INFORMATION TECHNOLOGY AND DATABASE DESIGN SMIFF CELL PHONE



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2022/2023

PREFACE

First of all, the writer wants to express our thanks to God, because of His bless and

grace, the paper entitled "SMIFF CELL PHONE" can be finished on time.

This paper is a requirement to fulfil the assignment from Mrs. Verni Juita. . SE M.Com (Adv),

Akt, The lecturer of Information Technology and Database Design in Accounting Departement

of Andalas University. The writer also thanks to her for all the guidance to complete it.

In completing this paper, the writer faced many problems, but with the help of many

people, all the problems could be passed. May God give the blessing for them. This report

provides the intrinsic elements in "SMIFF CELL PHONE" with detail explanation. Although

this paper has many flaws in the arrangement and explanation, we as the writer hope that it can

be used as a reference for the reader to understand the intrinsic elements of a short story.

Padang, December 5th 2022

The Writer

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CHAPTER I INTRODUCTION

1.1 Background of The Paper

The development of the world sometimes has a positive effect on human progress itself, especially in the field of communication. Today, communication technology is increasingly developing and advancing, various communication tools with advanced technology have been widely used by various groups of people. Mobile phones or better known as HP (handphone) are one of the communication tools that are being favored by many people. At first, the use of mobile phones was only by certain people who had the ability to buy them, bearing in mind that at that time the price of mobile phones was still very expensive. But now, wherever we are, we can easily find people who have cellphones and that is a common sight. Over time, cellphones are not only used as a communication tool, but also as a multimedia like a small computer which is often referred to as a smartphone. Smartphones have a special appeal in all circles, both from children, teenagers, and parents. Smartphones are the right solution for communication in this era because of sophisticated technology, not a few people often change their smartphones because they want better facilities to keep up with the times, and the number of cellphone users is increasing from year to year. Producer big handphone phones such as Samsung, Nokia, Xiaomi, Sony, Oppo, Iphone and others are competing improve the quality of each product in order to attract consumer interest. In this condition the business opportunities related to handphone are very wide open and promising, in this opportunity the author tries to open a counter business handphone by the name "SMIFF CELL PHONE ".

"SMIFF CELL PHONE" is a counter business handphone that serves the purchase of handphone, tablet, electronic watch, and other similiar items which will be explained in the next chapter." SMIFF CELL PHONE" is a company built by four people. "SMIFF CELL PHONE" was founded in October 2021th. At the beginning of pioneering, "SMIFF CELL PHONE" had its address at Rohana kudus street No 3. Then in October 2022th "SMIFF CELL PHONE" moved to Minangkabau street No 5 with the reason that it is more easily accessible to consumers throughout the city of Bukittinggi. "SMIFF CELL PHONE" is open every day from 10.00 to 22.00 western Indonesian time.

The problem that occurs with "SMIFF CELL PHONE" is the recording of notes that are still being received handwritten so note-taking is less effective and efficient. The three incoming and outgoing consumer data do not yet exist, and can only be checked consumer data from notes so that consumer data is still in process or has been completed processing cannot be recognized by "SMIFF CELL PHONE". Finally the results of the damage diagnosis are not came out at that time because the damage check was carried out carefully so that the results the diagnosis of damage is right, so consumers have to come another day to ask go straight to the service center so you can find out information on cellphone damage.

Therefore the author makes database. The database is used to collect the data that is managed based on certain interrelated provisions so that it is easy to process. "SMIFF CELL PHONE" parties can be seen through the database of goods that are still processed or has been processed by checking the goods out and the goods that are still processed.

1.2 Problem Identification

The problem identification of the article is How to aplicate database system on "SMIFF CELL PHONE"

1.3 Purpose

Purpose of writing this article is:

- 1) To make "SMIFF CELL PHONE" easier in running a business
- 2) Creating database aplication for helping the "SMIFF CELL PHONE"
- 3) Making the "SMIFF CELL PHONE "more bigger business scale

1.4 Problem Limitation

The problem limitation that will be identificate is:

- 1) Using Microsoft Access to process the data.
- 2) Involve relationship, querry, form, and report as a basis.

