

MEETING 7

DATABASE ADMINISTRATION

A. THE PURPOSE OF THE LESSON

In the subject you will be able to identify independent clause in an article, understand reading and listening about Database Administration.

B. DESCRIPTION OF MATERIAL

1. Independent Clauses

an independent clause expresses complete thought.

- ✓ She likes working in the lab and learning language programming.
- ✓ Waiting to have finish my study is exciting.
- ✓ She wants to learn language programming and work in famous computer software company.

a. Examples of Independent Clauses Joined Together

- ✓ Playing in computer is a lot of fun, but be able to make game is even better.
- ✓ All of us studied computer, and we agreed it was enjoyable.
- ✓ I checked my email this morning, but I forgot to reply my friend's email.
- ✓ I wish I had a new laptop with high capacity processor, but I can't afford to buy new one this moment, my parents suggest me saving up..
- ✓ Today is Monday and the computer test is Tuesday

b. Example of Semicolons in the Sentences in Independent Clauses

- ✓ Last week, I visited campus this morning; I saw computers fair.
- ✓ I bought new laptop; my friend Dine bought in focus.
- ✓ That is the most wanted computer; Apple phone is the most wanted gadget.
- ✓ Many programmers insist to finish the application before the deadline; they worry of having problem with the new boss.
- ✓ This time is little; the lesson is much.
- ✓ They refuse to do the programming project; they need more complete data.
- ✓ I am grateful; my project is supported by the institution
- ✓ I am going to the labs; I need to check the server connection.
- ✓ The project is big; it needs much energy to finish it.

C. EXERCISES

1. Structure

1.2 Decide whether the underline clause is independent clause or dependent clause and write independent clause or independent clause below the sentence!

Example:

- 1) If you don't fix the error in application, it won't be able to execute.

dependent clause

- 2) While the computer is being fixed, we have type the assignment in café net.

- 3) It important to back up your data, you might have problem with the computer.

- 4) Before you leave computer lab, don't forget to turn off all PCs.

- 5) I can't go to the movie since I have to finish my computer project.

- 6) Whether you have understood the language programming or not, the computer test is today .

- 7) I will stop playing game when my phone is low battery.

- 8) Until I can make computer application, I refuse to stop practicing.

- 9) I made back file it look like the computer need scanning for viruses.

- 10) I will work in financial institution if I am good at SQL.

- 11) Since coding is very important lesson for computer science students we had better practice a lot until before taking the course.

- 12) I want to visit the computer fair since I am interested in computer science.

- 13) When we get at the computer fair I want to look at the displays.

- 14) Even though it takes time to get at the computer fair, I would still like to go.

- 15) When we study hard, the result is awesome.

- 16) In case you need help with your computer course, you can call me for help.

2. Speaking

2.1 work in pair to practice conversation below!

- Adam What do you think of data administrator job? Is it good career?
- Eric I think database administrators are need in many offices'. Yes it very promising career. A company will pay much for DBA
- Adam What skill do I need to be database administrator?
- Eric You have to be good at solving problem, good at analytical skill, be familiar with data manipulating language, and organizational skill.
- Adam How much does an data administrator pay?
- Eric Well if you work is USA you will be paid \$79.120 per year.
- Adam That's a lot!! And what certification do I need to be DBA?
- Eric Try to get oracle DB certified professional or Microsoft SQL server.
- Adam where I can apply DBA job?
- Eric In you can apply job in hospitals, all financial institution, retail business, manufacture firm, computer company and many more.
- Adam I think I need to get Microsoft certification and finish my computer science degree on time.
- Eric Good luck , I am sure you can make it. You are smart.
- Adam Thank you
- Eric Any time



3. Reading

3.1 Underline the independent clause in the reading text below!

3.2 Read and record loud and record the reading text in your phone!

Database Administration

Database administration is the management of database systems (see database management system). Database administration can be **divided** into four broad areas: data security, data integrity, data accessibility, and system development.

Data Security

With regard to databases, ensuring data security **includes** the assignment and control of users' level of access to sensitive data and the use of monitoring tools to detect **compromise, diversion, or unauthorized** changes to database files (see data security). When data is proprietary, licensing agreements with both database vendors and content providers may also need to be enforced.

Data Integrity

Data integrity is related to data security, since the **completeness** and **accuracy** of data that has been **compromised** can no longer be guaranteed. However, data integrity also requires the **development** and testing of procedures for the entry and verification of data (input) as well as verifying the accuracy of reports (output). Database administrators may do some programming, but generally work with the programming staff in maintaining data integrity. Since most data in computers ultimately comes from human beings, the training of operators is also important. Within the database structure itself, the links between data fields must be maintained (**referential** integrity) and a locking system must be employed to **ensure** that a new update is not processed while a pending one is incomplete (see transaction processing).

Internal procedures and external regulations may require that a database be periodically audited for accuracy. While this may be the province of a specially trained information processing auditor, it is often added to the duties of the database administrator. (See also auditing in data processing.)

Data Accessibility

Accessibility has two aspects. First, the system must be **reliable**. Data must be available whenever needed by the organization, and in many applications such as e-commerce, this means 24 hours a day, 7 days a week (24/7). Reliability requires making the system as

robust as possible, such as by “mirroring” the database on multiple servers (which in turn requires making sure updates are stored **concurrently**). Failure must also be planned for, which means the **implementation** of onsite and offsite backups and procedures for restoring data (see backup and archive systems).

