K-means

K = 1

Centoid ID: 0

[-8.576208E-9, -2.0582899E-8, 1.0648791E-8, 1.1577881E-8, 2.944498E-8, -1.6866542E-8, 1.1434944E-8, 9.707434]

Centroid ID: 0

Mean: -7.266187084474388E-10 -1.4988009783451911E-9 -3.263788980751853E-9 2.6028777172517604E-9 7.357320135486734E-11 -1.7398081573870697E-9 -1.1582733259063104E-9

Standard Deviation: 1.0000000028910723 0.9999999986479469 1.000000002171349 0.9999999991064515 0.9999999989887518 0.999999994475209 1.0000000052714868

The WCSS of this run is: 6550.306958363558

K = 2

Centoid ID: 0

[0.7199749, 0.7288313, 0.7330198, 0.7575324, 0.70148194, 0.7227224, 0.7717051, 11.922681]

Centoid ID: 1

[-0.6263453, -0.6340506, -0.63769376, -0.65901923, -0.61025786, -0.6287361, -0.6713485, 7.780269]

Centroid ID: 0

Mean: 0.7199746357628866 0.7288311669329897 0.733019487185567 0.7575323027113402 0.7014820115334021 0.7227224195309279 0.771704916072165

Standard Deviation: 0.6082606837415592 0.5905594300039075 0.6981835153451953 0.8736320659897318 0.9425340063375593 0.926771654027675 0.8395356717131262

Centroid ID: 1

Mean: -0.6263456486143499 -0.6340504350224215 -0.6376940891255606 -0.6590191284331839 -0.6102578933040359 -0.6287360991681614 -0.6713486735470852

Standard Deviation: 0.8397400531379371 0.8382386600023491 0.7563448861951936 0.5221138636572179 0.545386478803369 0.5230958485093496 0.5366272537303093

The WCSS of this run is: 3402.184608263684

K = 4

Centoid ID: 0

[0.5044342, 0.5224293, 0.7165549, 0.551396, 0.20265846, 0.5141535, 0.8353767, 15.565217]

Centoid ID: 1

[-0.015325217, -0.007423505, -0.09344818, -0.24572214, -0.22867739, -0.23792575, -0.22717847, 9.350283]

Centoid ID: 2

[-1.3354397, -1.3525186, -1.2554371, -1.0931727, -1.0142465, -1.054495, -1.1418792, 6.3958335]

Centoid ID: 3

[1.0990902, 1.0931025, 1.0622532, 1.2558484, 1.3114412, 1.2213601, 1.1367722, 10.846939]

Centroid ID: 0

Mean: 0.5044343109782609 0.5224293620869566 0.7165548471956522 0.5513959870978261 0.20265841545652175 0.5141535532173913 0.8353765508043478

Standard Deviation: 0.6459245139412967 0.6166066305849668 0.6879918904653682 0.8878705990026936 0.7020953274148911 0.928299782360449 1.077040627780403

Centroid ID: 1

Mean: -0.015325227864406762 -0.007423502265536726 -0.09344817983050847 -0.24572217870677965 -0.22867736374022601 -0.23792581561299436 -0.22717852440677966

Standard Deviation: 0.4631941499540872 0.46432775410160976 0.48981074166780836 0.42126628949137757 0.4679694371145397 0.4190891091917975 0.4013554322167145

Centroid ID: 2

Mean: -1.3354398302708332 -1.3525185436458333 -1.2554376073541667 -1.0931723205208332 -1.0142462530447918 -1.0544949008333333 -1.1418790404166668

Standard Deviation: 0.6848386751514545 0.6705707177819956 0.6016857558380254 0.31014648028282216 0.3730018803288089 0.2985214964106489 0.3005839288604996

Centroid ID: 3

Mean: 1.0990899023469387 1.0931019266326532 1.0622532020816327 1.255848511020408 1.3114412917755103 1.2213603639795918 1.136772090612245

Standard Deviation: 0.3740627321328685 0.36540474264763334 0.5655844996442289 0.690116193296166 0.8097933033424379 0.8041583955756157 0.5904280179950728

The WCSS of this run is: 1735.0119407478992

K = 8

Centoid ID: 0

[-0.12436092, -0.099100515, -0.10848001, -0.28928155, -0.40035695, -0.28635573, -0.15555002, 12.428572]