CHAPTER II THEORITICAL UNDERSTANDING

2.1 Definition of Database

Data is an uncooked and unorganized truth, this is required to be processed to make it meaningful. Data may be easy on the identical time unorganized until it's far organized. Generally, statistics contains facts, observations, perceptions, numbers, characters, symbols, images, etc.

A database is a systematic or organized collection of related information stored so that it can be easily accessed, searched, managed, and updated. All data is stored here. It's like a library with a lot of books in different genres.

2.2 Database Management System (DBMS)

2.2.1 Definition of Database Management System (DBMS)

A database management system, or DBMS for short, is software designed to manage very large amounts of data. DBMS is also designed to manipulate data more easily. Data storage in the form of a database has many advantages over data storage in the form of a flat file, including better performance, integrity, independence, centralization and security.

2.2.2 Purpose of Databse Management System (DBMS)

The following are some of the purposes for which a DBMS is used:

- 1. So that the database can be used together.
- 2. To make the data access process easier and faster.
- 3. Irritating data storage space.
- 4. Help maintain data security.
- 5. Prevent and eliminate data duplication and inconsistency.
- 6. The high amount of data is large.

2.2.3 Types of Database Management System (DBMS)

In its application, there are several types of DBMS software that are often applied to manage company databases, namely among others:

1. MySQL

The first DBMS software is MySQL, which is widely used because it is available free of charge. So this application is suitable for growing businesses.

2. Oracle

This device has a wide range of features that can meet the flexibility demands of large enterprises. Even this device also has transaction processing with very high performance. But unfortunately this application is paid (not free).

3. Microsoft SQL Server

Microsoft SQL Server has a good data security system and features back up, recovery and data rollback. This DBMS software is also suitable for application in large company computer network systems because it has the ability to manage large data.

4. Firebird

Firebird offers features that comply with SQL-2003 and ANSI SQL-99 standards and can work on Windows and Linux OS.

2.3 Definition of Primary key, Relationship, Table, Form, Querry, and Report

2.3.1 Primary Key

A primary key, also known as a primary keyword, is a key in a relational database that is unique to each record.

2.3.2 Relationship

Relationships are diagrams that connect information between tables. This helps avoid redundant information and ensures information consistency across tables. Relationships also help users create reports. One-to-one relationships are the most common.

2.3.3 Table

A table is a central database object. It consists of fields (columns) and rows. Their purpose is to store information. The purpose of all other database objects is to interact in some way with one or more tables.

2.3.4 Form

Forms allow users to easily enter, retrieve, view, and print information stored in spreadsheets. A form is basically a window in which controls can be placed to provide information to the user or to accept information entered by the user. You can view forms in Form view, Datasheet view, or Design view.

2.3.5 Querry

You can search for specific information stored in one or more tables by building a query that specifies the parameters of the information to search for.

2.3.6 Report

Information recorded in a spreadsheet can be viewed on a computer screen or on paper in a well-formatted, easily accessible report. Reports can contain information items selected from multiple tables and queries, values calculated from information in a database, and formatting items such as headers, footers, titles, and headings.

2.4 Business Profile



SMIFF CELL PHONE

"SMIFF CELL PHONE", a business that provides goods and services.

Items sold include mobile phones, tablets, smart watch, and accessories. Services offered in the form of repair of cellphones, tablets, and smartwatch.

Address:

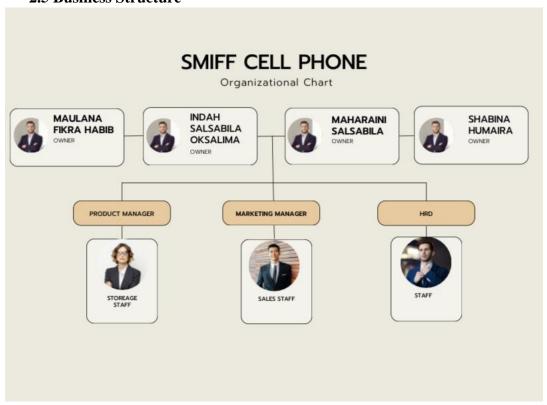
Since:

