

## Section 2

### Parameters report

Parameters are as below

w0: 28.151154856835507

w1: [14.821422475214217, -8.922950251537857, -6.114941469383007, -3.4034608371011075, -10.078302737368665, -4.233412337856102, 17.82388053046373, -24.570205573300427, -30.126102298828886, 9.284804673062599, -13.42834347195527, -12.872778366140679, 16.23890393175043, 13.584161030466062, -5.718695343182654, 13.321007714040555, 30.560909217115295, -6.995985287319495, -1.0655407847370881, -5.126035584845911]

### F1 score according to K values

K = 1, F1 score = 0.5038167938931297

Accuracy report according to K values

K = 2, F1 score = 0.44202898550724634

Accuracy report according to K values

K = 3, F1 score = 0.4636488340192044

Accuracy report according to K values

K = 4, F1 score = 0.44961240310077516

Accuracy report according to K values

K = 5, F1 score = 0.4643741403026135

Accuracy report according to K values

K = 6, F1 score = 0.461145905822315

Accuracy report according to K values

K = 7, F1 score = 0.47058823529411764

Accuracy report according to K values

K = 8, F1 score = 0.4678645473393227

Accuracy report according to K values

K = 9, F1 score = 0.4731803677252697

Accuracy report according to K values

K = 10, F1 score = 0.47128331959329495

Accuracy report according to K values

K = 11, F1 score = 0.477334654446371

Accuracy report according to K values

K = 12, F1 score = 0.4779888522352406

Accuracy report according to K values

K = 13, F1 score = 0.4815704291531795

Accuracy report according to K values

K = 14, F1 score = 0.48171206225680935

Accuracy report according to K values

K = 15, F1 score = 0.4860960635608523

Accuracy report according to K values

K = 16, F1 score = 0.4867339154022209

Accuracy report according to K values

K = 17, F1 score = 0.49082386589338206

Accuracy report according to K values

K = 18, F1 score = 0.49177372098264593  
Accuracy report according to K values  
K = 19, F1 score = 0.49560408394781624  
Accuracy report according to K values  
K = 20, F1 score = 0.4968969239071775  
Accuracy report according to K values  
K = 21, F1 score = 0.49903833824849336  
Accuracy report according to K values  
K = 22, F1 score = 0.49947932618683  
Accuracy report according to K values  
K = 23, F1 score = 0.5006139273811612  
Accuracy report according to K values  
K = 24, F1 score = 0.5003085553997195  
Accuracy report according to K values  
K = 25, F1 score = 0.501183050118305  
Accuracy report according to K values  
K = 26, F1 score = 0.5015262041492058  
Accuracy report according to K values  
K = 27, F1 score = 0.5032578960457597  
Accuracy report according to K values  
K = 28, F1 score = 0.5041258875455766  
Accuracy report according to K values  
K = 29, F1 score = 0.5061956722766783

Best K value = 29

## Section 5

K = 1, F1 score = 0.6059850374064838  
Accuracy report according to K values  
K = 2, F1 score = 0.5448129851799577  
Accuracy report according to K values  
K = 3, F1 score = 0.5705272645335736  
Accuracy report according to K values  
K = 4, F1 score = 0.5621959694232105  
Accuracy report according to K values  
K = 5, F1 score = 0.5760693015701137  
Accuracy report according to K values  
K = 6, F1 score = 0.575  
Accuracy report according to K values  
K = 7, F1 score = 0.5853284811338824  
Accuracy report according to K values  
K = 8, F1 score = 0.5850294365012617  
Accuracy report according to K values  
K = 9, F1 score = 0.5895731797371142  
Accuracy report according to K values

K = 10, F1 score = 0.5902250632574244  
Accuracy report according to K values  
K = 11, F1 score = 0.5952038369304558  
Accuracy report according to K values  
K = 12, F1 score = 0.5963252282979425  
Accuracy report according to K values  
K = 13, F1 score = 0.6018928715263794  
Accuracy report according to K values  
K = 14, F1 score = 0.6050074738415545  
Accuracy report according to K values  
K = 15, F1 score = 0.6102017840131636  
Accuracy report according to K values  
K = 16, F1 score = 0.6121654501216546  
Accuracy report according to K values  
K = 17, F1 score = 0.616190765492102  
Accuracy report according to K values  
K = 18, F1 score = 0.6172591743119267  
Accuracy report according to K values  
K = 19, F1 score = 0.6206849962845369  
Accuracy report according to K values  
K = 20, F1 score = 0.6226185130540767  
Accuracy report according to K values  
K = 21, F1 score = 0.6245737944471506  
Accuracy report according to K values  
K = 22, F1 score = 0.625864574251671  
Accuracy report according to K values  
K = 23, F1 score = 0.6273770582691135  
Accuracy report according to K values  
K = 24, F1 score = 0.6283134130146083  
Accuracy report according to K values  
K = 25, F1 score = 0.6305884746452368  
Accuracy report according to K values  
K = 26, F1 score = 0.6317488262910798  
Accuracy report according to K values  
K = 27, F1 score = 0.6333991166243774  
Accuracy report according to K values  
K = 28, F1 score = 0.6344690105110548  
Accuracy report according to K values  
K = 29, F1 score = 0.6363279375190889

Best K Value: 29

Parameters report

w0: -0.04996462056759876

w1: [0.020093919298049934, -0.04065704575102737, -0.043156394476313004,  
0.008797049161177913, 0.051507080533167465, -0.0707084375481069, 0.013149544977385574,  
0.019469579072639326, 0.05838735825005566, -0.04424735382114038, -0.07661868897550195,  
0.03455294850082166, 0.057897543038496056, 0.009904603332280132,  
-0.026632711465336315, -0.00507539318663823, 0.05219704306988138,  
-0.00996703121612802, 0.05455188257599919, -0.021396718383598995, 0.0]