

**INFORMATION SYSTEMS STUDY PROGRAM
FACULTY OF ENGINEERING AND INFORMATICS
UNIVERSITAS MULTIMEDIA NUSANTARA
EVEN SEMESTER ACADEMIC YEAR 2021-2022**

IS545 – DATA WAREHOUSE

WEEK #14^{Supplement} – Journal and Data Warehouse Implementation

Iwan Prasetiawan, S.Kom., M.M.

WEEK #14^{Supplement}

Journal and Data Warehouse Implementation

THEME DESCRIPTION

- a. Journal Layout
- b. General Format
- c. Data Warehouse (explanation) Implementation

Implementasi *Data Warehouse* Menggunakan Pentaho BI di IS-545 Data Warehouse

Nama_mahasiswa

Program Studi _____, Fakultas _____, Universitas

Multimedia Nusantara

Jl. Scientia Boulevard, Gading Serpong, Tangerang, Banten - 15811 Indonesia

Email address Mahasiswa

Abstract

IS-545 Data Warehouse is one of the biggest Company in Indonesia, but currently does not have a This research aims to provide a proposed solution in the form of designing and implementing The implementation will use an open source application of are used to facilitate The data is made in a design to facilitate the application of the data warehouse design and system designs that have been made.

Keywords: Pentaho BI, Data Warehouse, Data Warehouse Analysis, Business Intelligence,

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Low-cost and Portable Process Control Laboratory Kit

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Abstract

The purpose of this study was to demonstrate a new design of low-cost and portable laboratory kit that is prospective for supporting teaching and learning on the automation process. The kit consists of the water tank filling system (size of 50 mL; as a model for describing realistic tank in the plant) equipped with a programmable logic controller (PLC) integrated with SCADA system, human machine interface (HMI) monitor, reservoir, temperature, water level sensors, mixer, and heater. To be adaptable in any types of classroom, the kit was placed on the portable table (length x width x height of 100 x 50 x 150 cm). To approach the industrial tank system in industry, the tank was designed to be mixed and connected to other tank, and the temperature and water volumetric (water level) was controllable. To examine the impact of the designed kit on the improvement of teaching and learning process, the problem based learning (PBL) approach was also conducted in class. The economic analysis result showed that the present kit is inexpensive and portable, compared to other commercially available kits/devices. The PBL results showed that the kit is simple and to give better illustrations for students to comprehend the process control system in the realistic application in industry. Further developments of this kit is potentially implemented as an experimental tool for undergraduate students.

Keywords: control system prototype, water tank filling systems, programmable logic controller, SCADA system, problem based learning

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Penulisan Karya/Artikel Ilmiah

- Tulisan yang mengungkapkan buah pikiran, yang diperoleh dari hasil pengamatan, penelitian, atau peninjauan terhadap sesuatu yang disusun menurut metode dan sistematika tertentu, dan yang isi dan kebenarannya dapat dipertanggungjawabkan (**Parlindungan Pardede**).
- Tulisan yang berisi laporan sistematis mengenai hasil kajian/penelitian yang disajikan bagi masyarakat ilmiah tertentu, yang merupakan audiens khusus dengan tujuan menyampaikan hasil kajian dan kontribusi penulis artikel kepada mereka untuk dipikirkan, dikaji kembali, dan diperdebatkan, baik secara lisan ataupun secara tertulis (**Halda Aditya**).

Penulisan Karya/Artikel Ilmiah

Artikel ilmiah:

Pada dasarnya ditandai setidaknya-tidaknya oleh:

- a. hasil penelitian atau kajian,
- b. dilakukan oleh seorang atau tim,
- c. penulisannya mengikuti kaidah atau tata cara ilmiah,
- d. disajikan kepada publik melalui jurnal atau pertemuan ilmiah.

Apabila artikel ilmiah yang ditulis akan **diterbitkan melalui jurnal ilmiah**, maka penulis artikel haruslah **mengikuti format** atau **pedoman penulisan** yang ditetapkan oleh **pengelola jurnal ilmiah**

Penulisan Karya/Artikel Ilmiah

Ciri-ciri Karya/Artikel Ilmiah *(Sardy S.)*

- a. menyajikan fakta atau fenomena secara objektif tentang alam, teknologi, sosial, dan seni/budaya secara sistematis dan logis,
- b. bersifat orisinal, kreatif, dan handal,
- c. menggunakan metode ilmiah sesuai dengan konsensus ilmu pengetahuan selingkung-bidang,
- d. teruji melalui verifikasi dan falsifikasi, baik untuk hasil penelitian eksperimental, maupun non-eksperimental,
- e. menghasilkan temuan/model/terminologi/koreksi baru/tesis atau teori, dan
- f. bermanfaat bagi kesejahteraan dan peradaban manusia.