2: (+62) 875889042

⊠: smiffgudget@gmail.com

• https://smiffgudget.co.id

2.5 Business Structure



2.6 Business Activity

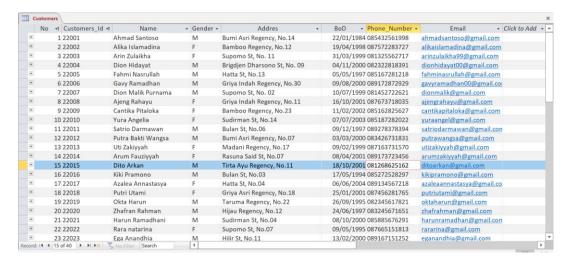
- a) Provide the best service to our customers
- b) Trade goods that are guaranteed quality and authenticity
- c) Ensure that the items sold are sealed before they reach the buyer
- d) Pick up or purchase goods from trusted suppliers

CHAPTER III EXPLANATION

The following are things that are needed in Access to create a database of "SMIFF CELL PHONE":

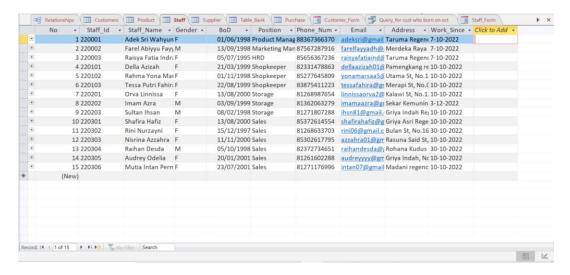
3.1 Table

1) Table of Costumers



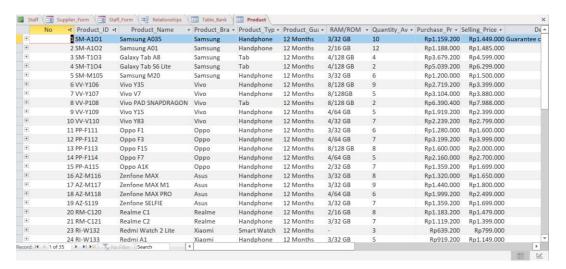
We create this table to collect data from each costumers which serves to clarify sales data to make it easier to record and bookkeeping. In the table of customers, we need information of costumer id, costumer name, costumer gender, costumer address, birthday of costumer, costumer phone number, and costumer email. Like BoD field, it can help us to know about costumer birthday which later the data is used to make claims on discounts determined by the company.

2) Table of Staff



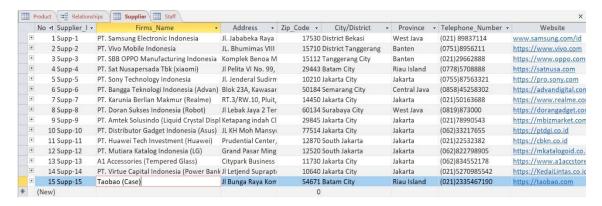
We create this table to collect data from each staff. In this table, we need information about staff id, staff name, gender of each staff, birthday of each staff, staff position, staff phone number, staff email, staff address, and when staff start working. Like phone number field, it can help us to know about staff phone number if there is an error in the sales transaction.

3) Table of Products



This table is used to collect data about what products are provided by the company and the amount of each product. In this table, we need information about product id, product name, product brand, product type, product guarantee, RAM/ROM of product, quantity of product, Purchase of product, and selling price of product. Like product id, it's really important because that can make staff easier to found the brand, type, and series that costumers need.

4) Table of Supplier



We create this table to collect data from each supplier that is useful when supplying products. In the table of Supplier, we need the information about supplier id, suppliers name, firms name, address, Zip code of firms, City/District of firms, Province of firms, Phone number of firms, and the website. Like number phone, we need to know phone number of firm to enable us to contact our suppliers in the event that the shipment of goods or anything else related to the delivery of goods is prevented.

