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Chapter 1: Introduction

Chapter 1 discuss the relevance and importance of database in the organization and to your chosen company, explain the RDBMS platform or software used in the project (eg. MySQL, MS Access, MS SQL Server, etc.), it's advantages in the implementation in the company, identify the problems and constraints of the current database and briefly explain the objectives of the proposed database.

Chapter 1 aims to identify the relevance of your project, explain, and develop the differences of the current and proposed database of your project.

Chapter 2: Current Database Management System

A. Narrative Description of the Existing Database
B. Problems Encountered in the Existing Database
C. Suggested Solutions

Examples of existing or current databases
- spreadsheet
- files saved in the computer such as msexcel or tables in msword
- paper-based or manual database

Problems using manual or traditional databases
- Redundancy
- Duplication of data or the storing of the same data in more than one place
- Difficulty accessing related data
- Limited security
- Size limitations

Dental Appointment RDBMS
Problems:
1. Unorganized dentist schedule
2. Missing or Cluttered Files

Suggested Solution/s:
1. Develop a relational database management system for dentist schedule and
2. Develop a RDBMS for the missing and cluttered files

Chapter 3: Proposed Database Management System

A. Narrative Description of the Proposed Database
< Explain the proposed database>

B. Definition of the Tables
<Define the structure of the table (screenshot from the Design tab or Query editor).>

Example Only:

Rep Table

	Column Name	Data Type	Allow Nulls
🔑	RepNum	varchar(10)	☐
	LastName	varchar(50)	☑
	FirstName	varchar(50)	☑
	Street	varchar(50)	☑
	City	varchar(50)	☑
	State	varchar(50)	☑
	Zip	varchar(50)	☑
	Commission	smallmoney	☑
	Rate	decimal(3, 2)	☑

Customer Table

	Column Name	Data Type	Allow Nulls
🔑	CustomerNum	varchar(50)	☐
	CustomerName	varchar(50)	☑
	Street	varchar(50)	☑
	City	varchar(50)	☑
	State	varchar(50)	☑
	Zip	varchar(50)	☑
	Balance	smallmoney	☑
	CreditLimit	smallmoney	☑
	RepNum	varchar(10)	☑

C. Table Relationship (E-R Diagram)
   <Screenshot of the E-R diagram from MS SQL Server application>

   Example

Rep
- 🔑 RepNum
- LastName
- FirstName
- Street
- City
- State
- Zip
- Commission
- Rate

Customer
- 🔑 CustomerNum
- CustomerName
- Street
- City
- State
- Zip
- Balance
- CreditLimit
- RepNum

Orders
- 🔑 OrderNum
- OrderDate
- CustomerNum

OrderLine
- 🔑 OrderNum
- 🔑 PartNum
- NumOrdered
- QuotedPrice

Part
- 🔑 PartNum
- Description
- OnHand
- Class
- WareHouse
- Price
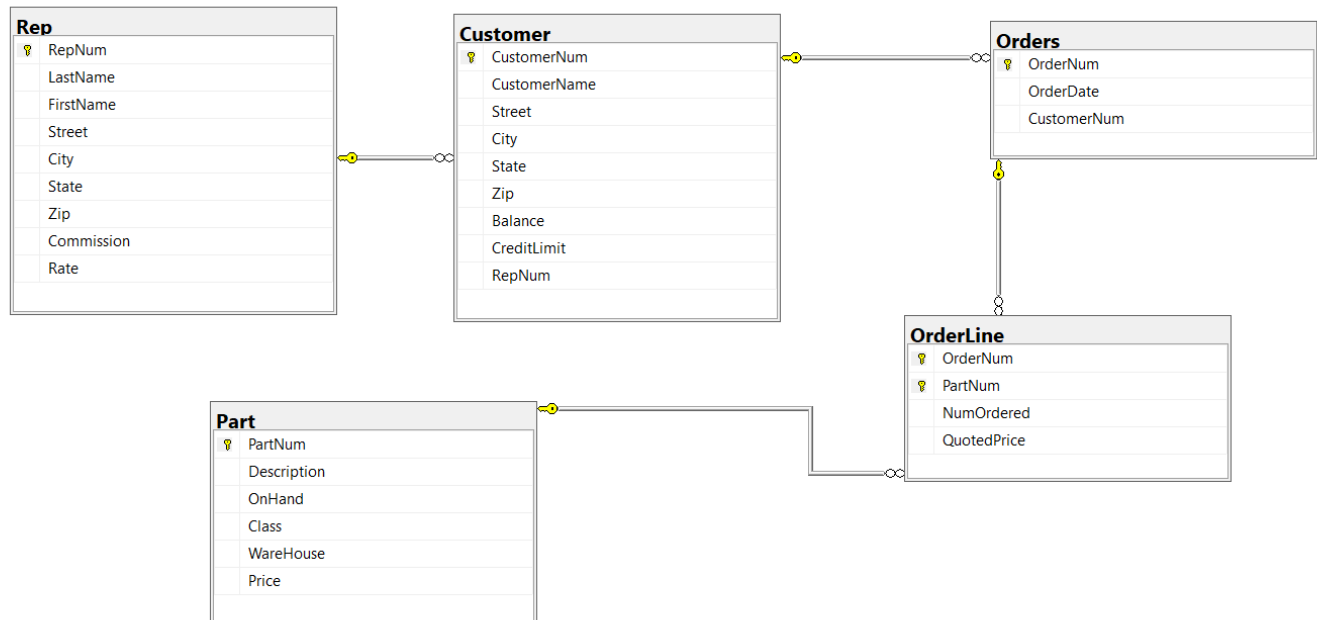
D. Queries using MS SQL Server