System Development

An enterprise database is not a static entity. The demand for new views or applications of data requires the development and testing of new queries and reports. While this is normally done by the database programmers, the administrator may need to **consider** its impact on the operation of the system. The administrator also helps plan for the needs of a growing, changing, organization by designing or evaluating proposals for **expanding** the system, possibly moving it to new hardware or a new operating system or migrating the database applications to a new database management system (DBMS). Because of the importance of database management to corporations, government, and other organizations, data-base administration became a “hot” **employment** area in the 1990s. Most database administrators specialize in a **particular** database platform, such as Oracle or Microsoft Access. The growing need to make databases accessible via the Internet has added a new range of challenges to the database administrator, including the management of servers, remote authentication of users, and the mastery of Java, Common Gateway Interface (CGI), and scripting languages in order to tie the database to the server and user (see Java, cgi, Perl, and xml).

(Encyclopedia of Computer Science and Technology Revised Edition by Harry Henderson page 130-131)

3.3 answer the questions below

- 2) what is Database administration?
- 3) what are the four Database administrations?
- 4) What data security is for?
- 5) Why does data integrity need development and testing of procedures?
- 6) What are the two aspects of accessibility?
- 7) What does failure planned mean?

3.4 Mark the Incorrect for the false statement and Mark correct for true statement!

- 1) Data patent permitted agreements with both database vendors and content providers don't have to be asserted.
☐ correct
☐ incorrect
- 2) Data independent also needs the improvement and trying out of methods for entry and inspection of data as well as checking out the exactness of report.
☐ correct
☐ incorrect
- 3) Database administrators are able to do some programming.
☐ correct
☐ incorrect
- 4) database operators don't need trainings.
☐ correct
☐ incorrect
- 5) Data base need locking system to assure that a new regenerate is not cultivated while a pending one is not finished.
☐ correct
☐ incorrect
- 6) Inside procedures and outside rules may not need that a requisite that a database be occasionally audited for accuracy.
☐ correct
☐ incorrect
- 7) An enterprise database is a static entity.
☐ correct
☐ incorrect
- 8) Data in New application needs the improvement and testing of new queries and reports.
☐ correct
☐ incorrect
- 9) New view or application is done by the database programmers.

4. Listening

4.1 Listen to Sultan Issa Hampton talk about Database Administration function and mark True for true statement and mark False for incorrect statement

- 1) DBA is stand for database administrator.
☐ True
☐ False
- 2) The main job of DBA is ensure that data isn't provided, unprotected from corruption and is not possible to access.
☐ True
☐ False
- 3) DBA or database administrator create hardware and share the operating system for the database server.
☐ True
☐ False
- 4) the DBA handles this **nonstop** maintenance.
☐ True
☐ False
- 5) ETL is Data Extraction, Transformation, and Loading.
☐ True
☐ False
- 6) Charging, transformation and data deprivation appoint to inserting massive number of data that have been taken from many different system into a data storage.
☐ True
☐ False
- 7) The outer data is clean up and omit to adjust the wanted format so that it can be imported into a central repository.
☐ True
☐ False

4.2 Listen again the audio and chose the correct answer below!

- 1) The main job of a database administrator, EXCEPT ..
 - a. Protect database
 - b. Make sure the database is ready
 - c. Data is easy to access
 - d. Delete database
- 2) Database administrator is also able to....
 - a. Install software and Take care of the database
 - b. Make virus
 - c. fix hardware
 - d. sell data
- 3) Hardware is _____ by system administrator
 - a. Deploy
 - b. Set up
 - c. maintain
 - d. fix
- 4) Operating system is _____ by system administrator
 - a. Set up
 - b. Maintain
 - c. disperse
 - d. delete
- 5) For First installation and configuration, DBS often works together with ...
 - a. New Oracle, SQL server
 - b. Linux
 - c. unix
 - d. windows
- 6) When updating and patching are needed in database software, database administrator handle _____ maintenance.
 - a. Nonstop
 - b. Idle program
 - c. used program
 - d. deleted program
- 7) To make the importing big size of data efficient, a database administrator needs..
 - a. ETL
 - b. Oracle
 - c. SQL server
 - d. DBS



<https://www.webopedia.com/TERM/D/database-administrator-dba.html>

5. Writing

5.1 Translate In English the sentences below !

- 1) Seseorang dapat disebut data administrator jika mempunyai tanggung jawab dalam keamanan integritas serta kinerja database, juga terlibat dalam pengembangan dan pemecahan masalah pada pengguna database.

- 2) Database administrator bertugas untuk memastikan keamanan data, pengguna dapat mengakses data secara bersamaan., data jelas dan konsisten.

- 3) Karir seorang database administrator bisa tergantung perusahaan dimana dia bekerja, seorang database administrator bisa sebagai manager proyek, manager jaringan atau bahkan arsitek database.

- 4) Ada beberapa kualifikasi untuk menjadi seorang database administrator diantaranya; lulusan teknologi informatika, mengerti rekayasa perangkat lunak, bisa ilmu matematika, paham ilmu komputer dan mengerti riset operasional.

6. key words**find the synonym and translate them**

English	Synonym	Indonesian
accuracy, Completeness, compromised, concurrently, consider, development, diversion, divided, employment, enforced. ensure, expanding, implementation, includes, includes, particular) referential, Reliable, robust, unauthorized,		

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Pearson Education , NY.