

AI and ML- Assignment 1

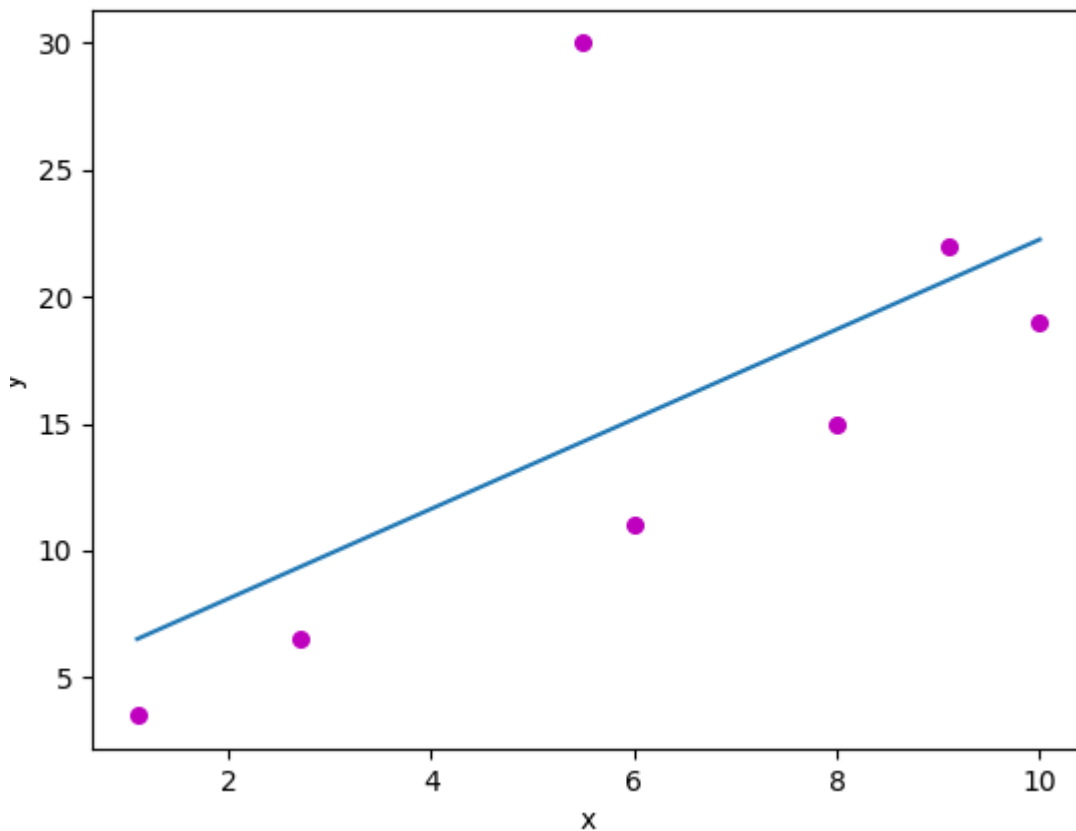
Write a python program to perform linear regression analysis. The program should do the following:

- Reads data from **input_file.txt**. The format will be (for example):

X	1.1	2.7	5.5	6	8	9.1	10
Y	3.5	6.5	30	11	15	22	19
- Performs linear regression. Compute R^2
- Computes (vertical) distance between data points and regression model (take absolute value)
- Computes z-scores and discover outlier with $z\text{-score} \geq 2$

This is your output:

Outlier Point x=5.5 y=30.0 z-score=2.23



Submission:

- Deadline: Thursday 05/11 @ 11:00pm
- One student per assignment.
- You can use the following libraries:
 - numpy
 - matplotlib