Results

Multivariate Linear Regression (Closed Form)

- Input features - age, bmi, smoker_yes
- Target variable - charges

	Mean Square Error	Mean Absolute Error
Train Data	34.27654428672158	4.093436671285072
Test Data	43.19853329289433	4.443096903456985

Multivariate Linear Regression (Gradient Descent)

- Input features - age, bmi, smoker_yes
- Target variable - charges

	Mean Square Error	Mean Absolute Error
Train Data	34.27655679747978	4.092583452025161
Test Data	43.19954714763513	4.4424370353870675

Univariate Linear Regression (Closed Form)

- Input feature - age
- Target variable - charges

	Mean Square Error	Mean Absolute Error
Train Data	127.7258718002987	8.869895866118968
Test Data	140.27309565146032	9.080383025558111

Univariate Linear Regression (Gradient Descent)

- Input feature - age
- Target variable - charges

	Mean Square Error	Mean Absolute Error
Train Data	127.7258718002989	8.869895872811778
Test Data	140.2730965539362	9.080383055192343

Softmax Regression

- Input features - MajorAxisLength, MinorAxisLength, Eccentricity, Extent, Solidity, roundness, ShapeFactor2, ShapeFactor4
- Target variable - Class

	Accuracy Score	F1 Score
Train Data	0.9001673722555873	0.9117532923884589
Test Data	0.8966331955109273	0.907970432766956

Gaussian Naive Bayes

- Input features - MajorAxisLength, MinorAxisLength, Eccentricity, Extent, Solidity, roundness, ShapeFactor2, ShapeFactor4
- Target variable - Class

	Accuracy Score	F1 Score
Train Data	0.9029240917593778	0.9157299289058302
Test Data	0.8998818665091554	0.9113481685838162