Centoid ID: 1

[-0.20808752, -0.19682276, -0.2454731, -0.44444045, -0.41758707, -0.42657247, -0.41616154, 8.703297]

Centoid ID: 2

[-0.9870299, -1.001399, -0.9444676, -0.94536483, -0.8763777, -0.91123575, -0.9916228, 7.0307693]

Centoid ID: 3

[1.3653133, 1.3511654, 1.3961736, 1.8011868, 1.8732461, 1.794286, 1.5810652, 11.22449]

Centoid ID: 4

[0.6143714, 0.6310341, 0.51665074, 0.4253213, 0.41622642, 0.396029, 0.4663683, 10.712121]

Centoid ID: 5

[-2.0659766, -2.0887365, -1.9074717, -1.4030912, -1.3033258, -1.3548771, -1.4569328, 5.064516]

Centoid ID: 6

[0.7768948, 0.7581303, 1.0513014, 0.9133086, 0.45746967, 0.84016585, 1.2532961, 17.25]

Centoid ID: 7

[0.64613134, 0.63233507, 0.48649737, 0.50749195, 0.58919704, 0.47283605, 0.3995585, 8.619047]

Centroid ID: 0

Mean: -0.12436092297959184 -0.09910051630612243 -0.1084800024693878 -0.28928153710408167 -0.4003569901836735 -0.2863556665714285 -0.15555000495918364

Standard Deviation: 0.43358136182434864 0.4773677745682036 0.5562335672933535 0.4476052843374146 0.41771100166814834 0.4716420653295847 0.5126714445419325

Centroid ID: 1

Mean: -0.20808757071428569 -0.19682267692307692 -0.2454730531208791 -0.44444047004285714 -0.41758707734615386 -0.42657248452747254 -0.416161569956044

Standard Deviation: 0.39068405835853454 0.37889408997376556 0.424396716217626 0.2871283168832488 0.33321672761488896 0.31484231675837493 0.29332272738728027

Centroid ID: 2

Mean: -0.9870301000923077 -1.0013991567692309 -0.9444675000923077 -0.9453648903076923 -0.8763776783430769 -0.9112356935384616 -0.9916226873846153

Standard Deviation: 0.4811724078790908 0.44235289265797006 0.4062483925497316 0.2644204670570178 0.3130777645690999 0.2516528717645468 0.24123786939143207

Centroid ID: 3

Mean: 1.3653134557142856 1.3511654612244897 1.3961736689795918 1.801186743877551 1.8732462663265306 1.7942861379591837 1.5810647893877552

Standard Deviation: 0.2674795577436506 0.2624046858313531 0.43584543677931936 0.5416492972768674 0.7200294408338194 0.7268218236955517 0.5276136245079456

Centroid ID: 4

Mean: 0.6143716079696969 0.631034263969697 0.5166506500151515 0.4253212195469697 0.4162264088860606 0.3960290469090909 0.4663682107727273

Standard Deviation: 0.3231850759872336 0.31039632115509247 0.48328552224930127 0.3483522149946182 0.42163536856175626 0.3841453967056493 0.36064457301457414

Centroid ID: 5

Mean: -2.0659763612903226 -2.088736612903226 -1.9074717032258064 -1.4030911258064516 -1.3033255225806453 -1.3548771096774193 -1.4569326838709677

Standard Deviation: 0.42044265996542957 0.4234332742245707 0.381434612087985 0.09412208027274284 0.32239630959984295 0.09690967880254395 0.1023498932843381

Centroid ID: 6

Mean: 0.7768948836666667 0.7581303550833334 1.0513012954166667 0.9133086505833333 0.4574696558333333 0.840165888125 1.2532961154166666

Standard Deviation: 0.6467924807430252 0.6085737724317707 0.6855437510447415 0.9681216562222155 0.7414768772036058 1.0156305862472343 1.2303048639859313

Centroid ID: 7

Mean: 0.6461313071428572 0.6323350219047619 0.486497455452381 0.5074919855547619 0.5891970262857142 0.4728360556547619 0.399558503452381

Standard Deviation: 0.33722066609894263 0.3626186551270498 0.4545222713475893 0.4349165161627867 0.49065906031347806 0.4277217528848714 0.415001624850025

