Principles of Database Management - Exam January 2017

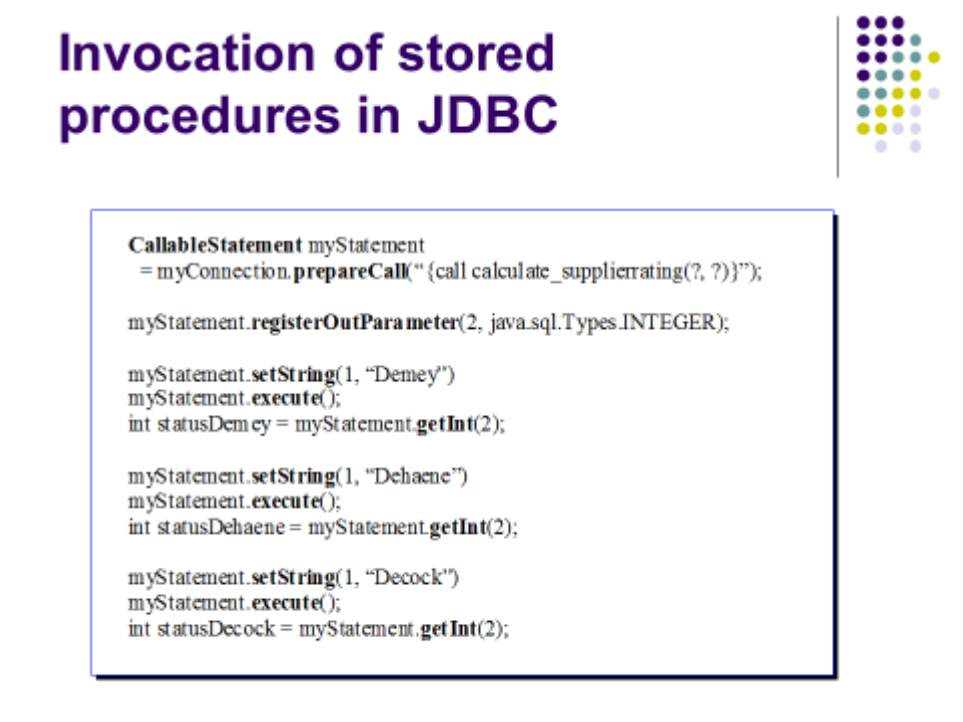
1. Part Bart Baesens
   [Only open questions]

- EER model given: explain semantics that cannot be enforced
- model this EER model to a relational model and document loss of semantics
- Explain the following concepts:
    - declarative DML
    - EER categorization + give example
    - View WITH CHECK option
    - correlated SQL query + give example
    - Boyce-Codd Normal Form + give example
    - 4NF + example
    - Composite Aggregation + example
    - Procedural DML
    - GROUP BY/HAVING + example

Baesens oral mini questions :

- OCL and what does it do + example
- Weak entity type and existence dependent + explain relation to eachother
- Specialisation app user assignment = why?
- Can Foreign keys be null? And when?
- Can a Primary key be null? Foreign key from Primary key from same entity?
- Codasyl why individual & business split?
- Codasyl owner & member type
- Dummy record type for N:M relationship (codasyl)
- Which loss of semantics

2. Part Wilfried Lemahieu



- What does this program do, is it early/late binding and call-level/embedded? Explain. (slide above, same as in exam)
- Explain the difference between stored procedures and prepared statements
- Explain minidimensions + give example
- Explain staging in DW and ODS and compare
- Case 'online shoe shop': would you use RIA/SQLJ/optimistic scheduler OR HTML forms/After Images/… OR servlet/server side script/ETL and why (not)?
- recovery manager: what does it do + in which part of acid properties is he involved
- surrogate key: what is it + explain with an example of how it can aid in dealing with slowly changing dimensions