TOPLEXIL ENGINEERING CONSULTING

EXEARIO BOSCAN

IST 659 Data Administration Concepts and Database Management

Final Project

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***Summary***

Toplexil is an engineering consulting company located in Midland, TX and has been operating since January of 2019. Currently Toplexil has a small client portfolio composed of companies in the oil industry. Toplexil offer Chemical Technologies, Artificial Lift Technologies, Drilling Technologies, and Digital Solutions. Toplexil’s current data is being directly managed by stakeholders using an outdated system where all proprietary information is being stored in a share drive. This share drive is compartmentalized in several folders named after each technology and service provided and do not allow the sharing of information to benefit the overall success of the organization. After a careful review by the stakeholders and taking into consideration all business aspects, it was decided to create a database that will promote information sharing to keep track of all business transactions.

***Stakeholders***

The stake holders included in this proposal are the two owners, technologies and digital solutions department managers, human resources manager and information technology personnel. The establishment of the proposed database will enhance business functions information sharing, profitability and organizational goals. All employees will have the ability to access their respective department’s database to provide the best service to customers.

***Business Rules***

* A customer can request more than one or more service.
* A customer can place one or more orders.
* A department employee can review orders.
* A department manager can approve an order.
* A service contains service details.
* A service status updates the service.
* A service makes up an order detail.
* A type of service is included in the order detail.
* A service payment is paid to the company.
* An order creates an invoice.
* An invoice payment completes the invoice.
* An invoice status updates the invoice.

***Glossary***

**Customer** is a company that requests a service from Toplexil.

**Service** is a transaction provided by Toplexil.

**Order** is placed by the company requesting a service from Toplexil.

**Order Status** can be either Open or Closed.

**Manager** is an employee that can approve an order made to a department.

**Invoice** document with order details

***Conceptual Model***

Graphical user interface, application, Teams

Description automatically generated

***Logical Model***

Graphical user interface, application, Teams

Description automatically generated

***Physical Database Creation***

I was able to successfully create six tables in accordance with Part 1 of my project.

A picture containing text

Description automatically generated

Text

Description automatically generated

A picture containing text, indoor

Description automatically generated

A picture containing text, electronics, computer, display

Description automatically generated

A picture containing graphical user interface

Description automatically generated

A picture containing schematic

Description automatically generated

A picture containing calendar

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***Data Creation***

I believe I linked the tables under the wrong FKs as I had difficulties inserting data into. The only successful table where I inserted data was the CUSTOMER table. Lesson learned as I continue to learn how to manipulate data with SQL.

A picture containing text, indoor

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