The WCSS of this run is: 1015.4318476471202

K = 16

Centoid ID: 0

[-0.41190436, -0.4081478, -0.49459818, -0.6210913, -0.6749344, -0.5902641, -0.54304135, 11.730769]

Centoid ID: 1

[0.35583302, 0.35483727, 0.20004188, 0.09643358, 0.1403451, 0.07546366, 0.068201326, 9.0]

Centoid ID: 2

[-0.27148712, -0.25542632, -0.30016026, -0.49355718, -0.4636027, -0.5071525, -0.43769395, 8.6]

Centoid ID: 3

[1.182711, 1.1538687, 1.1193935, 1.3872961, 1.4774506, 1.3463371, 1.1937462, 10.021739]

Centoid ID: 4

[0.35234913, 0.37792033, 0.19763143, 0.09216106, 0.07568567, 0.06545273, 0.16215941, 10.184211]

Centoid ID: 5

[-1.7355814, -1.7383406, -1.671335, -1.331539, -1.1230247, -1.2865136, -1.3723264, 5.0]

Centoid ID: 6

[1.281451, 1.2313831, 1.5485165, 1.7164567, 1.0164022, 1.4905221, 2.2072642, 18.1]

Centoid ID: 7

[0.32817706, 0.30920202, 0.1798449, 0.074658014, 0.15579918, 0.08936592, -0.01490628, 7.642857]

Centoid ID: 8

[0.42827383, 0.45091093, 0.592165, 0.35590044, 0.10727057, 0.4393767, 0.5437016, 14.115385]

Centoid ID: 9

[-2.4315023, -2.4768229, -2.218255, -1.4828614, -1.4330342, -1.4247632, -1.548163, 4.4615383]

Centoid ID: 10

[-1.5688426, -1.6081332, -1.4347745, -1.2650046, -1.1822839, -1.2210065, -1.2910466, 6.409091]

Centoid ID: 11

[0.7240612, 0.7515021, 0.69890857, 0.5684843, 0.56174403, 0.5115628, 0.6152174, 11.5]

Centoid ID: 12

[-1.0433004, -1.0618943, -0.90665066, -1.017536, -1.0164654, -0.9381594, -1.0120296, 8.925926]

Centoid ID: 13

[1.5591456, 1.5594049, 1.7850767, 2.330993, 2.393507, 2.4314988, 2.032469, 12.5]

Centoid ID: 14

[-0.78073746, -0.75538826, -0.7922646, -0.8063053, -0.72818923, -0.7917764, -0.88055956, 6.6944447]

Centoid ID: 15

[0.063215196, 0.08384354, 0.37697867, -0.05017131, -0.32018188, -0.25503048, 0.362748, 18.142857]

Centroid ID: 0

Mean: -0.4119043669230769 -0.4081478247307692 -0.49459815507692306 -0.6210913334615384 -0.6749344696153846 -0.5902640688461538 -0.5430414243461539

Standard Deviation: 0.2612155343585874 0.326473512765448 0.3753116320174747 0.20173166531403902 0.22088206709341185 0.24650035937844658 0.25596957516243046

Centroid ID: 1

Mean: 0.3558330634848485 0.35483731830303034 0.20004186775757574 0.09643359127575757 0.14034508824242425 0.07546366746969697 0.06820132230303032

Standard Deviation: 0.2331614421122727 0.25672993695873986 0.41290962213633775 0.3526423503993292 0.3938669404458497 0.3206498281797346 0.2933286795668244

Centroid ID: 2

Mean: -0.27148719695555557 -0.25542625575555555 -0.30016023064444447 -0.49355716844444447 -0.4636027615555556 -0.507152552 -0.4376939905777778

Standard Deviation: 0.21116856791091923 0.211831135070071 0.3380952940434339 0.1704182546426835 0.21439862376999128 0.18345916949681793 0.1752101163738308

Centroid ID: 3

Mean: 1.1827110391304347 1.153868486521739 1.119393438695652 1.387296101521739 1.4774504706521738 1.3463372845652173 1.1937462108695653

Standard Deviation: 0.27324176156442315 0.2813622313164984 0.3922199622916014 0.3970316546623234 0.44497119298188637 0.5173915711544855 0.46598743064928577

Centroid ID: 4

Mean: 0.3523491002105263 0.37792033515789475 0.19763141002631576 0.09216106552894736 0.07568566498631576 0.06545273513157894 0.16215944160526313

