



Case Study

Bank of Montreal offers personal and commercial banking, global markets and investment banking services to more than 12 million customers. It caters to such a huge customer base with financing clients' growth and innovation through services including bank accounts, credit cards, mortgages, loans, investing & insurance.

Industry | Fintech



Project Overview

The banking industry is a key driver of the global economy, contributing approximately 6.2% to the US GDP in 2020. It employs over 17 million people (about the population of New York) in the US alone and 1.1 million in the UK. Leading banks manage trillions of dollars in assets, with ICBC's total assets exceeding \$5.3 trillion (about \$16,000 per person in the US) as per Forbes.

In recent years, the world has witnessed the boom of digital banking with an increase of 20-50% in 2020. The industry operates under stringent regulations, such as the Basel III framework, ensuring stability and customer protection.

These statistics underscore the banking industry's economic significance, employment opportunities, digital transformation, and commitment to regulatory compliance. Bank of Montreal is already the 8th largest in North America by assets, and one of the prime reasons is the best user experience. On top of providing financial & investment services, the application is ranked #1 in Canada for digital money management.



Xeltec inherited Bank of Montreal, a banking network on a legacy framework, and had to swiftly migrate it to prevent operational and network risks. Recognizing the urgency, Xeltec found a solution to ensure a smooth and secure transition.





Key Findings

Following are the key findings of the project;

- **Functional Debt**

Engineers at Xeltec realized there was a functional debt in the system causing negative impact on the user interface resulting in subpar user interactions and difficulties in navigating through the system.

We reverse engineered the protocols to understand how business works and how to maximize the user experience.

- **Legacy Application**

Bank of Montreal was based on a Legacy application which was limiting the security and safety of the users. There was a cut-off time by Google for the legacy based applications, so the only possible solution was to convert it to a more stable structure.

Problem Statement

During the journey, Xeltec faced the following challenges;

1 Legacy Based Application

Bank of Montreal was using an outdated Legacy based application for which there was a cut-off time by Google. Migrating the whole structure into a different architecture was a major challenge.

2 Silverlite Framework

Silverlite Framework had major drawbacks for Bank of Montreal. Some of them are:

- The framework wasn't able to fully utilize the protocols
- It wouldn't configure some APIs which increased functional debt
- Limited browser & plugins access means reduced support



Implemented Solution

For the above-mentioned problems, Xeltec implemented the following solutions:

