Fuzzy Systems
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Programming Assignment Sheet 2

Programming Assignment 2   **Controller**

Implement the concept of a controller based on a system of relational equations.

a) Enable the user to enter finite crisp sets X and Y with an arbitrary number of elements. Examples are given in the ending slides of the lecture on fuzzy rule bases with classes of cars and possible maximum speeds.

b) Let the user enter corresponding fuzzy sets $\mu_1, \ldots, \mu_r$ on X and $\nu_1, \ldots, \nu_r$ on Y.

c) Write a function that computes the greatest solution for each $\mu_i \circ \varrho = \nu_i$.

d) Write a method that outputs the greatest solution for all $\mu_i \circ \varrho = \nu_i$.

e) Write a main method that combines a) to d) so that, fuzzy sets can be entered and the greatest solution for all $\mu_i \circ \varrho = \nu_i$ is the output of the program.