5) Table of Bank

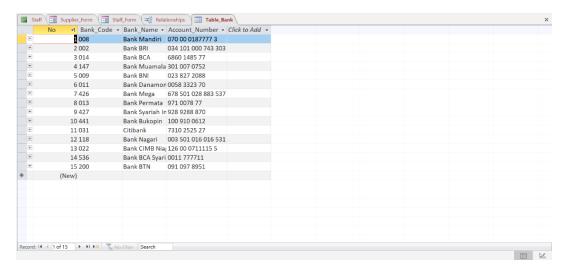
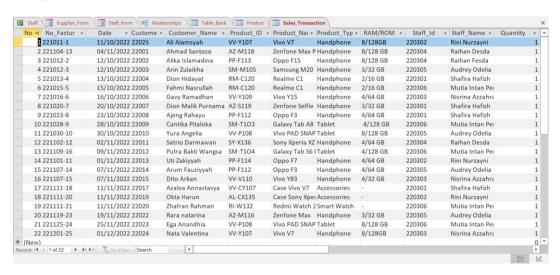


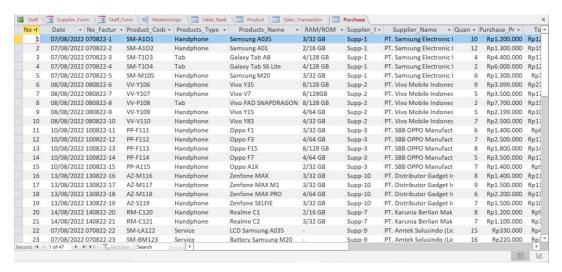
Table of bank are used to facilitate the recording of purchases by customers using a debit or credit cards. In this table, we need information about code of each bank, name of the bank, account bank.

6) Table of sales transaction



This is one of two connector table that we have. We create this table to collect transaction data that occurs in the company. The data in this table include number of factur, date of the transaction, customers id, customer name, product id, product name, product type, RAM/ROM of the product, staff id, staff name, quantity, price per quantity, total, payment method, bank code, bank name, warranty activation, and warranty period.

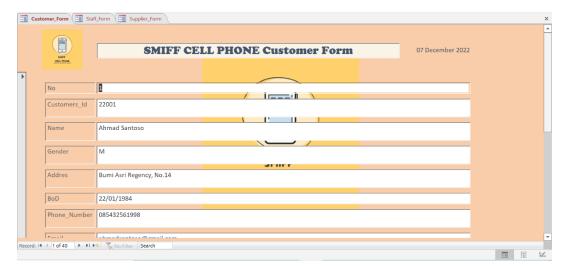
7) Table of Purchase



This two of two connector table that we have. We create this table to to collect data on purchases of products by companies. The data in this table include date of purchase, number of factur, product code, product type, product name, RAM/ROM of the product, supplier of the product, supplier name, quantity, price per purchase, total, staff id, and staff name.

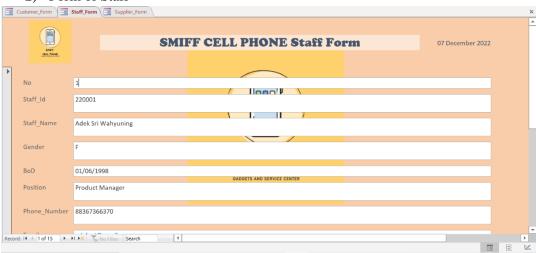
3.2 Form

1) Form of Costumers



This form is made to make it easier for companies to collect data on each customer who buys goods.

2) Form of Staff



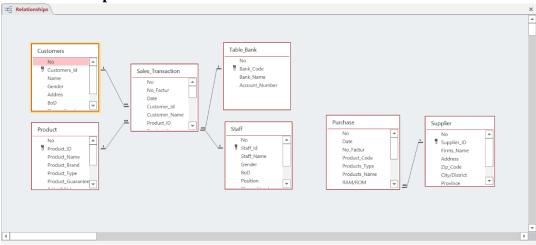
This form was created to make it easier for companies to record every employee in the company.

3) Form of Supplier



Form of supplier is created because it can make easier to company to record each supplier that the company trusts in stocking goods.

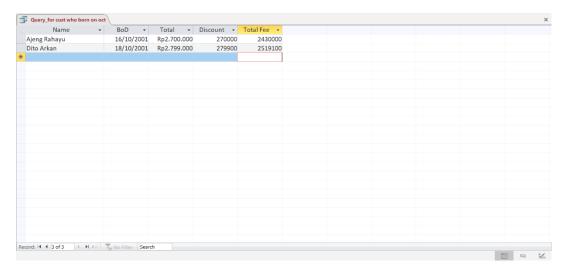
3.3 Relationship



Relationship is a diagram that connects one field to another field that has a certain relationship using the primary key that is in each field.

