########################CPVD######################

CPVD Model1

25 25 25 25

[['CPVD\_01.png', 0.27546127384551233, 0.8926588056295169, 0.4210062578816868],

['CPVD\_02.png', 0.1480893680480497, 0.9837628482049754, 0.25742727965336504],

['CPVD\_03.png', 0.14828022703453156, 0.9871775065657346, 0.25783241500820514],

['CPVD\_04.png', 0.262540407981273, 0.9986220472440945, 0.41577298565506027],

['CPVD\_05.png', 0.15105811312392664, 0.9789098877019995, 0.2617282621216439],

['CPVD\_06.png', 0.17049459062924213, 0.9985503426462836, 0.29125900475896066],

['CPVD\_07.png', 0.16585903394882953, 0.9604572965702757, 0.28286994522192666],

['CPVD\_08.png', 0.15067896591313987, 0.9671496198536795, 0.26073604926263366],

['CPVD\_09.png', 0.16920280096956639, 0.9989532449406838, 0.2893888837426559],

['CPVD\_11.png', 0.14942732213351273, 1.0, 0.26000308024025875],

['CPVD\_14.png', 0.21870652917927091, 0.9651848654869802, 0.3566074268265588],

['CPVD\_15.png', 0.2427573211902332, 0.9410923648841865, 0.3859561972760539],

['CPVD\_16.png', 0.24721246707638278, 0.7538324596973593, 0.3723245123965606],

['CPVD\_17.png', 0.1840874995638977, 0.999362955884695, 0.3109048238709148],

['CPVD\_18.png', 0.3188127046836825, 1.0, 0.48348443042964134],

['CPVD\_19.png', 0.2713876845475927, 0.8984495206533317, 0.41685823293869984],

['CPVD\_20.png', 0.498165209859044, 0.8589561332250203, 0.6306025095668245],

['CPVD\_21.png', 0.23374350086655113, 0.9987194536335503, 0.3788254740208762],

['CPVD\_22.png', 0.32702110239547844, 0.9986666666666667, 0.4927028548962069],

['CPVD\_23.png', 0.23781192882987057, 0.9659504520371023, 0.38166093874371426],

['CPVD\_24.png', 0.21290192723796106, 0.954835184847933, 0.3481712603714642],

['CPVD\_26.png', 0.12624783600563044, 0.9975909419417008, 0.22413125460751915],

['CPVD\_27.png', 0.15847836391955034, 0.9978226444972288, 0.2735158043290438],

['CPVD\_28.png', 0.19756913862955786, 0.989133425034388, 0.329353360745058],

['CPVD\_31.png', 0.20993343573988735, 1.0, 0.347016504443504]]

f1\_value\_ave is: 0.34920558996036144

recall\_value\_ave is: 0.9634335467138955

precision\_value\_ave is: 0.21903715013408698

recall, precision,f1 value for this model is, [0.9634335467138955, 0.21903715013408698, 0.34920558996036144]

