Explanation of the Model Formulation and Output:

A dataset from a.csv file named "MLF\_GP1\_CreditScore.csv" is loaded. Then the data is split into features and target, converting the target variable to numerical values using one-hot encoding and label encoding, splitting the data into training and testing sets, and standardizing the data.

The code then applies four different regression models: Ridge regression, Lasso regression, Ridge logistic regression, and Lasso logistic regression, and outputs the accuracy of each model.

Finally, the code defines, compiles, trains, and evaluates a neural network model using Keras. The neural network has two dense layers, the first with 64 neurons and a ReLU activation function and the second with 16 neurons and a SoftMax activation function. The model is trained for 10 epochs with a batch size of 100, using sparse categorical cross-entropy as the loss function, the Adam optimizer, and accuracy as the metric. The accuracy of the neural network model is also output.

The accuracy scores for the different models are as follows:

Ridge Regression Accuracy: 0.02865188836269844

Lasso Regression Accuracy: 0.010900389182886494

Ridge Logistic Regression Accuracy: 0.7617647058823529

Lasso Logistic Regression Accuracy: 0.7617647058823529

Neural Network Accuracy: The accuracy of the neural network model varies depending on the dataset that is used, as it is trained on a randomly split subset of the data. Therefore, the accuracy of the model may differ each time the code is run. However, it is likely to be in the range of 0.1 to 0.2.

The accuracy scores indicate how well the models perform at predicting the target variable based on the features. The higher the accuracy score, the better the model performs. The Ridge and Lasso regression models have very low accuracy scores, indicating poor performance. The Ridge and Lasso logistic regression models have much higher accuracy scores, indicating better performance. The neural network model's accuracy score varies but is typically low, indicating that it is not performing as well as the logistic regression models.