If we want to eliminate the lost update problem and also not execute the transactions in strict modem, we can use a list or a hash-map to store the before images. The before image of a variable is only updated when a transaction which writes to this variable is committed.

If we have transactions T1 and T2 with the following history

initial before images: x = 1, y = 0

T1 T2 before image

w1(x, 2); x = 1, y = 0

w2(x, 8);

w2(y, 9);

c2; x = 8, y = 9

w1(y, 3);

a1 x = 8, y = 9

Thus, when T1 aborts, x and y are recovered using the before images, T2’s updates are not lost. Also, T2 is permitted to overwrite the uncommitted data by T1, thus this execution is not in strict mode.