CPVD Model2

25 25 25 25

[['CPVD\_01.png', 0.7570629436374747, 0.8680106504374286, 0.8087494628240816],

['CPVD\_02.png', 0.3029320272685155, 0.8347981528377775, 0.44454669696031773],

['CPVD\_03.png', 0.3778836136329811, 0.9416035841186466, 0.5393255282549512],

['CPVD\_04.png', 0.6058799342105263, 0.962007874015748, 0.7434986921392687],

['CPVD\_05.png', 0.39154975663626324, 0.9144070117775952, 0.548311937404881],

['CPVD\_06.png', 0.4221551306422155, 0.9584870848708487, 0.5861478607361917],

['CPVD\_07.png', 0.39360352291386774, 0.9020847343644922, 0.5480696879332826],

['CPVD\_08.png', 0.48080955419819493, 0.9179457753550423, 0.6310711955142918],

['CPVD\_09.png', 0.5928888888888889, 0.9453942777390091, 0.7287523845421886],

['CPVD\_11.png', 0.3611283048899107, 0.9665488810365136, 0.5258027519067414],

['CPVD\_14.png', 0.4885614787034557, 0.9421665947345705, 0.6434574301773635],

['CPVD\_15.png', 0.5967243386455783, 0.790177294824135, 0.679958855462666],

['CPVD\_16.png', 0.6584309877042083, 0.8306794580160222, 0.7345930553090005],

['CPVD\_17.png', 0.31356861470982417, 0.8370759675107501, 0.4562325423419325],

['CPVD\_18.png', 0.6157402429846253, 0.9881232215761475, 0.7587020291888363],

['CPVD\_19.png', 0.6082632541133455, 0.8235294117647058, 0.6997139904343018],

['CPVD\_20.png', 0.8181293802093849, 0.8060858380720282, 0.812062957759048],

['CPVD\_21.png', 0.6165820976402778, 0.9658520968946751, 0.7526721982756366],

['CPVD\_22.png', 0.6375404530744336, 0.9713939393939394, 0.7698299385406975],

['CPVD\_23.png', 0.4942411924119241, 0.9148761300927557, 0.6417768942653084],

['CPVD\_24.png', 0.3912974516231363, 0.886177381169186, 0.5428818510335998],

['CPVD\_26.png', 0.3125, 0.9942182606600819, 0.4755320497309504],

['CPVD\_27.png', 0.31276880772756116, 0.9863420427553444, 0.4749356448058019],

['CPVD\_28.png', 0.7127408845140718, 0.9425034387895461, 0.8116756241515843],

['CPVD\_31.png', 0.41281171356668955, 0.9917371630926618, 0.5829640029014699]]

f1\_value\_ave is: 0.6376506105037758

recall\_value\_ave is: 0.915289050635986

precision\_value\_ave is: 0.5070317829818942

recall, precision,f1 value for this model is, [0.915289050635986, 0.5070317829818942, 0.6376506105037758]

CPVD Model3

25 25 25 25

[['CPVD\_01.png', 0.701246628271488, 0.8571989015300118, 0.771419761501074],

['CPVD\_02.png', 0.2873198586060002, 0.9798306772908366, 0.4443431205397755],

['CPVD\_03.png', 0.28897711558192446, 0.9960967993754879, 0.4479885189070308],

['CPVD\_04.png', 0.54078727790321, 0.991486574983628, 0.6998531299777672],

['CPVD\_05.png', 0.34997057092407297, 0.8947491248541424, 0.5031427768373861],

['CPVD\_06.png', 0.4152521525215252, 0.9181494661921709, 0.5718660256923718],

['CPVD\_07.png', 0.27284179033972367, 0.9648160840758511, 0.42538758597099413],

['CPVD\_08.png', 0.35545324654707094, 0.9714559846485968, 0.5204684322073359],

['CPVD\_09.png', 0.40194082519001084, 0.9931710213776722, 0.5722781021026627],

['CPVD\_11.png', 0.2729711970211368, 0.9940688018979834, 0.4283245217308743],

['CPVD\_14.png', 0.44346317615518055, 0.9477521263669502, 0.6042100994785858],

['CPVD\_15.png', 0.3723725834797891, 0.8995244482380198, 0.5267065404519934],

['CPVD\_16.png', 0.4108587964098288, 0.9649449618966978, 0.5763265629316237],

['CPVD\_17.png', 0.26253885063075144, 0.6680919294494923, 0.37694882015019293],

['CPVD\_18.png', 0.629317980513729, 0.989041095890411, 0.7692005491065772],

['CPVD\_19.png', 0.5867273332593497, 0.8625227778902612, 0.698382819436964],

['CPVD\_20.png', 0.7724342834122269, 0.6836213896299733, 0.7253192415655592],

['CPVD\_21.png', 0.5022456050301553, 0.9891245241979336, 0.6662108022279933],

['CPVD\_22.png', 0.45767728933115004, 0.9934520155514631, 0.6266573544181051],

['CPVD\_23.png', 0.4990536704069217, 0.9598160735705717, 0.6566723813532507],

['CPVD\_24.png', 0.4738889429154916, 0.9410847880299252, 0.6303575333449836],

['CPVD\_26.png', 0.3254759746146872, 0.9975579975579976, 0.49081303778870317],

['CPVD\_27.png', 0.25603909275308867, 1.0, 0.4076928723482346],

['CPVD\_28.png', 0.4441413081497027, 0.928124275446325, 0.6007850590291799],

['CPVD\_31.png', 0.3484723891454235, 0.9937293729372937, 0.5159987991881377]]

f1\_value\_ave is: 0.5702941779314943

recall\_value\_ave is: 0.935176448515188

precision\_value\_ave is: 0.4268587175645455

recall, precision,f1 value for this model is, [0.935176448515188, 0.4268587175645455, 0.5702941779314943]

