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import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import math

data = pd.read_csv("data-linear-reg.csv")
length = len(data)
start = 0
count = 0
xx = 0
x1 = 0
y1 = 0
mult = 0
for var in range(start, length):
    a = data.at[var, 'x']
    b = data.at[var, 'y']
    plt.scatter(a, b)
    if (math.isnan(a) == False and math.isnan(b) == False):
        x1 = x1 + a
        y1 = y1 + b
        mult = mult + (a*b)
        xx = xx + (a*a)
a_x1 = float("{:.2f}".format(x1/length))
a_y1 = float("{:.2f}".format(y1/length))
a_xx = float("{:.2f}".format(xx/length))
a_mult = float("{:.2f}".format(mult/length))
t_w1 = (a_mult - (a_x1*a_y1)) / (a_xx - (a_x1*a_x1))
t_w0 = (a_y1 - (t_w1*a_x1))

w1 = float("{:.3f}".format(t_w1))
w0 = float("{:.3f}".format(t_w0))
x_id = 1
y = w0 + (w1*x_id)
print("The value of w0 =", w0, "and w1 =", w1)
print("Equation is : y = w0 + w1*x")
print("Last 2 digit of Id :", x_id)
print("predicted value of y :", y)
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The value of  $w_0 = -0.089$  and  $w_1 = 1.0$

Equation is :  $y = w_0 + w_1 \cdot x$

Last 2 digit of Id : 1

predicted value of  $y$  : 0.911

