

**FINAL EXAM ODD SEMESTER ACADEMIC YEAR 2022/2023**  
**INFORMATION SYSTEMS STUDY PROGRAM**  
**FACULTY OF ENGINEERING AND INFORMATICS**  
**UNIVERSITAS MULTIMEDIA NUSANTARA**

<b>Subject</b>	: IS545 – Data Warehouse (Lab)	<b>Date</b>	:
<b>Lecturer(s)</b>	: Iwan Prasetyawan, S.Kom.,M.M. Jansen Wiratama, S.Kom., M.Kom. Irmawati, S.Kom., MMSI	<b>Time</b>	: 4 days calendar
<b>Form</b>	: <b>Essay / Project</b>	<b>Type</b>	: <b>Onsite/ Takehome</b>

**EXAM CONDITIONS / INSTRUCTIONS:**

1. Give a straightforward and complete **answer in accordance with the requirements** given to each question (*read all questions carefully, do not rush to answer them*),
2. Please remember! **answer all questions in accordance** with the field of business you choose in **the answers to your IS-545 Theory Final-Test Examination/UAS**.
3. **The answer to UAS IS-545 Data Warehouse is in the form of a journal that contains an analysis of the implementation of the Data Warehouse**, with a writing format that is in accordance with the *general journal writing rules*.
4. The **business case material submitted must not be the same as** the example given in the **lecture material**, if the same case material is found, it will not get a value,
5. If there are several **students with identical UAS answers**, then these **students do not get a score (zero)**,
6. **All your answers are combined into an archive file (.zip)**, which contains the following files:
  - a) Word file containing **screenshots of the Pentaho Workbench** consisting of:
    - i. Fill in the **repository data** used
    - ii. **.XML and .JSP** the OLAP Cube schema produces by Pentaho Workbench.
    - iii. **Illustration of each output** described in accordance with the answers in **chapter III Data Warehouse Theory UAS IS 545**.
  - b) **.KJB file** (job program) and, or **.KTR file** (transformation program),
  - c) **Dataset file** (SOR/input) used in answering the given question
7. The format for naming the UAS IS-545 **answer file** collected is **"NIM-Name of UAS Data Warehouse Lab Odd 2022-2023.zip"** sent via e-learning@UMN according to the schedule for the Final Semester Exam (UAS). has been established.

**COURSE SUB LEARNING OUTCOMES (SUB-CLO):**

<b>SUB LEARNING OUTCOMES (SUB-CLO)</b>		<b>ELO</b>
<b>Code</b>	<b>Description</b>	
CLO-2 Sub-CLO-8	Students are able to <b>apply</b> OLAP technology to provide insight into data through fast, consistent, and interactive access to various possibilities/perspectives and information needs-C3	ELO-C
CLO-2 Sub-CLO-9	Students are able to represent how to design an OLAP cube to <b>identify</b> business analysis needs using Pentaho Schema Workbench-C4;	
CLO-1 Sub-CLO-13	Students are able to extract, combine and convert data to PDI datasets from different sources, as well as <b>transform</b> data at the row level by combining the data values, in different operations. -C3;	ELO-B
CLO-2 Sub-CLO-14	Students are able to <b>manage</b> data that comes from different sources, direct it to alternative streams and load it into the Datamart, including the time dimension, other types of dimensions, and fact tables - C4	ELO-C

**FINAL EXAM ODD SEMESTER ACADEMIC YEAR 2022/2023**  
**INFORMATION SYSTEMS STUDY PROGRAM**  
**FACULTY OF ENGINEERING AND INFORMATICS**  
**UNIVERSITAS MULTIMEDIA NUSANTARA**

**QUESTIONS:**

**1. CLO-2 Sub-CLO-8 and CLO-2 Sub-CLO-9, Weight 50%.**

Displays the output according to the discussion described in chapter III, the answer to UAS IS545 Data Warehouse Theory, by attaching the OLAP Cube Schema file created (.xml and .jsp files).

*Hint: Using the Mondrian Apache Web Application example, edit the index.html and index.jsp files in C:\Program Files\apache-tomcat-7.0.91\webapps\mondrian to match your OLAP output.*

**Assessment rubric (Portfolio):**

RATING	SCORE	ASSESSMENT CRITERIA
Very less	≤ 20	The output of the <b>OLAP Cube Schema</b> presented is <b>irregular and does not match</b> the answers given on <b>UAS IS-545 Data Warehouse Theory</b>
Not enough	21-40	The output of the <b>OLAP Cube Schema</b> presented is <b>less regular and does not match</b> the answers given in the <b>UAS IS-545 Theory</b> of Data Warehouse
Enough	41-60	The output of the <b>OLAP Cube Schema</b> presented is <b>quite orderly and quite in accordance</b> with the answers given on <b>UAS IS-545 Data Warehouse Theory</b>
Well	61-80	The output of the <b>OLAP Cube Schema</b> presented is <b>orderly and in accordance</b> with the answers given on <b>UAS IS-545 Data Warehouse Theory</b>
Very good	≥ 81	The output of the <b>OLAP Cube Schema</b> presented is <b>perfect orderly, in accordance and more innovative</b> with the answers given on <b>UAS IS-545 Data Warehouse Theory</b>

**2. CLO-1 Sub-CLO-13 and CLO-2 Sub-CLO-14, Weight 50%.**

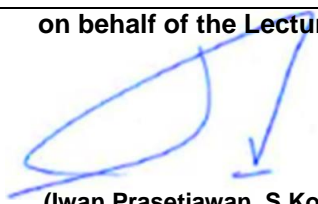

Build a solution from the ETL process that you have described in the discussion of chapter III, the answer to the Data Warehouse Theory UAS IS545 Theory, by attaching the PDI Spoon programming that was created.

**Assessment rubric (Portfolio):**

RATING	SCORE	ASSESSMENT CRITERIA
Very less	≤ 20	The <b>ETL process</b> given is <b>irregular and does not match</b> the answers given in the <b>UAS IS-545 Data Warehouse Theory</b> answer
Not enough	21-40	The <b>ETL process</b> given is <b>less regular and does not match</b> the answers given in the <b>UAS IS-545 Data Warehouse Theory</b> answer
Enough	41-60	The <b>ETL process</b> given is <b>quite regular and in accordance</b> with the answers given in the <b>UAS IS-545 Data Warehouse Theory</b> answer
Well	61-80	The given <b>ETL process</b> is <b>systematic, in accordance</b> with the answer to the <b>UAS IS-545 Data Warehouse Theory</b> , and can be implemented.
Very good	≥ 81	The <b>ETL process</b> given is <b>systematic, in accordance</b> with the answer to the <b>UAS IS-545 Data Warehouse Theory</b> , can be implemented <b>and innovative</b>

**FINAL EXAM ODD SEMESTER ACADEMIC YEAR 2022/2023**  
**INFORMATION SYSTEMS STUDY PROGRAM**  
**FACULTY OF ENGINEERING AND INFORMATICS**  
**UNIVERSITAS MULTIMEDIA NUSANTARA**

---

References:	Created by:	Approved by:
1. Lecture Materials I to XIV 2. Teaching Reference Book	<b>on behalf of the Lecturer Team</b>  <u>(Iwan Prasetiawan, S.Kom., M.M.)</u> Course Coordinator	 <u>(Ririn Ikana Desanti, S.Kom., M.Kom.)</u> Head of Study Program