CPVD Model4

25 25 25 25

[['CPVD\_01.png', 0.42064709449577287, 0.6590338531761126, 0.5135233257762972],

['CPVD\_02.png', 0.16760594630574663, 0.7626992402800536, 0.2748193383355337],

['CPVD\_03.png', 0.21766163550349177, 0.9235285030125135, 0.3522931326083762],

['CPVD\_04.png', 0.1919215809944287, 0.8267716535433071, 0.31152719482114455],

['CPVD\_05.png', 0.17026389568777536, 0.7758148452478772, 0.2792436869550089],

['CPVD\_06.png', 0.1581922673389812, 0.8845545598313126, 0.2683867028096889],

['CPVD\_07.png', 0.2034493101379724, 0.6403496973772697, 0.3087908447821008],

['CPVD\_08.png', 0.21017613686993197, 0.6779515134127098, 0.3208755633919534],

['CPVD\_09.png', 0.20867716929232308, 0.7262735519888346, 0.3242025606509689],

['CPVD\_11.png', 0.09316846833506096, 0.5684334511189635, 0.16009649438402765],

['CPVD\_14.png', 0.04065405078832999, 0.2288879297942742, 0.06904469205560683],

['CPVD\_15.png', 0.19036644739854397, 0.6539891335430369, 0.2948937409781949],

['CPVD\_16.png', 0.16676712879244524, 0.3186628424488181, 0.21895016969035236],

['CPVD\_17.png', 0.15212591986917418, 0.7765567765567766, 0.2544128676435611],

['CPVD\_18.png', 0.15571643004565638, 0.8580972411233453, 0.2635984161974866],

['CPVD\_19.png', 0.21125244403435928, 0.9094567404426559, 0.3428631831043467],

['CPVD\_20.png', 0.4332171673169438, 0.6275724343352288, 0.5125901533451361],

['CPVD\_21.png', 0.18254676744232182, 0.7452779852737168, 0.2932624650493258],

['CPVD\_22.png', 0.21243086840273961, 0.5505454545454546, 0.3065700611844884],

['CPVD\_23.png', 0.08216326740756541, 0.8731947868967946, 0.1501940271533774],

['CPVD\_24.png', 0.07087201591511937, 0.33035876889455473, 0.11670685706681401],

['CPVD\_26.png', 0.12041931197401447, 0.618405203565406, 0.201584889424323],

['CPVD\_27.png', 0.12048388670287145, 0.4885193982581156, 0.1932952326707277],

['CPVD\_28.png', 0.23837347960887192, 0.6078404401650619, 0.3424501473760732],

['CPVD\_31.png', 0.19815866049706626, 0.5364941963407437, 0.28941824787541043]]

f1\_value\_ave is: 0.278543759813213

recall\_value\_ave is: 0.6627708080469175

precision\_value\_ave is: 0.18469245404630033

recall, precision,f1 value for this model is, [0.6627708080469175, 0.18469245404630033, 0.278543759813213]

########################CPFD######################

CPFD Model1

15 15 15 15

[['CPFD\_01.png', 0.13154928401452845, 0.919755778456171, 0.23017717395897483],

['CPFD\_02.png', 0.07929414699035583, 0.9856428105286056, 0.14677996729520232],

['CPFD\_05.png', 0.13679957800848777, 0.9973167868522556, 0.24059703185558368],

['CPFD\_06.png', 0.13679957800848777, 0.9973167868522556, 0.24059703185558368],

['CPFD\_07.png', 0.1602526026198143, 0.9980588475684512, 0.27616325102299705],

['CPFD\_10.png', 0.1513940777639408, 0.8843277091668116, 0.25852884367172074],

['CPFD\_12.png', 0.0954353449687285, 0.9852289512555391, 0.17401456708575863],

['CPFD\_13.png', 0.18165539490624955, 0.9644384424938105, 0.30572618125478496],

['CPFD\_14.png', 0.21309171597633136, 0.9655982033483055, 0.3491350434439101],

['CPFD\_15.png', 0.08747983027550349, 0.9728506787330317, 0.16052506560157637],

['CPFD\_16.png', 0.21545883586785528, 0.9794889038332213, 0.35321969648343005],

['CPFD\_17.png', 0.19791960449259252, 0.9938226209736726, 0.330099875418854],

['CPFD\_18.png', 0.14938322368421053, 0.9459674215335717, 0.25802086947386466],

['CPFD\_19.png', 0.07229025273385614, 0.9722838137472284, 0.13457474176360365],

['CPFD\_20.png', 0.10704588338165585, 0.926391382405745, 0.19191563372009632]]

f1\_value\_ave is: 0.24333833159372942

recall\_value\_ave is: 0.9658992758499118

precision\_value\_ave is: 0.14105662357950655

recall, precision,f1 value for this model is, [0.9658992758499118, 0.14105662357950655, 0.24333833159372942]