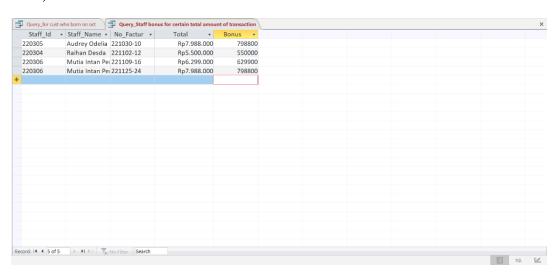
3.4 Querry

1) For customer



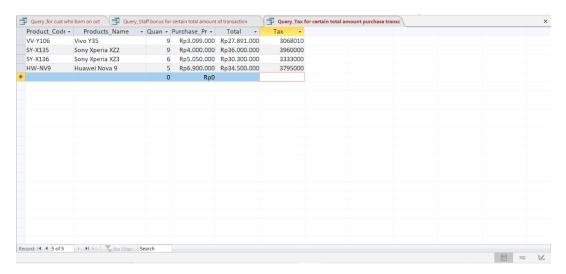
Querry for customer is the discount that company gift to customers born in october. The data include customer name, birt of date of customer, total purchases, dicount that company give, and total fee that customer must pay.

2) For staff



Querry for staff is the bonus that company gift to staff who sell more than a certain number of transactions. The data include staff id, staff name, number of factur, total of salaries, and the bonus that company give.

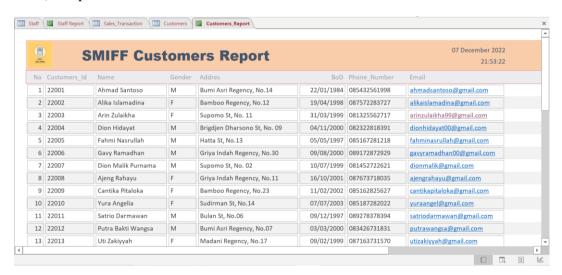
3) Tax



This querry is the tax that company must pay because of purchases. The data include product code, product name, quantity, purchase per price, total of purchases, and tax.

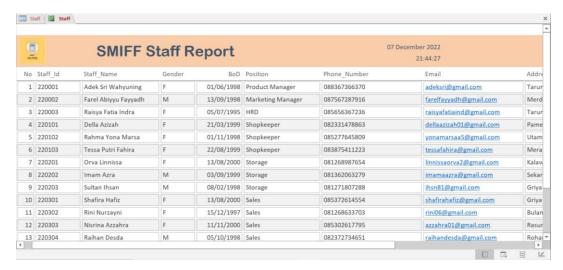
3.5 Report

1) Report of Customers



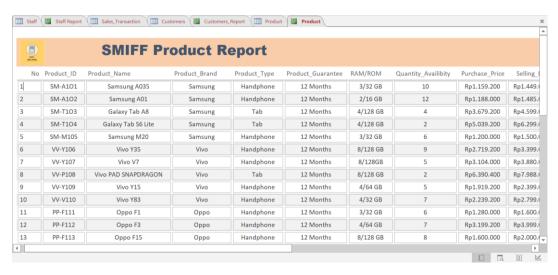
Report of customer is made to make it easier to present reports to customers within the company.

2) Report of Staff



Report of staff is made to make it easier to present reports to staff within the company.

3) Report of Products



Report of product is made to make company easier to present reports of product.

CHAPTER IV CLOSING

4.1 Summary

Based on the results of the practice of the business plan database and the discussions that have been carried out, it is concluded as follows:

- 1.It is less difficult to processing the records through the database
- 2.Using the database now will **not** take long or many times to controlling the business
- 3.We can create form without delay from the database
- 4. The records may be set up orderly

4.2 Suggestion

Based on our practice, We want every company to create or maintain a business database to facilitate business record keeping and operations. Based on experience, without creating a database, companies and businesses will find it difficult to operate and process transactional data.