
COIT20247 - Database Design & Development
Tutorial Solution – The database environment

1. **Data:** simple, unorganised and un-interpreted facts – usually represented by numbers, characters, pictures, etc. For eg, 123456S1
Information: data that has been structured and can be processed in such a way that it becomes meaningful. For eg, Bank account nbr: 123456S1
 2. Left as an exercise.
 3. The principal problem is that the definition of the data is written into the programs that use the data files. This means to change the data file you must also change every program that uses it. Changing the programs can be very time-consuming and it can be difficult to ensure you've located all programs that use that data file.
 4. Left as an exercise.
 5. **Integrated collection:** Single logical unit
Logically related: all about a common theme
 6. **DBMS:** A software system that is used to create, maintain and provide controlled access to user database.
 7. Left as an exercise.
 8. **Data dependence** means that program files are closely tied to their data files, and it is not possible to change the data structure in one without changing the structure in the other.
Data independence means that programs are not closely tied to data files, and therefore changes to data files require fewer or no changes to the program.
 9. Left as an exercise.
 10. Left as an exercise.
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