CPFD Model2

15 15 15 15

[['CPFD\_01.png', 0.4092291418749174, 0.9337112952464021, 0.5690525976441115],

['CPFD\_02.png', 0.2350611331152058, 0.9071133347835545, 0.3733704339064867],

['CPFD\_05.png', 0.3241191543882127, 0.9159818883112527, 0.47881142721740494],

['CPFD\_06.png', 0.3241191543882127, 0.9159818883112527, 0.47881142721740494],

['CPFD\_07.png', 0.39086221300377383, 0.938189619942787, 0.5518262899574239],

['CPFD\_10.png', 0.3698752228163993, 0.9492085580100887, 0.5323221041702685],

['CPFD\_12.png', 0.2711402868952103, 0.9759970457902511, 0.4243832849340079],

['CPFD\_13.png', 0.33715495545879437, 0.7317128066621652, 0.46161107572237464],

['CPFD\_14.png', 0.5674833313607133, 0.9913229889750919, 0.7217821289265183],

['CPFD\_15.png', 0.2679122664500406, 0.8738355070535001, 0.41009276590193877],

['CPFD\_16.png', 0.4415501905972046, 0.948890383322125, 0.6026618288773372],

['CPFD\_17.png', 0.4910656340587548, 0.9772025297837917, 0.653655226898398],

['CPFD\_18.png', 0.41345417411284147, 0.8531982518871672, 0.5569931756298967],

['CPFD\_19.png', 0.20011656246688567, 0.9373614190687362, 0.329820089739017],

['CPFD\_20.png', 0.2582277132814996, 0.9865350089766607, 0.4093160485687363]]

f1\_value\_ave is: 0.5036339936874216

recall\_value\_ave is: 0.9224161684083219

precision\_value\_ave is: 0.3534247422845777

recall, precision,f1 value for this model is, [0.9224161684083219, 0.3534247422845777, 0.5036339936874216]

CPFD Model3

15 15 15 15

[['CPFD\_01.png', 0.2169815418023887, 0.7936586574188754, 0.3407924586499826],

['CPFD\_02.png', 0.15945082086299578, 0.9561532792925571, 0.2733217370441458],

['CPFD\_05.png', 0.27598166234801674, 0.9957301451750641, 0.4321785157451386],

['CPFD\_06.png', 0.27598166234801674, 0.9957301451750641, 0.4321785157451386],

['CPFD\_07.png', 0.3472978303747534, 0.9811682650392328, 0.5130091175936218],

['CPFD\_10.png', 0.24745544144061163, 0.8414670215912452, 0.38244337931246547],

['CPFD\_12.png', 0.11651265568501407, 0.99209726443769, 0.20853482343848934],

['CPFD\_13.png', 0.41538013399359164, 0.962336664104535, 0.5802869400075601],

['CPFD\_14.png', 0.37520510483135827, 0.945964669206789, 0.5372977490873875],

['CPFD\_15.png', 0.17633060997858332, 0.9897367246764837, 0.2993324230834995],

['CPFD\_16.png', 0.3562221701429576, 0.9784029553850526, 0.5222872211455787],

['CPFD\_17.png', 0.3011529933481153, 0.9629629629629629, 0.4588173692956733],

['CPFD\_18.png', 0.15220772195550747, 0.44433129667345556, 0.2267434395679272],

['CPFD\_19.png', 0.1047478773176226, 0.9943181818181818, 0.18952949744561806],

['CPFD\_20.png', 0.228544776119403, 1.0, 0.3720577069096431]]

f1\_value\_ave is: 0.3845873929381246

recall\_value\_ave is: 0.9222705488638125

precision\_value\_ave is: 0.24996353350326247

recall, precision,f1 value for this model is, [0.9222705488638125, 0.24996353350326247, 0.3845873929381246]

CPFD Model4

15 15 15 15

[['CPFD\_01.png', 0.2463652885052249, 0.8982410234045646, 0.3866751503563875],

['CPFD\_02.png', 0.09553693830921554, 0.8738307591907766, 0.17224241234530077],

['CPFD\_05.png', 0.2740011305149793, 0.8462183464698977, 0.41396313554437264],

['CPFD\_06.png', 0.2740011305149793, 0.8462183464698977, 0.41396313554437264],

['CPFD\_07.png', 0.2522699169757993, 0.9429914180629342, 0.3980524756720566],

['CPFD\_10.png', 0.15617255853942244, 0.9471212384762567, 0.26813229161617674],

['CPFD\_12.png', 0.07881305044035228, 0.8567208271787297, 0.1443470586817803],

['CPFD\_13.png', 0.05803265621302512, 0.7911321179383299, 0.10813330843894446],

['CPFD\_14.png', 0.3868913401182278, 0.9247652102899142, 0.5455447180779905],

['CPFD\_15.png', 0.0660377358490566, 0.18685121107266436, 0.09758616238543952],

['CPFD\_16.png', 0.30555037313432837, 0.7372225958305313, 0.4320377415664827],

['CPFD\_17.png', 0.29418120080259297, 0.5744962494484483, 0.38911104799713414],

['CPFD\_18.png', 0.036997247028805476, 0.08581644815256258, 0.05170388085378131],

['CPFD\_19.png', 0.033589447202012644, 0.15853658536585366, 0.05543398978847556],

['CPFD\_20.png', 0.03292838874680307, 0.18402154398563733, 0.0558611183864166]]

f1\_value\_ave is: 0.26218584181700744

recall\_value\_ave is: 0.6569455947557998

precision\_value\_ave is: 0.17275789352632168

recall, precision,f1 value for this model is, [0.6569455947557998, 0.17275789352632168, 0.26218584181700744]