Sistematika/struktur Penulisan Karya/Artikel Ilmiah

➤ Didasarkan atas **hasil penelitian**

- Judul atau topik (dapat berbentuk pernyataan/pertanyaan).
- Abstrak ditulis satu spasi, (sekitar 150-300 kata) diikuti dengan kata-kata kunci.
- Pendahuluan (alasan memilih judul atau topik, kedalaman dan keluasan materi yang akan dibahas, dan tujuan).
- Kajian literatur (membahas pokok-pokok pikiran yang tercermin dalam rumusan judul/topik).

Sistematika/struktur Penulisan Karya/Artikel Ilmiah

➤ Didasarkan atas **hasil penelitian**

- Metodologi penelitian (rancangan/model, sampel dan data, tempat dan waktu, teknik pengumpulan dan analisis data.
- Hasil penelitian dan pembahasan.
- Penutup (kesimpulan dirumuskan berdasarkan hasil analisis data; dan rekomendasi/saran).
- Pustaka Acuan (hanya mencantumkan acuan yang digunakan di dalam uraian).

SISTEMATIKA PENULISAN KARYA ILMIAH (MAKALAH)



Get Success for UAS





Explain the **background** and **business processes** of the business that will meet their needs through the solution of a Data Warehouse implementation.



Planning solutions for solving problems and business needs that might occur in business operations, for example: answering / **providing answers** to online **analysis or reporting** needs.

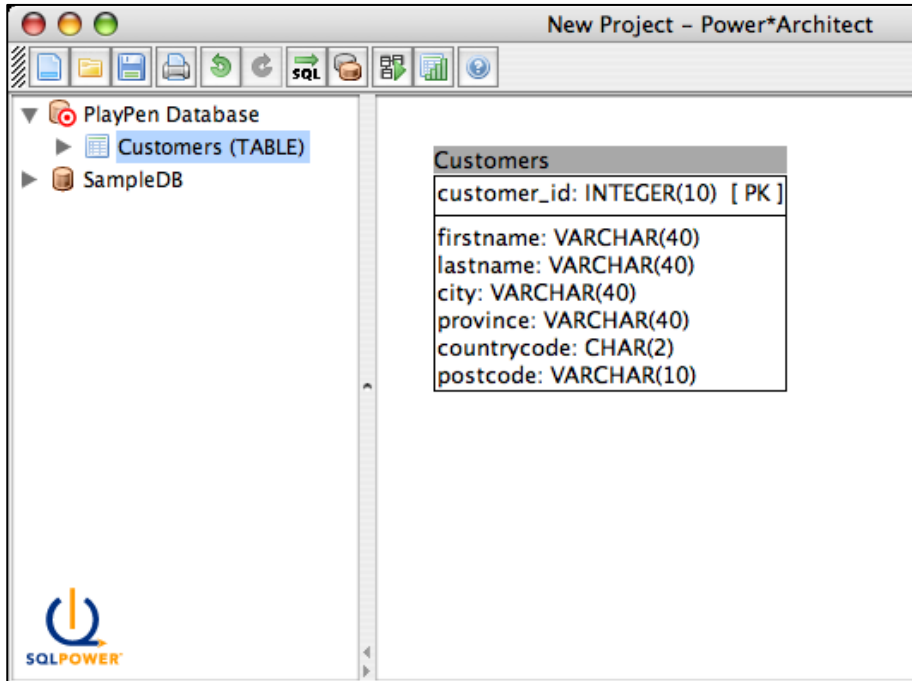


Minimally **design dimension tables** and **facts**
and **describe the schema** (can be star schema,
snowflake or ERD).

