

INFSCI 2710 "Database Management" | Solution to Example Midterm Exam II |

Exercise 1 (ER Design)

12 Points

This exercise was a bit difficult because the application is from German canteens/cafeterias for students. The American system is different. I will try to use other examples in future which are better known.



You do not need to use a weak entity for the sales. You could use an entity for Date and put \Num_Sold" as an attribute to the relationship \ordered_on" between Menu and Date.

Exercise 2 (Comparison of ER-Schemas)

3 Points

The two entity-relationship diagrams are equivalent (can store exactly the same information). Since the relationships \from" and \to" have the cardinality \((1,1)\)", every flight must participate in these relationships exactly once. But then the attributes \Departure" and \Arrival" are uniquely defined for every flight and can as-56841-375(cn")-av5(cnd)-335(can)-37

For example, the following state would be valid with respect to the right key, but invalid with respect to the left key:

Meeting	
Date	From

Exercise 7 (SQL)**9 Points**

- a) Give all information about flower bouquets which contain the substring "roses" in their description. (You must use the LIKE operator of SQL for this.)

```
SELECT *
FROM Flowers
WHERE Description LIKE '%roses%'
```

- b) Print the recipient name and address of all orders to be delivered in Pittsburgh or Philadelphia on 10/07/99. (Note that the date restriction applies to deliveries in both cities.) Date values are normally written in Oracle as '10-JUL-99'.

```
SELECT RName, RAddress
FROM Order
WHERE (RCity = 'Pittsburgh' OR RCity = 'Philadelphia')
AND Date = '10-JUL-99'
```

- c) Print the order number, recipient name, city and state of all orders for flower9(u)27(t)-3swo.732