########################APVD######################

APVD Model1

25 25 25 25

[['APVD\_01.png', 0.35067839005533236, 0.9725247110068688, 0.5154815608747343],

['APVD\_02.png', 0.3872243490366058, 0.65887812423675, 0.48777946572231595],

['APVD\_03.png', 0.44881722711360983, 0.839142091152815, 0.5848343517751005],

['APVD\_04.png', 0.4917110110519853, 0.9961122379986478, 0.6584106761070007],

['APVD\_05.png', 0.4873020769072589, 0.9826616682286785, 0.6515168464657666],

['APVD\_06.png', 0.3663845815193465, 0.9017113161903055, 0.5210538474737463],

['APVD\_07.png', 0.33984375, 0.7942506707550786, 0.4760117349130562],

['APVD\_08.png', 0.29533922427662684, 0.9562513879635799, 0.45129540022534037],

['APVD\_09.png', 0.2908431287186185, 0.9961884433602683, 0.450236917175598],

['APVD\_10.png', 0.2745490981963928, 0.7501734906315058, 0.4019809021274748],

['APVD\_12.png', 0.26342123852130916, 0.8075938566552902, 0.3972630729490493],

['APVD\_14.png', 0.3575124910778016, 0.9141711667484863, 0.5140077236730463],

['APVD\_17.png', 0.4153320447328455, 0.9876483410026641, 0.5847580039126371],

['APVD\_18.png', 0.3269565217391304, 0.9993218499932185, 0.492709227769316],

['APVD\_19.png', 0.3620980815995677, 0.9982030548068284, 0.5314226409414637],

['APVD\_20.png', 0.3430679531499923, 0.8181978798586572, 0.4834336186186271],

['APVD\_21.png', 0.5180035650623885, 0.8398284201880076, 0.6407775342217726],

['APVD\_22.png', 0.28375445952407224, 0.9857456140350878, 0.4406612016249187],

['APVD\_24.png', 0.3338957495692131, 0.7700432069131061, 0.4658122666351438],

['APVD\_25.png', 0.3785213111320557, 0.8552052785923754, 0.5247733590829821],

['APVD\_26.png', 0.4493625334155871, 0.9750653879686138, 0.6152053696864418],

['APVD\_27.png', 0.3263473053892216, 0.9975252236817057, 0.49179911457905057],

['APVD\_28.png', 0.3069312225906514, 0.8687382802035896, 0.4536018019017271],

['APVD\_29.png', 0.15446219720096738, 0.9107835531419706, 0.2641299038227052],

['APVD\_30.png', 0.3564400291074762, 0.9951586874663798, 0.5248812198138714]]

f1\_value\_ave is: 0.5049535104837155

recall\_value\_ave is: 0.9028449577112191

precision\_value\_ave is: 0.3563519816275223

recall, precision,f1 value for this model is, [0.9028449577112191, 0.3563519816275223, 0.5049535104837155]

