DBMS l FINAL PROJECT

Future Builders Credit Union// Apex Credit Union. Websites used to gather info. <https://apexcreditunion.us/en/home.php#one>

https://apexcredituniontt.com/

\*\* This can be adjusted

***Phase 1***

About Our Company

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About Future Builders Credit Union

The Vision of Future Builders Credit Union is “*Where people are worth more than money*”. Their purpose is *We aim to provide financial products and services to enhance the lives of our members and assist them in achieving their financial goals, while maintaining the credit union’s financial stability*. Future Builders Credit Union has four offices island wide. They have multiple departments including:

* Consumer Loans
* Loan Protection Insurance
* Vehicle Mortgage
* Administration

The users are made up of Admin, tellers, and department heads.

The company, Future Builders Credit Union, allows its members to access loan transactions in person. Such as Consumer Loans, Vehicle Mortgage and Loan Protection Insurance. However, wants to expand their offerings to include Share Savings, Savings Deposit, Investment Services, and Pension Services all of which should be online. To apply for any of the transactions listed, customers must first provide the following information. Two Forms of Identification, Job Letter, Pay Slip, Utility Bill and a Completed Membership Form.

The Membership form required basic information needed to distinguish customers. These are First Name, Middle Name, Last Name, Nationality, Place of Birth, Date of Birth, Gender (Female/Male), Marital Status (Single/Married/Common-law/Divorced/Widowed), Residential and Mailing Address, Phone number, Email address. For customers who are children the Name of parent and school of child are required.

Future Builders Credit Union Business Rules:

* The customer must fill out a membership form
* The customer must provide proof of identification
* The customer can apply for any type of transaction

Problem Definition

Future Builders Credit Union came across some problems while observing their systems. Some of which included each branch stores its data locally. The current system uses a Centralized Database in which they have manual backups to vault systems. The software used on their computers is Microsoft Access which limits their range. There is no online processing of the customers information. Customers are restricted to one type of transaction for their name, as they only offered loans. The customers were limited to the local demographic only.

This information was gathered after attending site visits of the different branches; meetings with persons in managerial positions and providing a survey to acquire path and requirements needed for future improvements.

Database Objectives

Objective:

The proposed system shall globalize the customer information using a distributed database system. Incorporating the use of an SQL Database that has a 128-bit AES Encryption. This will also allow for expansion with new branches that will access the same data.

1. Increase the update reflection for customers data, reduce the redundant data being processed by the online systems.
2. Allow both local and international customers to create more than one transaction with their account and store the data respectively. Expand the offerings offered by the credit union to branch out from only loans, to include savings, investments and pensions with the use of retail, mobile and online banking systems.
3. Allow customers feedback on the system to improve the products available and identify opportunities

Goal: Allow all branches to have a faster processing time per customer and reflect data in a shorter period.

Aim: To store customer data in a distributed database while incorporating scalability.

Purpose: For each branch to have better access to the database without the use of redundant information.

The new system shall interface with the online cloud storage for backup and new banking system. The new system shall share data with the online banking system.

Scope

Database Specifications:

Each Branch will have access to the database. In the respective branches the Management will have access to all areas. However, the tellers will only have access to the specific transactions they deal with.

Customer Information:

* First Name
* Middle Name
* Last Name
* Nationality
* Place of Birth
* Date of Birth
* Gender (Female/Male)
* Marital Status (Single/Married/Common-law/Divorced/Widowed)
* Address (Residential and Mailing)
* Phone number
* Email address

For customers who are children the following fields are added:

* Name of parent
* School of child

Boundaries:

Limitations of Future Builders Credit Union included that currently they have both outdated hardware and software which will need to be updated to accommodate the new system as the company hasn’t updated their systems since 2016. The budget proposed by their CEO was 500,000 to 1,000,000 bracket including software updates but not inclusive of hardware updates. This is considered a low budget to cover their system.