# Lab Session 5 Customer Analytics – Questions after Lab

*Questions received via email (questions regarding the main lecture will be discussed in next week's Q&A!)*

1. [Doga];
   (1) Can you please go over how to calculate a user profile manually?
       (t(rating_m) / rowSums(item))

   (2) Before calculating the cosine similarity as a measure of closeness we assign values to the new item matrix, how do we decide on these values?

   ```
   new_item <- matrix(c(1,0,
                        0,1,
                        .1,0), byrow = TRUE, nrow = 3, ncol = 2, dimnames=list(row_names,col_names))
   ```

2. [Jan];
   (1) What does %*% mean in R?

3. [Noa];
   (1) When making a user profile should we always use the transpose of the normalized ratings? Why? Has that something to do with the multiplication of the matrices?

   (2) When computing the CS, should we always take the transpose of the new_item in the numerator? Because in the denominator we take new_item^2 without the transpose, right? Why is that the case?