APVD Model2

25 25 25 25

[['APVD\_01.png', 0.5629987400251995, 0.8922767632769308, 0.6903856930715916],

['APVD\_02.png', 0.6461628588166374, 0.6180900431490678, 0.6318147716589294],

['APVD\_03.png', 0.7133728590250329, 0.7412372157680469, 0.7270381540612197],

['APVD\_04.png', 0.7238194667523289, 0.9688979039891819, 0.8286169638534335],

['APVD\_05.png', 0.6468390147182186, 0.9243986254295533, 0.761103324922248],

['APVD\_06.png', 0.7467223650385604, 0.7070155004031897, 0.7263266633280734],

['APVD\_07.png', 0.5482231135155302, 0.5481793790724415, 0.5482012454217234],

['APVD\_08.png', 0.44951837317160187, 0.6372418387741505, 0.5271667319689012],

['APVD\_09.png', 0.6586854097474318, 0.915383442597957, 0.7661033595388727],

['APVD\_10.png', 0.5283018867924528, 0.604441360166551, 0.5638126943394481],

['APVD\_12.png', 0.501382652909518, 0.7787258248009101, 0.61001020886318],

['APVD\_14.png', 0.7130602409638555, 0.45745377188676156, 0.5573484695275116],

['APVD\_17.png', 0.44478987993138935, 0.7450956648098813, 0.5570468735465612],

['APVD\_18.png', 0.6709629023458811, 0.9363895293638953, 0.7817608931974858],

['APVD\_19.png', 0.5880735746547097, 0.8769092542677448, 0.7040180261830566],

['APVD\_20.png', 0.30982982268237536, 0.6565371024734983, 0.4209886922836353],

['APVD\_21.png', 0.43326854551344346, 0.6057314958474035, 0.5051865134360268],

['APVD\_22.png', 0.5635037843824995, 0.8567251461988304, 0.6798451315325394],

['APVD\_24.png', 0.4718094026484705, 0.7162746039366299, 0.5688909052600815],

['APVD\_25.png', 0.5622076707202993, 0.7281891495601173, 0.6345234569456297],

['APVD\_26.png', 0.6057347670250897, 0.9330427201394943, 0.7345784811936265],

['APVD\_27.png', 0.5327593448131037, 0.9341328764515515, 0.6785338581966887],

['APVD\_28.png', 0.4812112367748997, 0.8186445218323064, 0.6061302421001354],

['APVD\_29.png', 0.4183320308138886, 0.939100077579519, 0.57882179176723],

['APVD\_30.png', 0.6144698301113064, 0.9678590640129102, 0.7517023759650995]]

f1\_value\_ave is: 0.6455982208865172

recall\_value\_ave is: 0.7803189150315408

precision\_value\_ave is: 0.5654415909557489

recall, precision,f1 value for this model is, [0.7803189150315408, 0.5654415909557489, 0.6455982208865172]

APVD Model3

25 25 25 25

[['APVD\_01.png', 0.44782931748222055, 0.7770232031692134, 0.5681888470263324],

['APVD\_02.png', 0.728118576219842, 0.6384071042042458, 0.6803180919623412],

['APVD\_03.png', 0.6221289752650176, 0.627497062279671, 0.624801488779638],

['APVD\_04.png', 0.6004390779363337, 0.9765177548682703, 0.7436340781488145],

['APVD\_05.png', 0.6452013237727523, 0.8353158868622786, 0.7280522132407834],

['APVD\_06.png', 0.64510878876135, 0.7651933701657458, 0.7000385911220285],

['APVD\_07.png', 0.5110022189349113, 0.40268194245540945, 0.4504212173419303],

['APVD\_08.png', 0.45683199095662, 0.4452844452844453, 0.45098431091427077],

['APVD\_09.png', 0.5709814030565273, 0.5069535554972449, 0.5370658964260177],

['APVD\_10.png', 0.4060874291482258, 0.4916873936379107, 0.44480656966379384],

['APVD\_12.png', 0.36357149505165515, 0.9025275123956947, 0.5183374682024607],

['APVD\_14.png', 0.6420349053100631, 0.5133600996815727, 0.5705323314798458],

['APVD\_17.png', 0.5109152972930062, 0.9273777594388282, 0.6588524938627326],

['APVD\_18.png', 0.5602519627533321, 0.9750114626318203, 0.7116069810748417],

['APVD\_19.png', 0.6165181631254284, 0.8731556925787272, 0.7227304710354748],

['APVD\_20.png', 0.45796124684077505, 0.5823353293413174, 0.5127134311704251],

['APVD\_21.png', 0.4612145748987854, 0.3505926388022458, 0.3983665878765418],

['APVD\_22.png', 0.47685998828353837, 0.9261702796104304, 0.6295709490951173],

['APVD\_24.png', 0.5378276296211514, 0.6895218718209563, 0.6043004269894943],

['APVD\_25.png', 0.4873724489795918, 0.7468632371392723, 0.5898396376497858],

['APVD\_26.png', 0.592388306674021, 0.8333827453305662, 0.6925181888405076],

['APVD\_27.png', 0.3960301454198068, 0.7499197431781701, 0.5183312602043901],

['APVD\_28.png', 0.4541817243159525, 0.8956916099773242, 0.6027332336153088],

['APVD\_29.png', 0.45024925224327017, 0.908436886854153, 0.6020861142927404],

['APVD\_30.png', 0.6917667423996537, 0.9818890417239798, 0.8116820558140999]]

f1\_value\_ave is: 0.6029005174331887

recall\_value\_ave is: 0.7329119051571797

precision\_value\_ave is: 0.5333149193897533

recall, precision,f1 value for this model is, [0.7329119051571797, 0.5333149193897533, 0.6029005174331887]

APVD Model4

25 25 25 25

[['APVD\_01.png', 0.03072145511007597, 0.20304908694923773, 0.053368258933755526],

['APVD\_02.png', 0.013834536735931213, 0.02654074737441993, 0.018188302702560923],

['APVD\_03.png', 0.035354295170753725, 0.0918478800516334, 0.05105599894775905],

['APVD\_04.png', 0.023929676054045255, 0.020622041920216362, 0.02215307535430221],