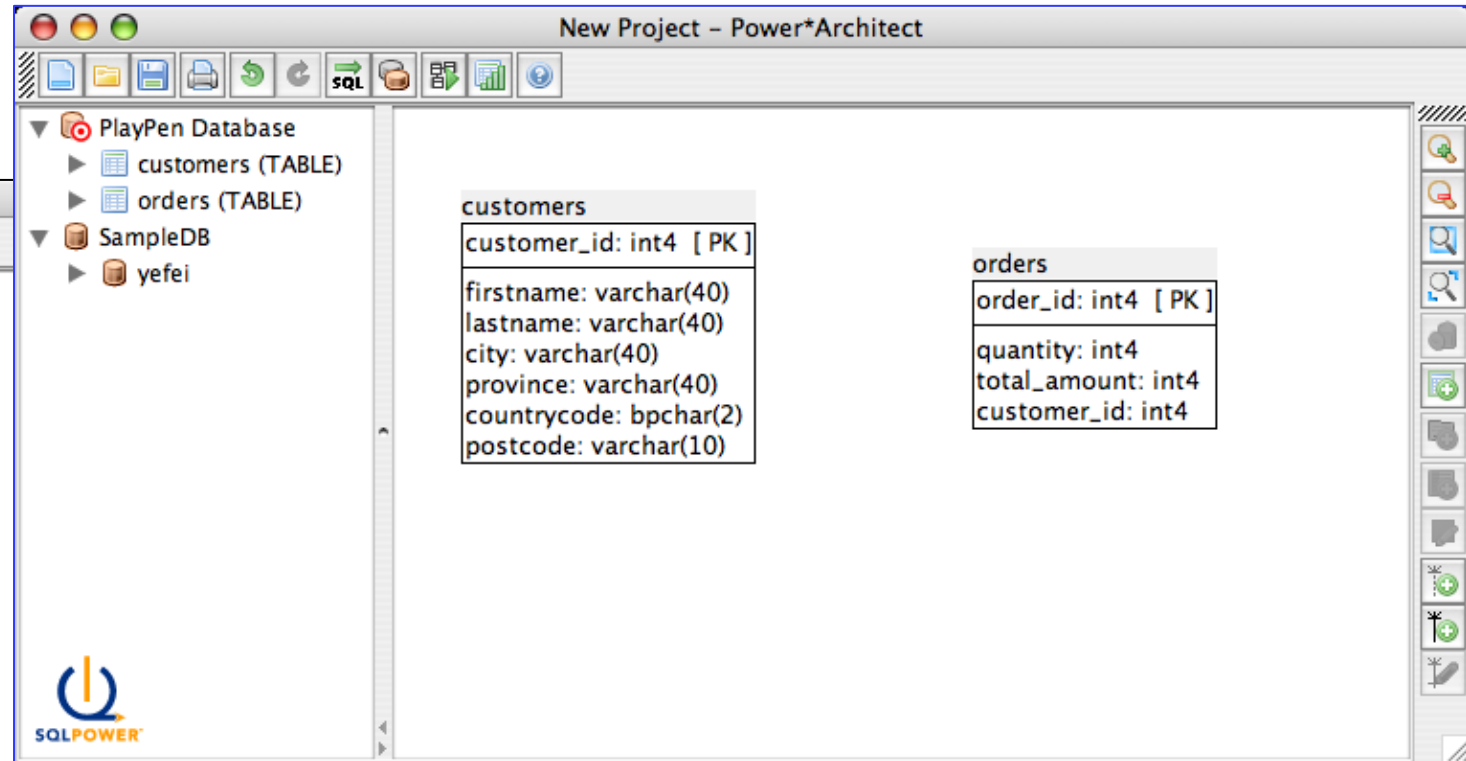


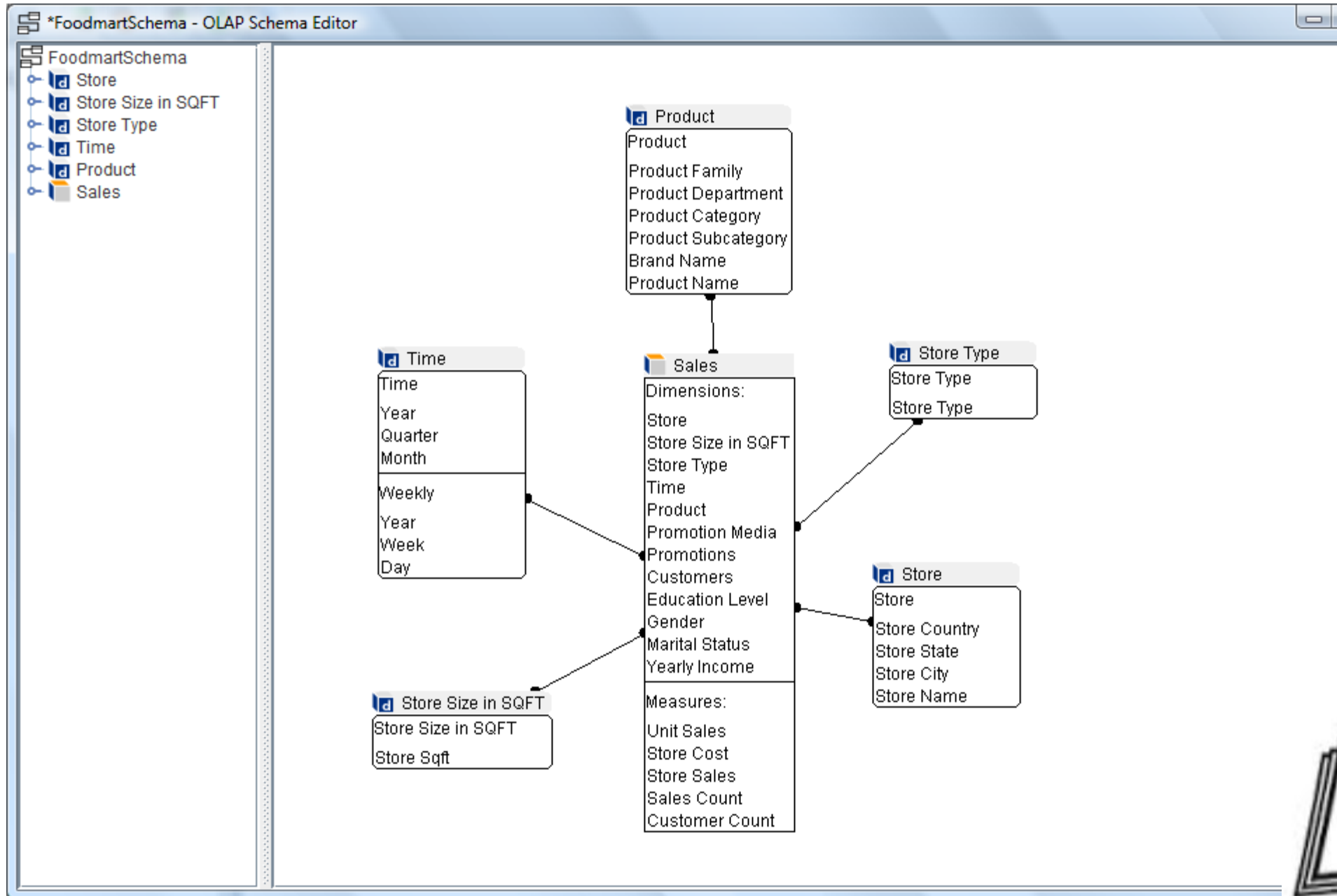
Insert additional columns for Firstname, Lastname, Address, City, Province, Country Code₁ and Postal Code.

The table should look something like the following:



Create columns named order_id (in the primary key), Quantity, Total Amount, and customer_id.
your project should now look something like the following:







as Described in the data warehouse life cycle
that the end result of a data warehouse
solution is to be presented to the
presentation layer in the form of **reports or
analysis** applications or **business intelligence**.

localhost:8080/mondrian/testpage.jsp

Sakila Rental's Cube



	Measures
Customers	Rental Counts
- All Customers	16,044
+ Not Active	404
+ Active	15,640

Slicer:



Slicer:

Rental Counts.

