



Exercise Sheet 4: View Integration

(until Thursday 15.11.2012)

Please note that you need **50%** of all exercise points to receive the “Studienleistung”. Exercises have to be turned in until **Thursday** of each respective week and must be completed in teams of two students each. You may hand in your solutions either on paper **before the lecture** or into the mailbox at the IFIS floor (Informatikzentrum 2nd floor). Please do not forget to write your “Matrikelnummer” and your tutorial group number on your solutions. Your solutions may be in German or English. Please note: To pass the “RDB I Modul” you need both the exercise points and the exam!

Exercise 4.1 (8 points)

- a. Describe a scenario where view integration is necessary. (2 points)
- b. Name two types of conflicts that can occur. Briefly explain them in your own words (2 points)
- c. Briefly explain the idea of entity clustering in your own words (2 points)
- d. Explain the necessary clustering steps. Use your own words (2 points)

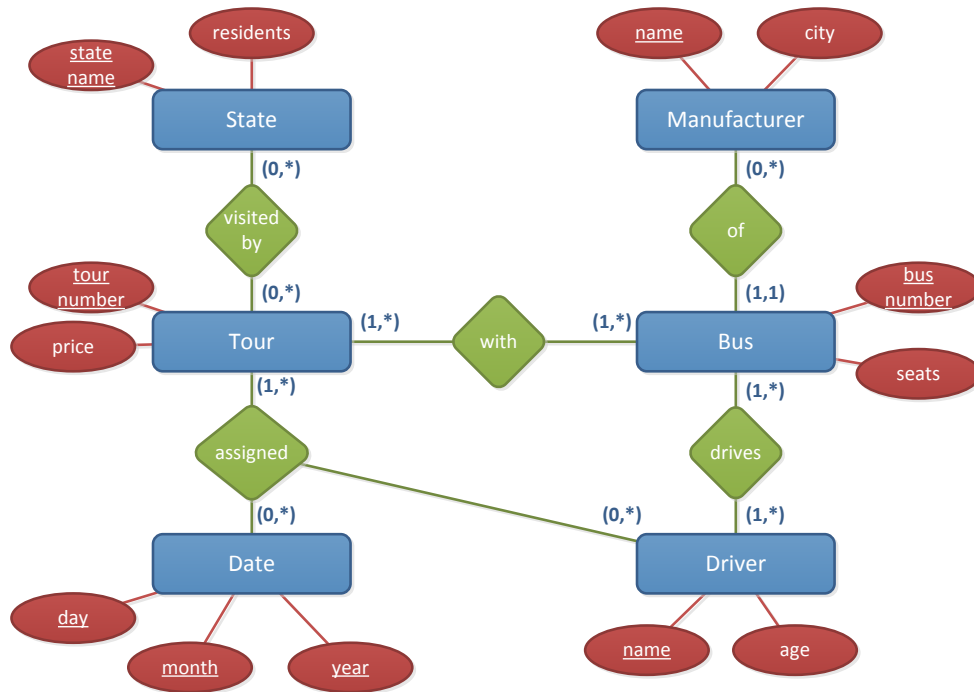
Exercise 4.2 (8 points)

Name the four basic steps of conceptual schema integration. What are they about? What results/documents do you get after each step?

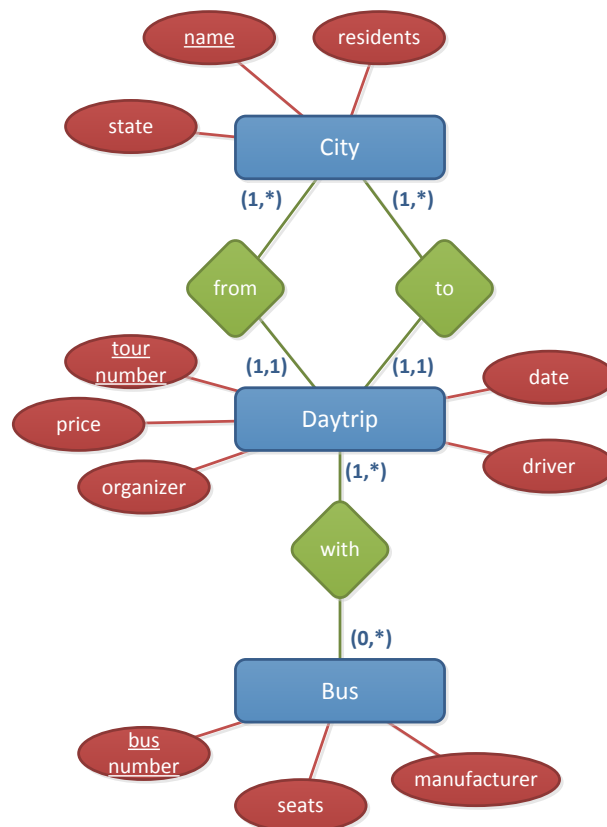
Exercise 4.3 (16 points)

Given are the following ER-Diagrams of a bus company:

(1)



(2)



- a. Discuss strengths and weaknesses of the two diagrams. Which entity types correspond to each other? What conflicts occur? (6 points)
- b. Integrate the schemas by resolving all conflicts. Document all non-trivial design decisions. (10 points)