



Tecnológico
de Monterrey



CapitalOne



Balance by Capital One

Adaptive Financial Management Platform (AFMP)

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COMPANY OVERVIEW



Tech company that happens to be a bank

Capital One is a diversified financial services holding company with a significant national presence, operating across three primary segments:

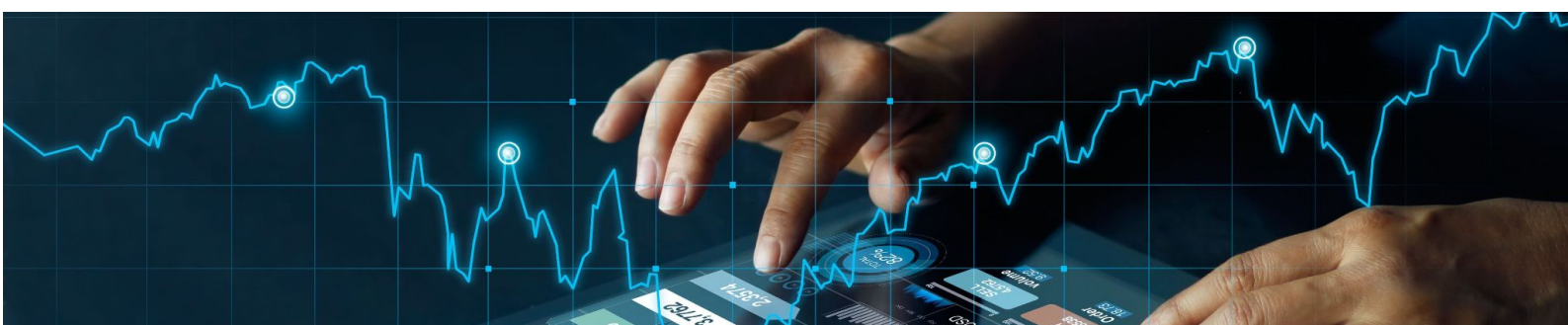
- Credit Card Services
- Consumer Banking
- Commercial Banking

Strategic Positioning & Differentiation:

Capital One distinguishes itself through a technology-centric business model. The company leverages robust data analytics and digital innovation to drive customer acquisition, risk management, and product personalization. This is complemented by its unique "Café" network, which reimagines the traditional branch experience by integrating banking services with a modern, customer-focused environment.

In Summary:

Capital One has strategically evolved from a pioneering credit card issuer into a prominent, technology-driven financial institution, effectively competing across the consumer and commercial banking landscapes.



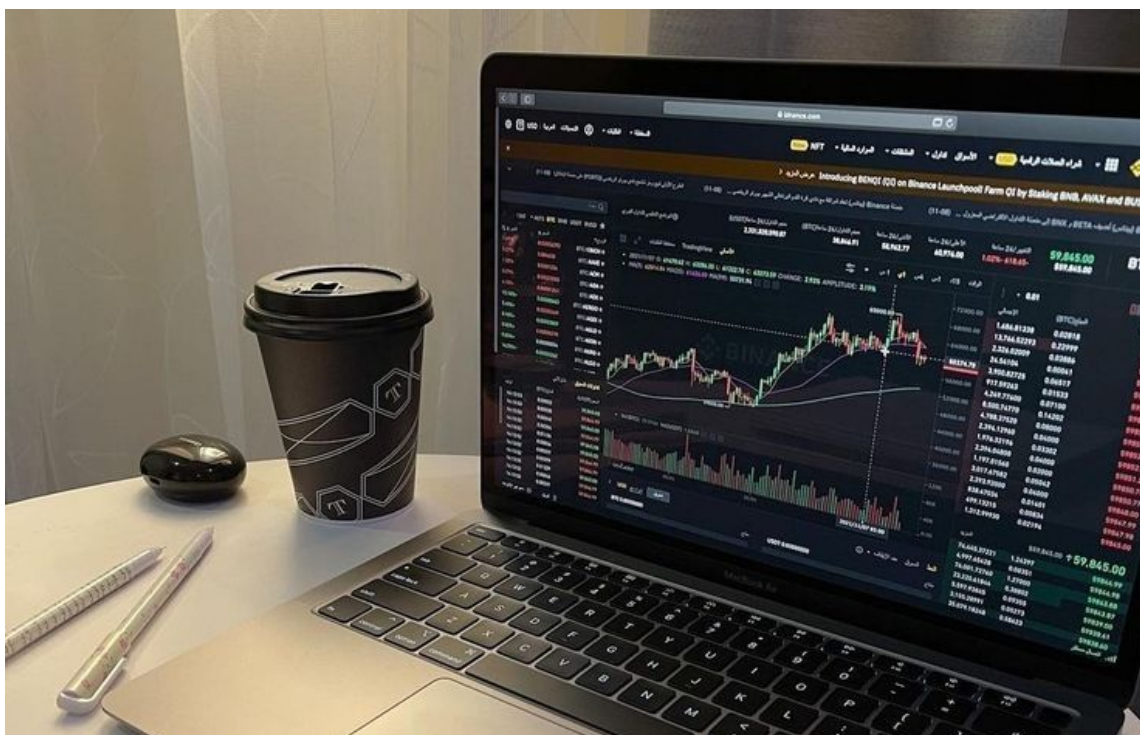


PROBLEM STATEMENT

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Most people struggle to maintain healthy financial habits over time and with current personal finance apps that are too rigid or too passive.

- There's no tool that helps users recover financial balance in a flexible and empathetic way, after spending their savings.
- The emotional cost of these interactions reinforces negative feelings toward money management, rather than empowering users to improve.
- This project responds to that gap by proposing an adaptive and empathetic financial management platform that understands that spending is not failure it is part of balance.



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Our application proposes a new way to manage personal finances: a system that automatically divides income into dynamic categories (needs, wants, and savings) and intelligently adapts when the user spends their savings.

Instead of punishing or blocking spending, the app adjusts the next income's budget to compensate for what was used, naturally and sustainably restoring the user's financial balance.

Value Proposition

A financial system that understands spending is not failure, it's part of balance.

It doesn't punish or restrict; it accompanies and adapts.

- Automates income distribution across categories.
- Detects when savings are used.
- Readjusts the next income to compensate automatically.
- Encourages sustainable, adaptive, and realistic financial habits.

Key Points

Function	Description
Automatic income division	Distributes income dynamically based on personalized rules.
Smart compensation	Adjusts next income after detecting savings use.
Financial balance dashboard	Displays the overall financial health (spending, savings, goals).



How it works

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Step	Description
Setup	User defines income and categories
Distribution	The system automatically splits income based on the percentage chosen
Detection	Detect if the user withdraws from “Savings”
Compensation	Adjust the next income distribution to restore the savings
Feedback	Visual and emotional feedback shows the balance status

Used Technologies:

Area	Technology	Purpose
Frontend	React	Used to build fast, responsive, and mobile friendly interface
Backend	Node.js + Express	Provides the API that connects frontend to the database and executes business logic
Database	MongoDB	Stores user data, income records, transactions, and adaptive percentage configurations.
Notifications	Firebase Cloud Messaging	Sends adaptive reminders and positive feedback notifications to users.
Version control	Git + GitHub	Manages source code collaboration and version tracking among team members