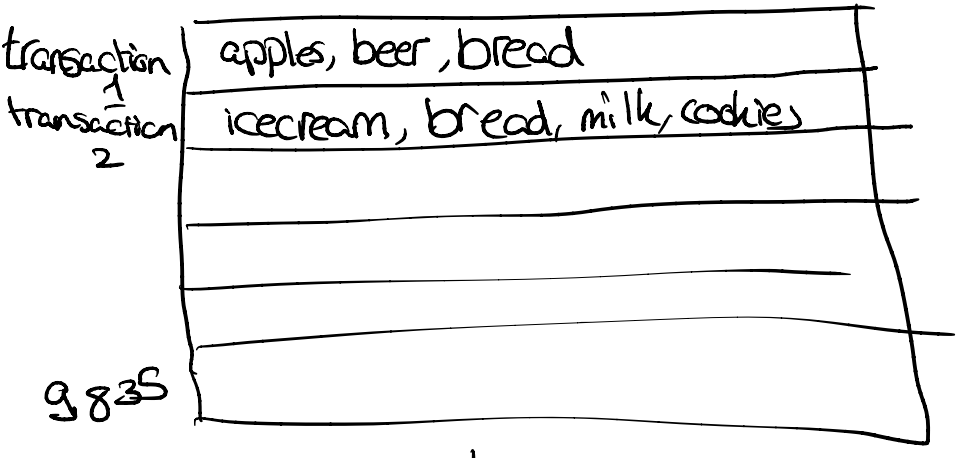
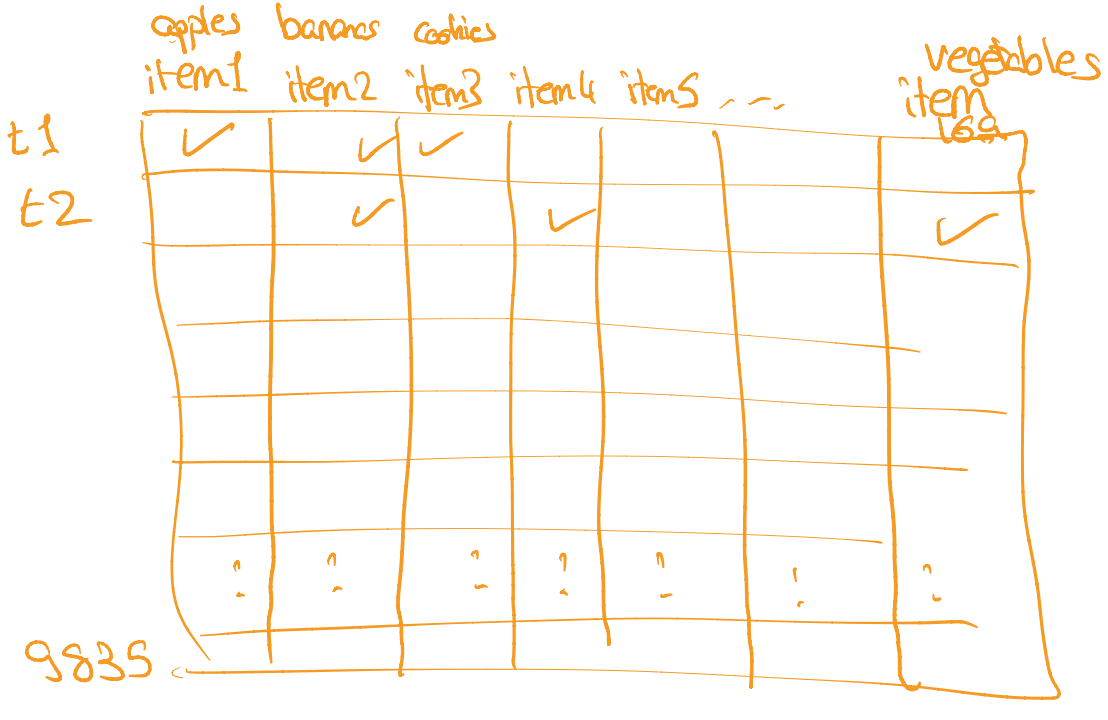


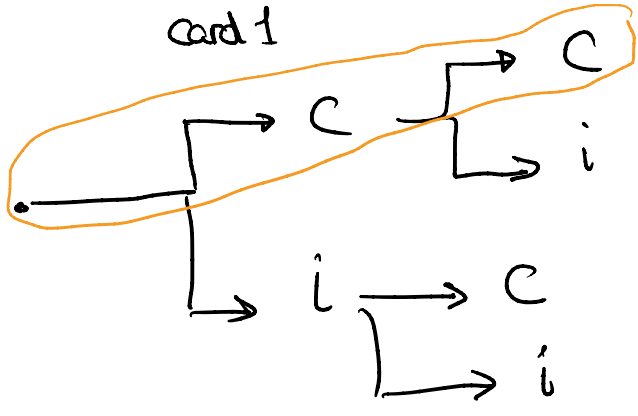
we store the data using a sparse matrix representation



Prob(1 correct card) = 0.5

Prob(getting 2 correct cards in a row) = 0.25

= 0.5x0.5



$\frac{1}{4}$ possible outcomes

P(getting all 10 correct) = 0.5^{10}

= 0.000976

= 0.97 out of 1,000

≃ 1 out of 1,000

$$\text{Confidence}(I \to j) = P(j \mid I)$$

$$= \frac{\text{count of baskets containing both } j \text{ \& } I}{\text{count of baskets cont } I}$$

$$\text{Lift}(I \to j) = \frac{\text{conf}(I \to j)}{\Pr(\text{containing } j)}$$