Standard Deviation: 0.30174158433269016 0.30662456851534253 0.3448555822945372 0.2895124244174066 0.3627541341142763 0.24878775656682667 0.32766035173515545

Centroid ID: 5

Mean: -1.73558125 -1.7383405299999999 -1.6713351 -1.33153899 -1.12302467 -1.28651355 -1.37232634

Standard Deviation: 0.23657014531998868 0.2492270030023947 0.24819959187996707 0.0762298772990318 0.5274980566823394 0.09426186206517399 0.06385506358185439

Centroid ID: 6

Mean: 1.281450936 1.2313831259999999 1.548516436 1.716456566 1.0164023340000001 1.4905221610000001 2.207264075

Standard Deviation: 0.5210052231623487 0.5214059300310848 0.5903457346293411 0.8185593785956222 0.6285789894596056 0.9383659010563459 1.2667654058536029

Centroid ID: 7

Mean: 0.32817706839285715 0.3092020271785714 0.17984490825 0.07465801240357141 0.15579918798214287 0.08936592214285716 -0.01490629682142857

Standard Deviation: 0.31637532070519636 0.3229342521426124 0.3492846853283029 0.29796114007009417 0.36588506233592843 0.3726959771855428 0.3435351824645811

Centroid ID: 8

Mean: 0.42827378603846156 0.45091093130769233 0.5921650036153846 0.3559004531730769 0.10727057542307693 0.4393767124230769 0.5437016019230769

Standard Deviation: 0.4939080473626056 0.46486808614189457 0.48881129650999156 0.5235472226681397 0.4846580679262755 0.6835513843212704 0.5257847001781129

Centroid ID: 9

Mean: -2.4315024923076924 -2.4768229 -2.2182549846153847 -1.4828615153846154 -1.4330342076923077 -1.4247630692307691 -1.548163023076923

Standard Deviation: 0.28383356437885526 0.23829199437729748 0.315666645610724 0.0521962022959341 0.051334688755224483 0.06356134596553666 0.05762377880298423

Centroid ID: 10

Mean: -1.5688426681818182 -1.6081334772727274 -1.434774569090909 -1.2650046772727273 -1.1822838772727273 -1.221006431818182 -1.2910465863636365

Standard Deviation: 0.359703898276442 0.33532182611036726 0.3028290983260148 0.11618358598441127 0.2486960283088745 0.11185444119966757 0.14747439054308573

Centroid ID: 11

Mean: 0.7240612937352942 0.7515021726470589 0.6989086207058823 0.568484244982353 0.5617440460882352 0.5115628327941176 0.6152172841176471

Standard Deviation: 0.2998824664039765 0.2864983825763125 0.48239871773219234 0.31310315781189746 0.4573681818308905 0.35481245354718066 0.30048877514756

Centroid ID: 12

Mean: -1.043300307037037 -1.0618942603703703 -0.9066507711111111 -1.0175362307407407 -1.0164653992592592 -0.9381594392592593 -1.0120296037037038

Standard Deviation: 0.348761727264752 0.36544672197072114 0.37238025059217494 0.1711428409363355 0.18148728936144365 0.18819405406825046 0.1743890811146989

Centroid ID: 13

Mean: 1.55914565 1.55940485625 1.7850769875 2.330993025 2.393506884375 2.43149845625 2.03246875

Standard Deviation: 0.2658237951642228 0.2503982830000556 0.3558938345675667 0.4999829905572849 0.9116075274552675 0.6508680395111899 0.3347086151574371

Centroid ID: 14

Mean: -0.7807372827777778 -0.7553881758333333 -0.7922645171111111 -0.8063051655555555 -0.7281892192305556 -0.7917763469444444 -0.8805595855555556

Standard Deviation: 0.4368593348025245 0.3076621985116211 0.3707589629536142 0.20813057042622435 0.2517997983748831 0.21511865515463646 0.19987391823791953

Centroid ID: 15

Mean: 0.06321519542857143 0.08384353742857142 0.37697866 -0.05017130942857142 -0.32018189 -0.255030495 0.3627480342857143

Standard Deviation: 0.17230279063105278 0.2158161674243641 0.4405712233403288 0.3495624906379318 0.26902916812916505 0.3495330848513375 0.7158011707835311

The WCSS of this run is: 581.4326335532559