['APVD\_05.png', 0.0540486186178637, 0.29053420805998126, 0.09114193390466267],

['APVD\_06.png', 0.5127716624329665, 0.4754054296210017, 0.4933820758174512],

['APVD\_07.png', 0.11241263903927552, 0.49666538903794555, 0.18333108248043847],

['APVD\_08.png', 0.0383340458964692, 0.5725072174106152, 0.07185669753041997],

['APVD\_09.png', 0.3019963702359347, 0.8115566397316664, 0.44018947862565827],

['APVD\_10.png', 0.20228728054630088, 0.4861593029531961, 0.2856978178518599],

['APVD\_12.png', 0.29322321870228185, 0.6658134243458476, 0.4071418058049736],

['APVD\_14.png', 0.1679094256931552, 0.9554900998199968, 0.28562553263138785],

['APVD\_17.png', 0.11983951904196262, 0.8581981109227416, 0.21031102629336212],

['APVD\_18.png', 0.21119473189087487, 0.3238844432388444, 0.25567314645302786],

['APVD\_19.png', 0.10099631499931759, 0.14260043640097547, 0.11824557192166026],

['APVD\_20.png', 0.12317601332593003, 0.7019434628975265, 0.20957594586338338],

['APVD\_21.png', 0.19778481012658228, 0.11125308022268869, 0.14240434610120498],

['APVD\_22.png', 0.15176046906157922, 0.725328947368421, 0.25100351050777536],

['APVD\_24.png', 0.010779456795040951, 0.03972635621699472, 0.016957594182810325],

['APVD\_25.png', 0.11133935907970419, 0.0373900293255132, 0.05598062287100681],

['APVD\_26.png', 0.05336986852359285, 0.3133391455972101, 0.09120511555414941],

['APVD\_27.png', 0.029002384517273886, 0.20788121073672186, 0.0509030674010015],

['APVD\_28.png', 0.0032273959103227396, 0.02678810608090008, 0.005760744833524369],

['APVD\_29.png', 0.00793984962406015, 0.04189294026377036, 0.013349589567542966],

['APVD\_30.png', 0.015240037480019843, 0.05527165142549758, 0.02389226672575881]]

f1\_value\_ave is: 0.1539357843544575

recall\_value\_ave is: 0.3472675755189425

precision\_value\_ave is: 0.11689893738445259

recall, precision,f1 value for this model is, [0.3472675755189425, 0.11689893738445259, 0.1539357843544575]

########################APFD######################

APFD Model1

15 15 15 15

[['APFD\_01.png', 0.4294315992292871, 0.6047273245051972, 0.5022226586260913],

['APFD\_02.png', 0.27626160282389856, 0.8507953102830259, 0.4170899860698451],

['APFD\_03.png', 0.32743844079004614, 0.8396854689882051, 0.4711501468113956],

['APFD\_05.png', 0.022084153196479616, 0.7999290528556225, 0.04298168355328999],

['APFD\_06.png', 0.5305548298936961, 0.7803127722238354, 0.6316407690026603],

['APFD\_07.png', 0.22609336609336608, 0.9608222066057625, 0.3660505126152213],

['APFD\_08.png', 0.4049178950905044, 0.8878553994326802, 0.5561818781468841],

['APFD\_10.png', 0.3607125415688007, 0.9233276539002889, 0.5187623657177776],

['APFD\_11.png', 0.5654232236005786, 0.765718167408861, 0.6505016484500188],

['APFD\_12.png', 0.2581662598392803, 0.7347956131605184, 0.3820880546457803],

['APFD\_13.png', 0.2806136210384356, 0.6270877619192226, 0.3877252384647958],

['APFD\_16.png', 0.5052433108065165, 0.8324289225917165, 0.628822419065839],

['APFD\_18.png', 0.22084009846540617, 0.7791153009427121, 0.34413514818348245],

['APFD\_19.png', 0.22084009846540617, 0.7791153009427121, 0.34413514818348245],

['APFD\_20.png', 0.16841780769131964, 0.87248322147651, 0.28233560596247953]]

f1\_value\_ave is: 0.4350548842332696

recall\_value\_ave is: 0.8025466318157914

precision\_value\_ave is: 0.3198025899062015

recall, precision,f1 value for this model is, [0.8025466318157914, 0.3198025899062015, 0.4350548842332696]