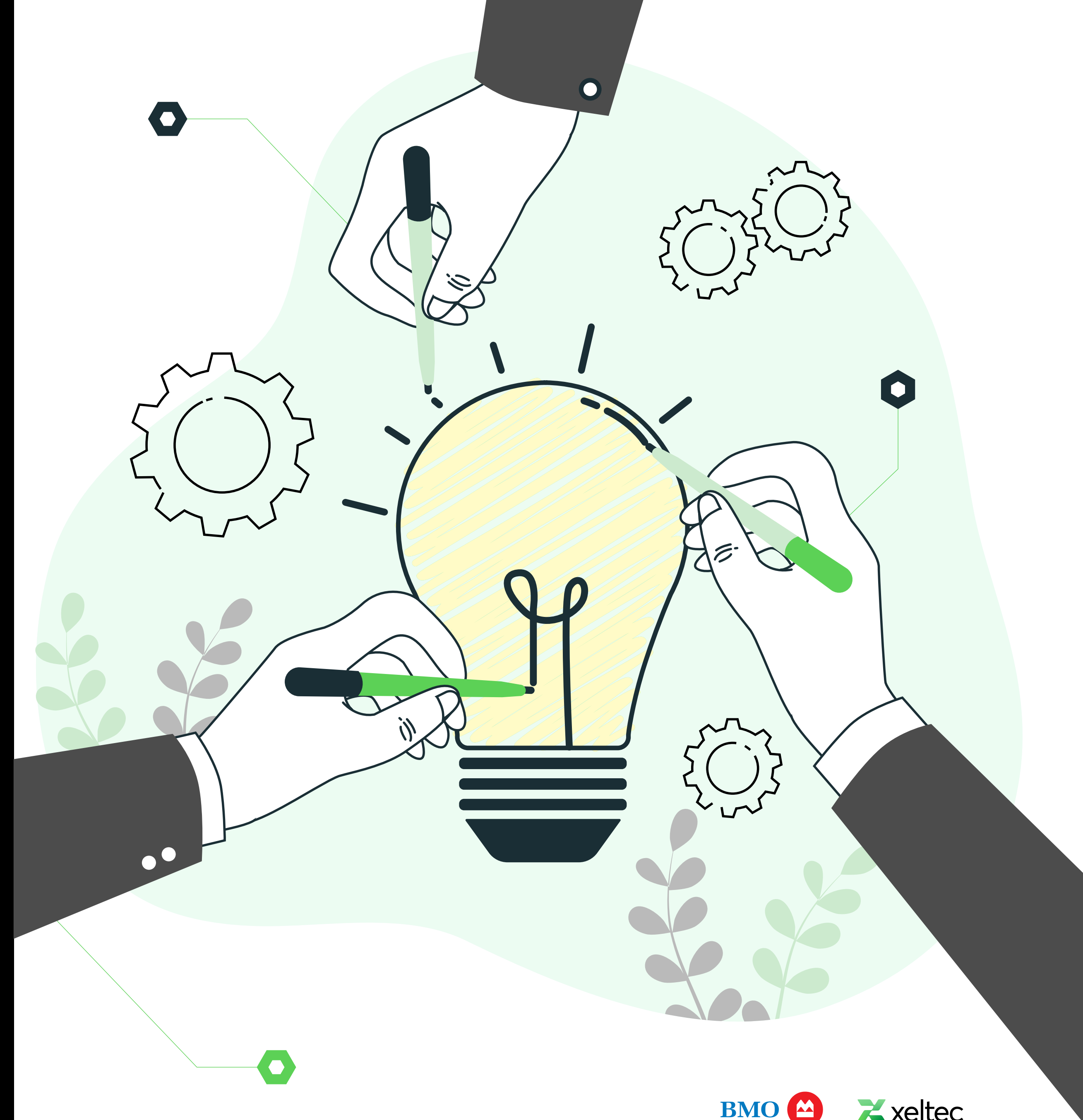
1 Migration to **Angular Framework**

We migrated the Legacy framework to a single angular framework which solved major problems including:

- Better Performance
- Enhanced User Experience
- Code Maintainability and Reusability

2 Functional **Protocols**

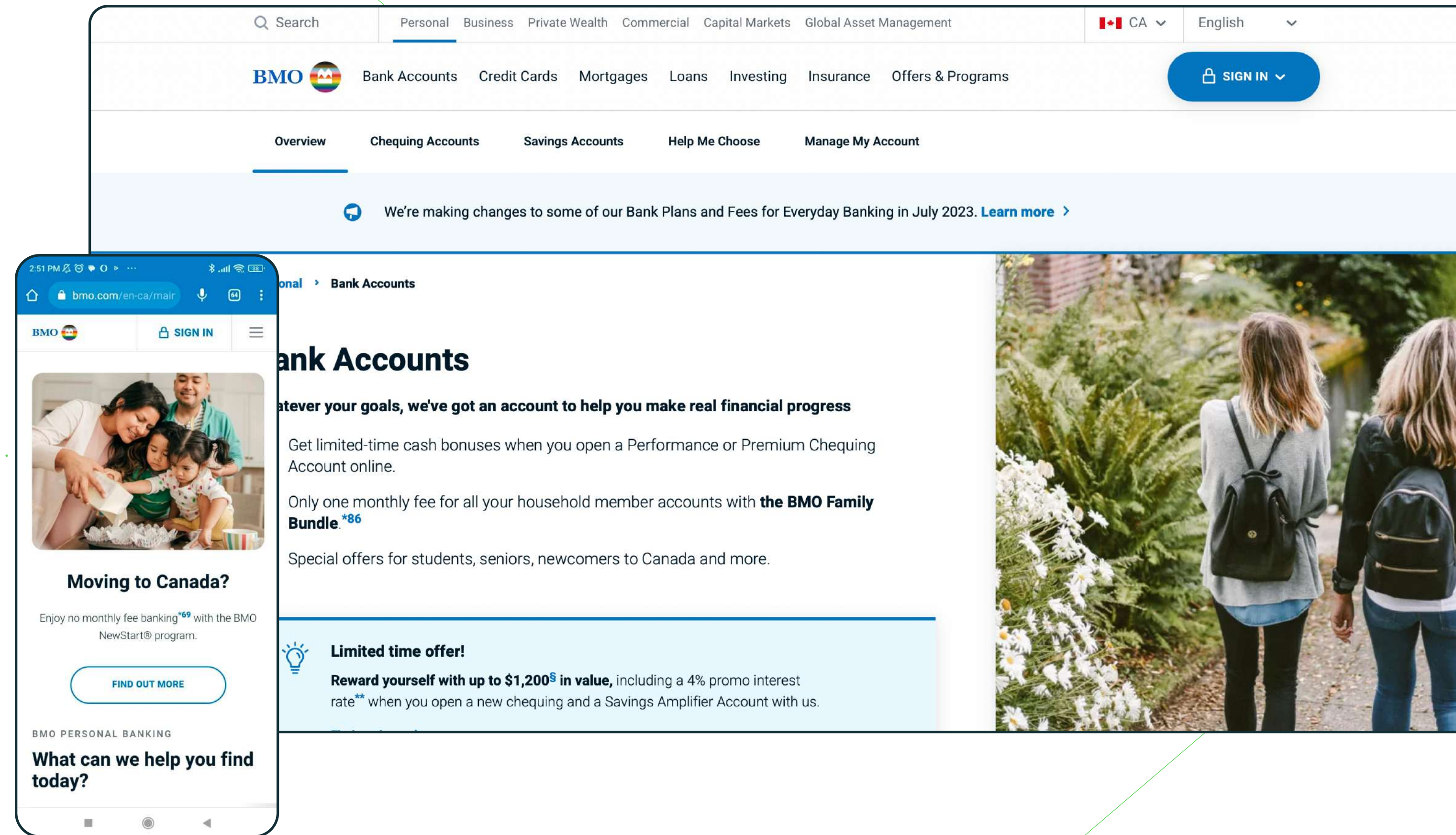
Angular leverages the capabilities of modern web browsers & plugins, offering full capability of the application. Functional protocols ensure maximum compatibility across different browsers.



Results

Shifting from a legacy framework to Angular offered several benefits for Bank of Montreal. Here are some key pointers on how this transition can helped:

- Enhanced Performance
- Code Maintainability
- Futureproofing
- Improved user experience



Tech Stacks



Web link: <https://www.bmo.com>



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