**dAssignment 2 Management Information Systems 21/22 year1, term2**1918IN121B Assignments Management Information Systems

Handing out: week 49 (dec.6)   
Deadline : week 50 (dec.10) on paper at the beginning of the class in week 50  
 or in in my paper-mailbox on the same day; no later than 4 pm.

**Individual assignment.**   
*Please fill out this Word form (available at BB) digital. Enter your student number, name and group code.   
Give your answers in the appropriate boxes; make the boxes larger, if necessary.   
Equal solutions of different students are all rated “Fail”.   
Hand in the your printed paper; no plastic folders, just paper and a staple.*

Success, Dieter Nijdam

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**I** IT infrastructuur (Ch.5) is composed of several major components. One of these components is computer-hardware-platforms. Mention 4 of the other components and give an explanation with optionally examples of product/companies.

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| **Component IT infrastructure** | **explanation** |
| 1.Operating system platform | An operating system platform is a platform which manages our computer software, hardware and also provides some common features in our computer. The most popular operating systems are Windows 7, Windows 8, Windows 10, Linux or Unix. However, in server level Linux is more popular than Windows whereas for client level the reverse is true. |
| 2.Data management and storage | The way an organization process, store and organize their data is called data management. There are many software for processing these data like Oracle, SQL server, MySQL etc. |
| 3.Networking/Telecommunications platforms | Telecommunications platforms mainly provide voice line, internet access, wide area networking etch services. Linux and windows are the leading network operating system whereas cisco and Juniper are the most popular network hardware provider. |
| 4.Internet platform | Internet platforms include hardware, software and management services to support company’s website including web hosting services, intranets, extranet etc. Most popular internet hardware server companies are IBM,Dell,HP |

**II** Where does the letters of the following terms stand for? (CH5 IT Infrastructure)   
Give an explanation and optionally, give an example, which clarifies the concept

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| **Term** | **Meaning of the letters** | **Explanation / example** |
| **SAN** | Storage Area Network | SAN is a high-speed network dedicated to a storage. It is used in those organizations which need fast local network performance. |
| **SOA** | Service Oriented Architecture | SOA is an architectural pattern which help to communicate between two software for creating a working software. |
| **SaaS** | Software as a service | It allows the users to use cloud based apps over the internet. It follows pay as a go model .That means you have to pay based on your use. |
| **IaaS** | Infrastructure as a Service | It’s a cloud based service where companies rent or lease server, storage ,network resources etc. It also follows pay as you go model. |
| **BYOD** | Bring Your Own Device | It allows employees to take their own devices in their workplace. |
| **XML** | Extensible Markup Language | XML is a powerful and flexible markup language and it is used to described the data. |
| **TCO** | Total Cost Of Ownership | Total cost of ownership is the total of the purchase price and the operational cost. |

**III Give an explanation of the following terms (Ch.6 Databases….) and optionally, give an clarifying example.  
 In case of an abbreviation give also the full meaning**

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| **Term** | **Explanation** |
| **Data redundancy** | Data redundancy is the repetition of data in a single table or an entity. It causes unnecessary waste of storage spaces and makes the file slow. |
| **Data inconsistency** | When same data is present in multiple tables then it is called data inconsistency. |
| **DBMS** | Database management system is a collection of programs which enables its users to access database, manipulate data, and help in representation of data. For example, think about your electricity service provider. They obviously store your data in their database for recording your details so that in future they can easily help you. |
| **SQL** | SQL stands for Structured Query Language. It is one of the most popular language for extracting data from a table and also organizing data in a table . |
| **Datamart** | Datamart is a subset of a data warehouse. Typically it focusses on single subject or line of business. |
| **OLAP** | OLAP is Online Analytical Processing. It’s a multidimensional data processing system. |
| **Datamining** | Datamining is basically the process of finding hidden patterns, relationship in a dataset. |

**IV With the application of datamining various types of information can be obtained. (Ch.6).**

**Give an explanation of the following types of information and give an example of real practice.**

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| **Type information** | **Explanation** | **Example** |
| **Associations** | Association is the most used data mining strategy among the other data mining technique. This technique is used to track the customers’ buying trend. | For example ,you have a trend to buy bread and jelly together from a grocery shop . Next time they will study your data and will keep this together so that you can save your time and they can also increase their sells. |
| **Sequences** | In sequences, events are linked over a period of time. | For example, if you buy a house ,there is a 65 percent chances to buy a refrigerator within two weeks. |
| **Classification** | It recognizes patterns that describe group to which items or variables belongs | For example , two groups of students appeared in the exam. By using this strategy , we can define which group of student passed and failed. |