APFD Model2

15 15 15 15

[['APFD\_01.png', 0.5787934396146347, 0.5466324932365086, 0.5622534397513834],

['APFD\_02.png', 0.5962464557360817, 0.6906877753715182, 0.6400018402355709],

['APFD\_03.png', 0.8067960555241505, 0.772927866484795, 0.7894989057222096],

['APFD\_05.png', 0.5900401227283455, 0.5739623980134799, 0.5818902239996846],

['APFD\_06.png', 0.675288955829868, 0.5981250259260795, 0.6343690740011753],

['APFD\_07.png', 0.4834093992845689, 0.8476809557273366, 0.6157011656649798],

['APFD\_08.png', 0.6856542301629007, 0.6370472986344746, 0.6604576552046743],

['APFD\_10.png', 0.6116941529235382, 0.3250611156381954, 0.4245249329293364],

['APFD\_11.png', 0.44560981201283817, 0.49626386897124314, 0.46957475046970104],

['APFD\_12.png', 0.3823579304495335, 0.3797357926221336, 0.3810423505376599],

['APFD\_13.png', 0.4676840964056376, 0.4828423929547525, 0.4751423780042829],

['APFD\_16.png', 0.7070315937692511, 0.5983952506841056, 0.6481931172057349],

['APFD\_18.png', 0.41920779629047467, 0.7875271936185642, 0.5471583108409667],

['APFD\_19.png', 0.41920779629047467, 0.7875271936185642, 0.5471583108409667],

['APFD\_20.png', 0.4814780080652724, 0.7087248322147651, 0.573407168816488]]

f1\_value\_ave is: 0.5700249082816543

recall\_value\_ave is: 0.6155427635811009

precision\_value\_ave is: 0.5566999896725047

recall, precision,f1 value for this model is, [0.6155427635811009, 0.5566999896725047, 0.5700249082816543]

APFD Model3

15 15 15 15

[['APFD\_01.png', 0.8339510748702743, 0.10212558025897875, 0.1819674424355041],

['APFD\_02.png', 0.5731457258007495, 0.7027270388474401, 0.6313560566222861],

['APFD\_03.png', 0.6997250789125343, 0.6779544831368248, 0.6886677675705044],

['APFD\_05.png', 0.3482905982905983, 0.591632292280495, 0.43846142510948],

['APFD\_06.png', 0.5528283998735911, 0.4901710311546377, 0.5196176694947257],

['APFD\_07.png', 0.3898572555770748, 0.9503610108303249, 0.5529026797746076],

['APFD\_08.png', 0.5628452190990548, 0.7226606538895152, 0.6328187254829087],

['APFD\_10.png', 0.7966759002770083, 0.15438284916909806, 0.2586445798868925],

['APFD\_11.png', 0.802987012987013, 0.6316877746187646, 0.7071108848689334],

['APFD\_12.png', 0.6375647668393782, 0.34454314720812185, 0.44734100636771246],

['APFD\_13.png', 0.22029054536794476, 0.12199758078451702, 0.1570309429467065],

['APFD\_16.png', 0.6583900390907774, 0.521797824188041, 0.582189498051946],

['APFD\_18.png', 0.3724137931034483, 0.5314200890648194, 0.43793040956868434],

['APFD\_19.png', 0.3724137931034483, 0.5314200890648194, 0.43793040956868434],

['APFD\_20.png', 0.639760310186817, 0.38694992412746587, 0.4822299324831208]]

f1\_value\_ave is: 0.47707996201551317

recall\_value\_ave is: 0.4974554245749242

precision\_value\_ave is: 0.5640759675586475

recall, precision,f1 value for this model is, [0.4974554245749242, 0.5640759675586475, 0.47707996201551317]

APFD Model4

15 15 15 15

[['APFD\_01.png', 0.2047320589157004, 0.6873131140538231, 0.31548857215733916],

['APFD\_02.png', 0.03571428571428571, 0.00403255918153984, 0.007246863047708514],

['APFD\_03.png', 0.24887670883655716, 0.9094118591029448, 0.39080318451748225],

['APFD\_05.png', 0.060585825407424784, 0.7520397304008514, 0.11213761979265766],

['APFD\_06.png', 0.3457946924237076, 0.32011448956734556, 0.3324594237590784],

['APFD\_07.png', 0.282888780555749, 0.4762825017568517, 0.3549527735338069],

['APFD\_08.png', 0.23142549953223396, 0.814433669767135, 0.36043231133689774],

['APFD\_10.png', 0.23860720830788026, 0.6233054300318542, 0.34510497228472353],

['APFD\_11.png', 0.03485652069157972, 0.6762019775077365, 0.06629566563193971],

['APFD\_12.png', 0.04858256675163717, 0.8494516450648056, 0.09190861707857555],

['APFD\_13.png', 0.03540715574901794, 0.8758983702803927, 0.06806294734534062],

['APFD\_16.png', 0.4049782773326956, 0.7140670655349938, 0.5168363408033347],

['APFD\_18.png', 0.2674207230862452, 0.2600435097897027, 0.26368052689632304],

['APFD\_19.png', 0.2674207230862452, 0.2600435097897027, 0.26368052689632304],

['APFD\_20.png', 0.38016334223339093, 0.6630872483221476, 0.4832615802886915]]

f1\_value\_ave is: 0.2648234616913481

recall\_value\_ave is: 0.5923817786767884

precision\_value\_ave is: 0.20583029124162336

recall, precision,f1 value for this model is, [0.5923817786767884, 0.20583029124162336, 0.2648234616913481]