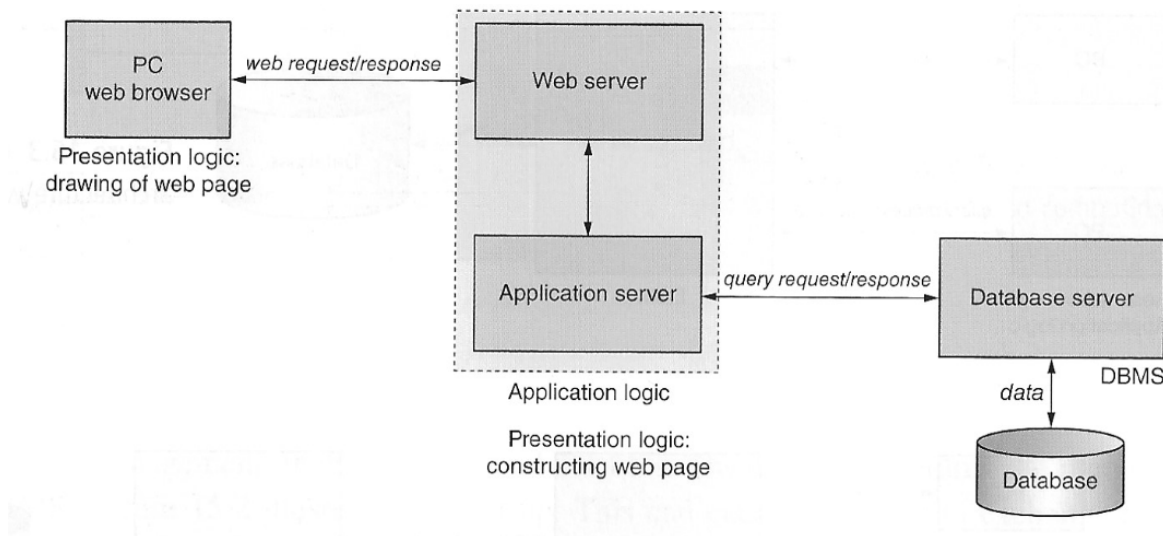# Projects 2
Database Evaluation

Tasks

1. Make a diagram of the architecture of your application, e.g. for a web application:

Specify for each module the technology you used and the hosting (if applicable), e.g. "Database server": MS SQL Server on MS-Azure.

Keep in mind the requirement "anywhere – anytime – any device".

2. Database API
   a. Which database API's did you use? Are you using e.g. Language Integrated Query, JDBC, … ?
   b. Is your system subject to possible SQL Injection Attacks (see lecture about Dynamic SQL in Databases 2).

3. Database design
   a. Provide the ERD schema of the (generated) database design
   b. Does the generated design conform to common best practices as normalization, primary keys, foreign key constraints, check constraints, well suited data types (e.g. don't use double if an integer would fit). What would you change to the design if you could make the design yourself?
   c. Are you able to influence the design from your IDE?
   d. Which technology did you use for Object Persistence in JAVA or .NET? Discuss the developer friendliness of this technology.

4. How portable is your architecture to another DBMS, e.g. from MS-SQL Server to mySQL? What would you have to change? Estimate the amount of work in man days.

5. Power BI reports (example KPI's) are an important requirement.

   a. Provide SQL statements for the required "fixed" reports.
   b. Is there a need for ad-hoc reports that can be created by the end-users?

Prepare a short presentation to answer the above questions.

Johan Decorte

HO
GENT