Free University of Bozen Bolzano – Faculty of Economics

Information Systems and Data Management exam

# Rules

* + Communication with other people or among students is forbidden. Opening any communication program on your computer or other devices is not allowed and is considered cheating.
  + It is forbidden to distribute any file or exam text until the day after.
  + You are responsible for the correct copy of your files.

**Specific Covid rules for online exams.** You receive your exams via email. Do the exercise on Excel, Word, an image editor or whatever program you wish or on paper and take a picture of it. At the end of the exam send it via email answering to my original email. Pay attention to the time, that you have to handle yourself.

Exercise relational database

You have 45 minutes starting from now.

Draw the schema of this database, using at least (more if necessary): 3 tables, a junction table, 15 fields in the entire database. Try to make the database as complete as possible, keeping it simple and not contorted. You must indicate very clearly field names, Access field types, primary keys, relations with their “1” and “many” sides and the fields involved in the relations, required fields, indexed fields, at least two validation rules. For all the fields whose name is not obvious, you must also include a small comment that lets everybody understand what the field should contain. You must also justify non-standard choices.  
Moreover, suggest two new queries (in English, not in Access nor in SQL): one that involves at least two tables and is not a summary query and another one that needs a summary query to be implemented.

**Seaside resort (stabilimento balneare, Seebad):** build the database of a seaside resort. The resort has umbrellas placed as Excel cells, in rows and columns. The resort rents to customers a place on the beach with umbrella and from 1 to 4 beach chairs. For simplicity, it is not possible to borrow beach chairs without an umbrella. The rental can last from 1 to 120 days. The database must be able to answer to the question “How much did Mario Rossi paid for his rentals in August?”.