Requirements for SQL Queries
(Minimum of two queries per item)

- Single SQL Queries
- SQL with WHERE Condition
- SQL Compound Conditions (AND, OR, NOT)
- SQL Computed Fields
- SQL WHERE Application with a Range Search
- SQL WHERE Application with a Pattern Search
- Using LIKE Operator
- Using IN Operator
- Using Sorting Queries
- SQL GROUP BY and HAVING Application
- Using SQL Functions (AVG, Sum, Max, Min, Count, Rollup, ISNULL)
- Joining Two Tables
- Joining Multiple Tables
- Alter Table Structure
- Creating New Table in the Existing Table

- Insert New Data to the New Table
- Delete Data to the New Table
- Update Data to the New Table
- Foreign Key Constraints

* Display the SQL Code and the Results

Example Only:

- **Single SQL Queries:**

1. List the number, name, and balance for all customers.

SQL Code and Result

```
Select CustomerNum, Customername, Balance
FROM Customer
```

	CustomerNum	Customername	Balance
1	148	Al's Appliance and Sport	6550.00
2	282	Booking Direct	431.50
3	356	Ferguson's	5785.00
4	408	The Everything Shop	5285.25
5	462	Bargains Galore	3412.00
6	524	Kline's	12762.00
7	608	Johnson's Department Store	2106.00
8	687	Lee's Sport and Appliance	2851.00
9	725	Deerfield's Four Seasons	248.00
10	842	All Season	8221.00

- **Foreign Key Constraints**

1. Delete Customer 148 from the database.

SQL Code and Result

```
DELETE
From Customer
WHERE CustomerNum = 148
```

Messages
Msg 547, Level 16, State 0, Line 1
The DELETE statement conflicted with the REFERENCE constraint "FK_Orders_Customer".
The conflict occurred in database "PremiereHello", table "dbo.Orders",
column 'CustomerNum'.
The statement has been terminated.

Completion time: 2022-06-21T09:39:09.4791656+08:00

- **Group By Queries**

1. Group the record of sales rep in the Premiere Products database. What is the average balance of each sales rep and count the number of customers of each representative? Sort by sales rep number.

SQL Code and Result

```
-- Example 23
SELECT RepNum, Count(CustomerNum) AS CountCustomer, AVG(Balance) AS AverageBalance
FROM Customer
GROUP By RepNum
ORDER By RepNum
```

RepNum	CountCustomer	AverageBalance
20	3	9177.6666
35	4	2203.9375
65	3	3767.6666

Chapter 4: Conclusion and Recommendations

- Conclusion

- Recommendations

Appendix   Individual Task Breakdown

- Individual Tasks Breakdown (list down each member's tasks)
- Be specific as possible in enumerating the task you contributed

(Sample Only)

Name	Contribution to the Project
Villoso, Shen	- Editor of the video presentation - Crafted and edit chapter 1 - Contributed questions in Queries (Group by, Make Table, Simple Queries)
Yac, Jana Alyssa	- Crafted and finalized the Conclusion and Recommendation in the Documentaion - Participated in the virtual and offline group discussions and meetings - Finalized the Project's Documentation - Acted as the overall point person of the group
Balisoro, Fiona Maxine	- Conceptualized and finalized the Conclusion and Recommendation in the Documentation - Acted as the group's leader/representative and submitted the Final Project requirements - Make Chapter 2 and 3 - Edit the Video Presentation
Querijero, Reynier	- Participated in the virtual and offline group discussions and meetings - Provided and suggested ideas in the creation and execution of the Video Presentation

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LIST OF SAMPLE DATABASES

Online Appointment Database Management System for <name of company>
Application Database Information System for
Online Election Registration Database Management System For
Online Appointment Database Management System For
Job Order Request Database Management System for
Online Reservation Database Management System For
Purchasing Management Database for
Catering Services Database Management System for
Pet Grooming Service Request Database Management System for
Reservation Database Management System for
Sports Apparel Database Management System for
Rental Database Management System for
Job Order Request Database Management System for
Food Catering Database Management System for
Reservation and Payment Database Management System for
Appointment and Payment Database Management System for
Ordering Database Management System for