

Transition Technologies



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Introduction of the Team

- ▶ Bryan Arnold
- ▶ IL-Hwan(Andy) Kim
- ▶ Brooke Schapiro
- ▶ Vivian Salako
- ▶ Floyd Brown
- ▶ Wilfredo Sandoval
- ▶ Barret Margin

Client Info

- ▶ Della Schapiro of Della's Design Solutions
- ▶ Creates graphic designs for project requests
- ▶ Sponsored our group Transition Technologies'

Current Business Analysis

- ▶ Della Schapiro receives requests for various graphic design
- ▶ Requests are made through email communication
- ▶ The services and options offered are website graphics, custom graphics design,

Current System Analysis

- ▶ Consists of a Microsoft Word document with all project information such as costs and hours
- ▶ The data is manually inputted and updated according to the requests made
- ▶ The data from the document is used to create an invoice.

Benefits and Costs

Microsoft Access - Option 1			
Objectives		Hours Required	Cost
Buy license		0	\$110
Install in-house machine		15	\$900
Analysis and Design		50	\$3,000
GUI Design		30	\$1,800
Test GUI		10	\$600
Build and design application		40	\$2,400
Test application and debug		20	\$1,200
Train operators		5	\$300
Transfer existing data		10	\$600
Test database		10	\$600
Total Cost		190	\$11,510
UH Discount Total			-\$11,510
Total Cost			\$0

Microsoft Azure - Option 2			
Objectives		Hours Required	Cost
Buy license		0	\$0
Install in-house machine		16	\$640
Analysis and Design		60	\$2,400
GUI Design		30	\$1,200
Test GUI		10	\$400
Build and design database		40	\$1,600
Test application and debug		20	\$800
Train operators		5	\$200
Transfer existing data		15	\$6,750
Test database		10	\$400
Total Cost		208	\$14,390
Discount			-\$14,390
Total Cost			\$0

Project Approach

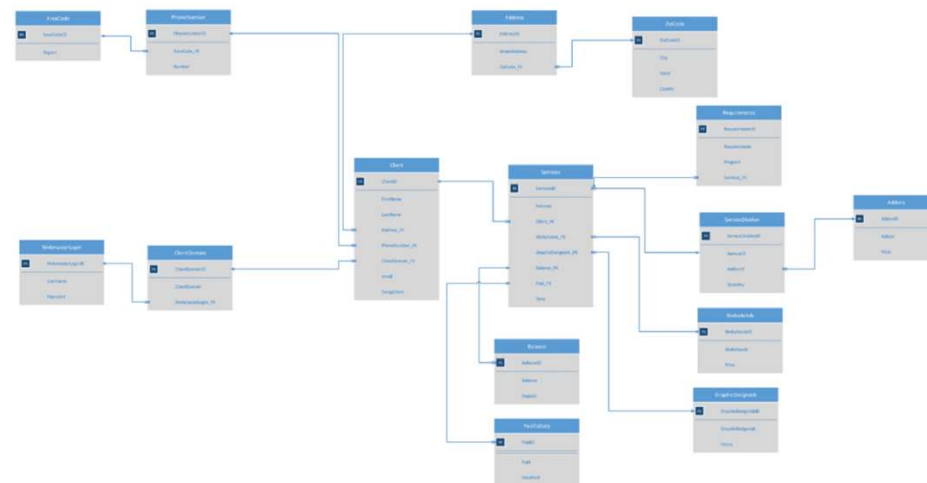
- ▶ The SQL server is installed onto the required machines for the database development and can be accessed from the campus network.
- ▶ The business rules used for Della's Design Solutions' database is clarified and adjusted for the requirements of the project.
- ▶ The created ERD contains at least 15 tables that are in the correct data type with foreign and primary keys assigned according to the business rules
- ▶ The client and services data are loaded onto the database to test the connections between tables and insure that data can be retrieved
- ▶ Each person creates 5 queries that are useful to the client which results a total of 35 unique queries for the group.
- ▶ At least one view is required and is relevant to our business problem when demonstrated. The virtual table based on the results of the SQL statement.
- ▶ At least one triggers is created that serves as a type of stored procedure is executes when a certain event occurs
- ▶ Created stored functions that pull information that is relevant to the customer
- ▶ We then implement the database onto the school network server and test the database for any problems that may need to be fixed
- ▶ Implement any required fixes

Testing process – System Objectives

- ▶ Used SQL Server 2017 Management Studio to test database
- ▶ Used Azure for additional testing phases
- ▶ Testing phase divided into two phases
- ▶ The database and the GUI
- ▶ The database connections and data are validated
- ▶ The GUI is tested with the database to verify that data input is successful

Database Design

- ▶ Tables
- ▶ Descriptions
- ▶ Relevant Business Queries
- ▶ Valid User Defined Functions
- ▶ A Stored Procedure
- ▶ All Valid Connection



Maintenance

- ▶ Back up data
- ▶ Check database integrity
- ▶ Shrink database

Project Improvements

- ▶ Providing better results to the end user for clearer understanding
- ▶ To make more functionality when it comes to calculating the customers cost
- ▶ To be able to see different views of the database and make sense of the information

Lessons Learned

- Some functions had to be cut
- Time restraints
- Keep the scope small
- Keep data dictionary updated
- Client cannot always get what they want

Project Summary

- ▶ Della Schapiro needed a new database system to keep all records of her projects.
- ▶ The problem with her current system is the that it is created on a word doc which must be manually updated
- ▶ Our solution is shaped from the analysis of Della's Design Solutions' business model and what is required.
- ▶ All project details and options are broken down

Project Demo

