh,l,h,vh,n,vh,n,h,n,n,n,150,324,4868,32.5,0.413,0.497,0.862,900, #
5,h,h,h,vh,l,h,n,h,n,n,n,h,h,l,n,n,n,h,n,n,n,n,n,219,2120,11761,42.8,0.441,0.514,0.704,900, #
5,h,h,h,vh,l,h,n,h,n,n,n,h,h,l,n,n,n,h,n,n,n,n,n,50,370,2685,25.4,0.444,0.513,0.897,900, #
2,h,h,h,vh,n,h,n,vh,n,n,vh,vh,h,n,n,n,n,l,l,n,n,n,16.3,480,1253,21.5,0.444,0.552,0.915,900, #
2,h,h,h,vh,n,h,n,vh,n,n,vh,vh,h,n,n,n,n,l,l,n,n,n,6.2,12,477,15.4,0.444,0.552,0.960,900, #
2,h,h,h,vh,n,h,n,vh,n,n,vh,vh,h,n,n,n,n,l,l,n,n,n,3,38,231,12,0.444,0.552,0.972,900, #