
COIT20247 - Database Design & Development
Tutorial – The database environment

Answer each of the questions below. You should be able to answer most of these questions within about 3 to 5 sentences. Refer to the lecture slides to find the important points about each of these questions. Keep to the point and be sure to *answer the question that has been asked*. For example, if you are asked “What is the definition of a database?” then explain the important concepts in the definition a database; **don’t** say how wonderful databases are.

1. What is the difference between **data** and **information**? Give an example of each.
 2. What is meant by the term **metadata**? Give some examples of metadata that might be associated with the data items you mentioned in question 1.
 3. What is the principal problem with **file-based systems**?
 4. List some of the disadvantages that arise with file-base systems.
 5. What are the two underlying concepts in the definition of a **database**? Explain what is meant by these two concepts.
 6. What is a database management system (**DBMS**)?
 7. What are the major components in a **database environment**? Give a sentence describing each.
 8. Contrast the terms **data dependence** and **data independence**.
 9. How do database systems overcome the problems associated with file-based systems?
 10. Briefly list the database development activities that are undertaken during a typical systems development life cycle.
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