

Database

Leon Andretti Abdillah

01

Introduction to Database

2015

Lecturer's Info

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Position	Associate Professor (Lektor Kepala) Editor in Chief of BiKOM, ICIBA, SEMNASTIK, SEMAGMA, SC-SITI, SNaDIMAS
Faculty	Computer Science (Ilmu Komputer)
Department (Program Study)	Information Systems (Sistem Informasi)
Courses	1. Algorithms & Programming 2. Data Structures and Algorithms 3. <u>Database</u> 4. Knowledge Management Systems 5. Research Methods 6. Human Resource Information Systems (HRIS)

Satuan Acara Perkuliahan (SAP)

1. Introduction to SAP
2. Understanding Data, Database, DBMS
3. Model Database Relational
4. Entity Relationship Diagram (ERD)
5. Database Design
6. Normalization
7. Query
8. Data Definition
9. Data Manipulation
10. Presentations

Sources

1. <https://blog.binadarma.ac.id/mleonaa/>
2. <https://leonabdillah.wordpress.com/teaching/database/>

Rules

- Every student must enroll or register, shown by KRS
- Attendance $\geq 75\%$ (12x)
- Late tolerance /meeting = 15 minutes
- Casual uniform
- Keep your mobile devices silent all the time in the class
- At final exam, each student must wear white shirt and black
- Keep your volume silent all the time in the class

Komponen Penilaian

- Class activities 20% [Questionnaire + Attendance]
- Middle exam 20% [MidTest]
- Reports 20% [Assignments + Presentations]
- Final exam 40% [FinalTest]
- Total 100%

Skor Penilaian

Score Penilaian

No.	Total Score	Nilai	Bobot
1	085 – 100	A	4
2	070 – 084	B	3
3	055 – 069	C	2
4	040 – 054	D	1
5	000 – 039	E	0

5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
																A	A	A	A
													B	B	B				
										C	C	C							
							D	D	D										
E	E	E	E	E	E	E													

Data

- **Data**

- Raw facts (fakta-fakta mentah) such as an employee's name and number of hours worked in a week, inventory part numbers or sales orders.
- Meaningful facts, text, graphics, images, sound, video segments.

- **Information**

- A collection of facts organized in such a way that they have additional value beyond the value of the facts themselves.
- Information: Data processed to be useful in decision making.

- **Metadata:**

- Data that describes data.

Database (Basis Data)

- “a collection of related data” (Elmazri & Navathe, 1994)
- “a collection of data, typically describing the activities of one or more related organizations” (Ramakrishnan & Gerke, 2000)
- “A database system is basically just a computerized record-keeping system. The database itself can be regarded as a kind of electronic filing cabinet; that is, it is a repository or container for a collection of computerized data files” (Date, 2004)
- “an organized collection of logically related data” (Hoffer, J. A., Prescott, M. B., & McFadden, F. R. (2007)



Data Processing

Data

\$35,000 12 Units \$12,000 J.
Jones Western Region
\$100,000 100 Units 35 Units

Data Processing

Information

Salesperson: J. Jones Sales
Territory: Western Region
Current Sales: 147 Units =
\$147,000

Database Management Systems (DBMS)

- Microsoft Access 2013
- Microsoft Visio 2007
- Microsoft SQL Server 2008 | 2014

Homework

1. Set a group discussion consist of 2-3 students for small class (<15 students)), 4-5 students for medium class (20-30 students), or 6-8 students for large class (>30 students)
2. Every student should has a blog (wordpress) by using real name, then create new page (laman baru) of “Database” ATAU “Basisdata”
3. Develop your team project theme based on the information given from several sources (journals, conference proceedings, books, or master theses). You may use one of these sources: a) GOOGLE SCHOLAR (<http://scholar.google.com/>) or b) MICROSOFT ACADEMIC SEARCH (<http://academic.research.microsoft.com/>)

References

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- Abdillah, L. A. (2005). Validasi data dengan menggunakan objek lookup pada borland delphi 7.0. *Jurnal Ilmiah MATRIK*, 7(1), 1-16
- Abdillah, L. A. (2006). Perancangan basisdata sistem informasi penggajian. *Jurnal Ilmiah MATRIK*, 8(2), 135-152.
- Abdillah, L. A. (2012). PDF articles metadata harvester. *Jurnal Komputer dan Informatika (JKI)*, 10(1), 1-7.
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- Elmasri, R., & Navathe, S. B. (1989). *Fundamentals of Database Systems*. San Francisco, California, USA: Benjamin/Cummings.
- Hoffer, J. A., Prescott, M. B., & McFadden, F. R. (2007). *Modern database management (Eighth ed.)*. New Jersey: Pearson Education, Inc.
- Ozkarahan, E. (1990). *Database management: concepts, design, and practice*: Prentice-Hall, Inc.
- Ramakrishnan, R., & Gehrke, J. (2000). *Database management systems*: McGraw-Hill.
- Silberschatz, A., Korth, H. F., & Sudarshan, S. (1997). *Database System Concepts*. New York, USA: McGraw-Hill.