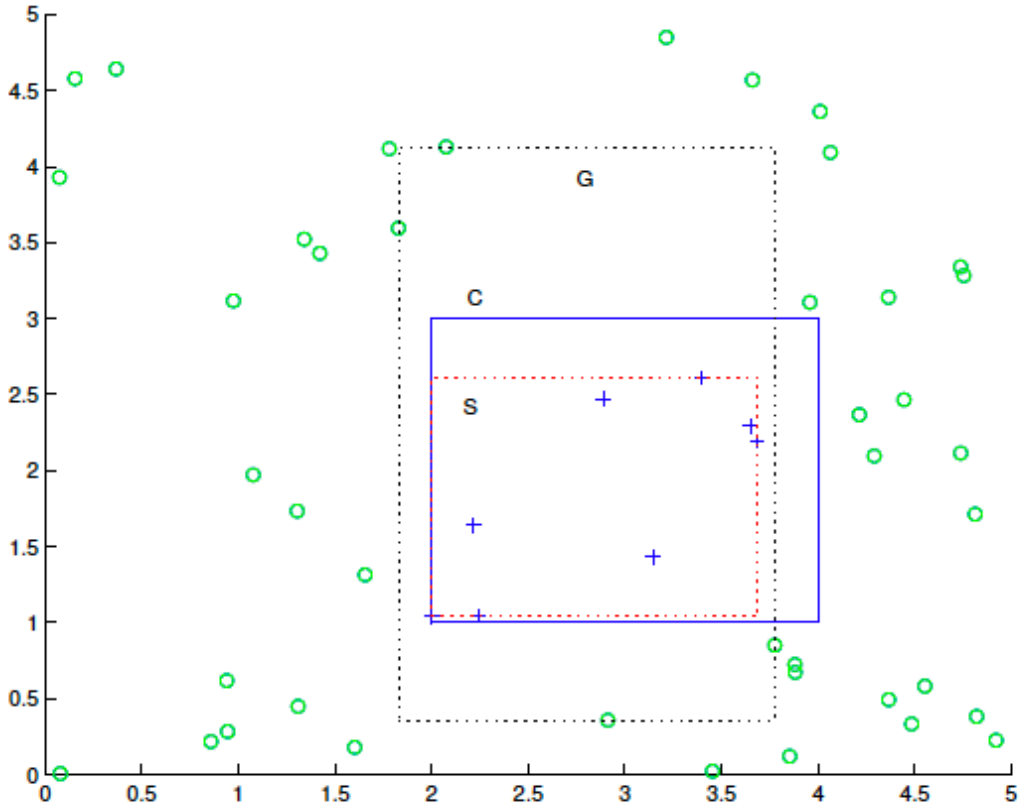
Quiz-1
Machine Learning
Due Date: Friday, 29th Sept. 2023

Task: As explained in the lecture notes, for the depicted training data in the figure, estimate the hypotheses S and G as they are shown. The process of calculating S and G should be automatic and not hard-coded. This means if we have to change the training data points, the algorithm should automatically find the S and G for that data too. You can approximate the data coordinates from the given figure. Once done, create a test data with similar ranges but randomly generated coordinate for both positive and negative examples. The new test data should be mapped on the S and G hypotheses of training data. So, on test data, the code should automatically find out,

1) Percentage of positive points falling in S
2) Percentage of negative points falling in S
3) Percentage of positive points falling in G
4) Percentage of negative points falling in G



Deliverable: Python source code, results and relevant scatter plots to show hypotheses on training data and test data. Make a single PDF file and upload to LMS.