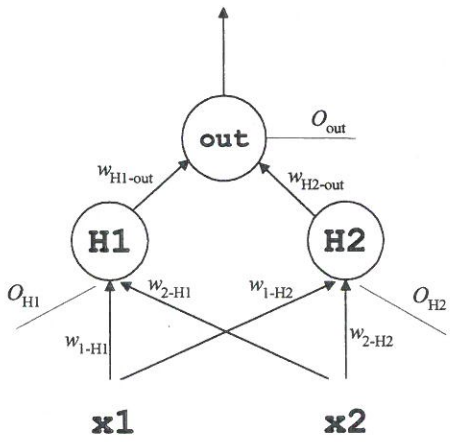
5) Given the multilayer neural network in the figure below, with two inputs one output (with a threshold) and two hidden units (with corresponding thresholds). Iinterpret the behaviour of the *back-propagation learning* algorithm when assimilating the following examples:



x1	x2	Out
0	0	0
0	1	1

Assume the following parameters: the thresholds are held at **1**, *learning-rate*=**1**, and zero momentum.

Consider the following initial weights and thresholds:

θH1 = -0.1	θH2 = -0.15	θout = 0.05
w1-H1 = 0.2	w2-H1 = 0.25	wH1-out = -0.1
w1-H2 = 0.3	w2-H2 = -0.1	wH2-out. = 0.2

Show the resulted weights and thresholds, their modified values, observed after processing each example (that is assuming the weights are updated after each example).

(1) θH1 = -0.096742 θH2 = -0.156953 θOut = -0.088638
wH1-out = -0.162056
wH2-out = 0.13957

(2) θH1 = -0.102030 θH2 = -0.158883 θout = 0.055665
w2-H1 = 0.247114
w2-H2 = 0.085363
wH1-out = -0.091383
wH2-out = 0.15684