# Code and Screenshots

import pyspark

from pyspark.ml.regression import LinearRegression

from pyspark import SparkContext, SparkConf

#Settibbg Environmets

conf=SparkConf().setMaster("local").setAppName("Spark1")

sc = SparkContext(conf=conf)

# Load labledpoint data

training = spark.read.format("libsvm").load("sample\_linear\_regression\_data.txt")

lr = LinearRegression(maxIter=10, regParam=0.3, elasticNetParam=0.8)

lrModel = lr.fit(training)

# Print the coefficients and intercept for linear regression

print("Coefficients: ",str(lrModel.coefficients))

print("Intercept: ",str(lrModel.intercept))

# Summarizeing the model over the training set

trainingSummary = lrModel.summary

print("numIterations: ",trainingSummary.totalIterations)

print("objectiveHistory: ",str(trainingSummary.objectiveHistory))

trainingSummary.residuals.show()

print("RMSE: ",trainingSummary.rootMeanSquaredError)

print("r2: ",trainingSummary.r2)