[back to index](#)

localhost:8080/mondrian/testpage.jsp

Sakila Rental's Cube



Chart Properties

Chart Type

Vertical Bar

Enable Drill Through

Chart Title

Chart Title Font

SansSerif

Bold

18

Horizontal axis label

Vertical axis label

Axes Label Font

SansSerif

Plain

12

Axes Tick Label font

SansSerif

Plain

12

30°

Show Legend

☒ Bottom

Legend Font

SansSerif

Plain

10

Show Slicer

☒ Bottom

Left

Slicer Font

SansSerif

Plain

12

Chart Height

300

Chart Width

500

Background (R, G, B)

255

255

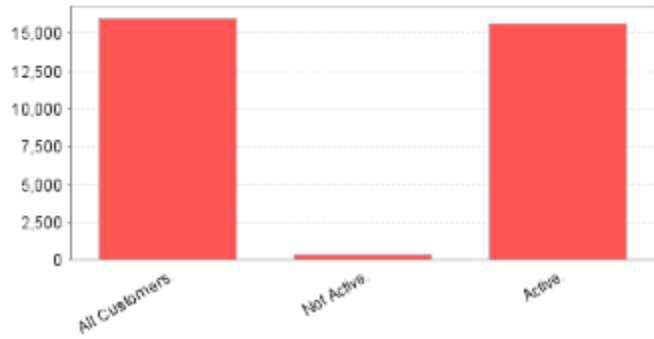
255

OK

Cancel

	Measures
Customers	Rental Counts
- All Customers	16,044
+ Not Active	404
+ Active	15,640

Slicer:



Slicer:

Rental Counts.

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JOURNAL AND DATA WAREHOUSE IMPLEMENTATION

