

SENIOR PROJECT · Professor Plantinga

Enhancing the Christian Classics Ethereal Library (CCEL) Experience

Reader Tools & Smart Library Assistant

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Modernizing Scholarly Interaction with Theological Texts

01

Reader Tools

Secure interactive reading & annotation for deep scholarly engagement with theological texts.

02

Smart Library Assistant

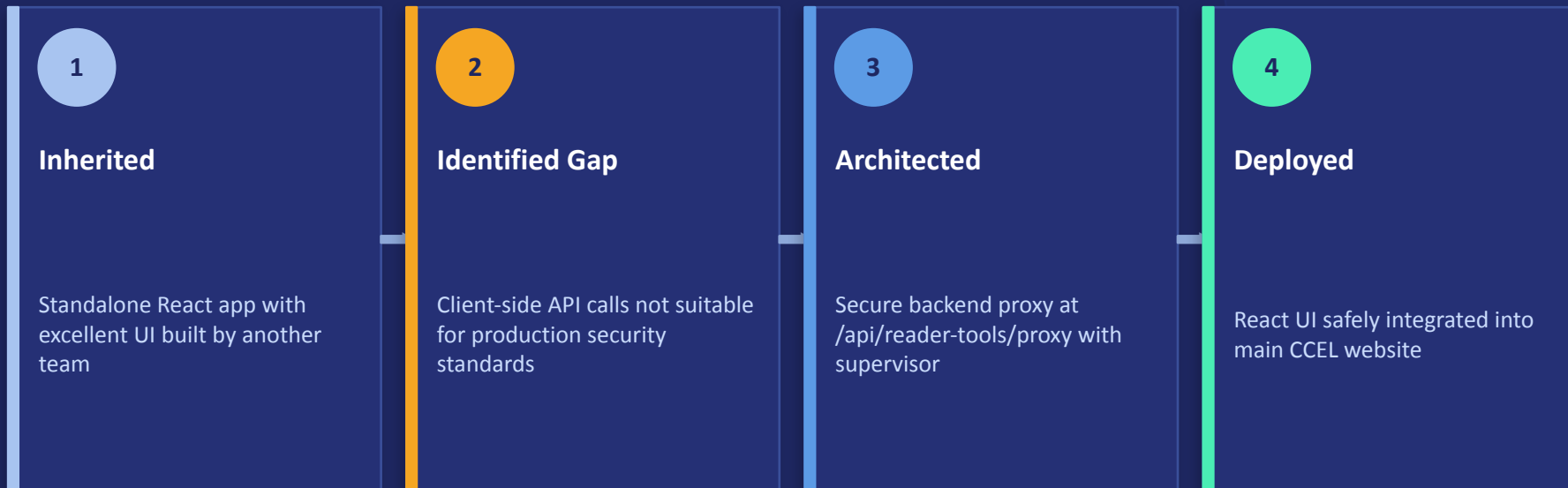
AI-powered research chatbot enabling natural language queries across CCEL's vast collection.

03

System Status Monitor

Real-time infrastructure health dashboard with async 30-second refresh for admin visibility.

Integrating & Securing Reader Tools



Result: Upgraded security with zero changes to the existing React UI

AI-Powered Theological Research

What We Built

The core AI engine (powered by Claude) already lived inside the CCEL Manticore project.

Our job: build the bridge to the user.

We developed the frontend Chatbot UI and wired it into Manticore's existing query-agent API, enabling natural language theological research directly on the page.

Frontend Chatbot UI

Developed user-facing interface integrated into CCEL

Manticore Integration

Wired into existing api/query-agent endpoint seamlessly

Real-Time NLP Research

Complex theological questions answered in-context

Real-Time Infrastructure Health

ADMIN · SYSTEM STATUS

ONLINE

Reader Tools API

ONLINE

Chatbot API

Last checked: just now · Auto-refreshes every 30 seconds

Async Refresh

Non-blocking 30s cycle keeps page responsive

Admin-Only

Gated role-based access for authorized users

Zero DB Load

Client-side monitoring adds no database overhead

How We Solved the Hard Problems

Legacy Routing

Embedded the monitor directly into the existing UI to bypass Laravel 5 catch-all routing rules.

Corrupted Files

Used Git restoration and precision string replacement to recover and repair affected files.

CORS Restrictions

Switched to specific POST requests to bypass CORS limits — giving a more realistic API connectivity test.

API Key Security

Migrated all API keys and credentials to server-side .env environment variables, never committed to Git.

Built on Purpose, Not Just Functionality



Transparency

The Chatbot UI uses a visually distinct design so users always know when they're interacting with AI — not reading a historical text. In an academic library, trust is everything.



Stewardship

Zero database overhead. Our client-side monitoring architecture means the System Status Monitor adds no weight to the CCEL database or server infrastructure.



Trust

admins can reliably know when systems are working. Trustworthy technology means being honest about capabilities and failures, not hiding problems.

What Comes Next

Historical Tracking

Log monitor data over time to measure and report long-term service uptime and identify recurring issues.

01

Automated Alerts

Trigger email or Slack notifications to the admin team the moment any API or service goes offline.

02

User AI monitoring

Monitor User AI usage and restrict or give more as needed.

03

LIVE DEMONSTRATION

DEMO

1

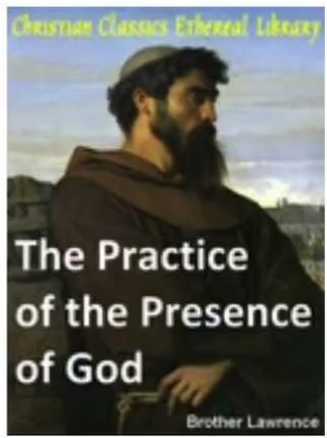
Highlight & Annotate with Reader Tools

2

Ask the AI a theological question

3

View the System Status Monitor



Brother Lawrence is one of the most admired and imitated sons of the Catholic church. He worked for a time as a soldier before entering the Discalced Carmelite Prior in Paris. Lawrence was uneducated, and so had to enter the monastery as a layman. He worked in the kitchens and as a cobbler there for the remainder of his life. Lawrence is known for his devotion and ability to bring God into every aspect of his life. His classic Christian work, *Practice of the Presence of God*, details how to gain that constant and comforting connection to God. Readers have treasured this short and easy book for centuries because of Lawrence's honest advice and his obvious passion for spiritual matters. He rejoiced in everyday tasks, prayed constantly, and was known around the monastery for his kindness and willingness to help others. *Practice of the Presence of God* is a creative Christian work that is required reading according to many believers. Readers will come away with great peace and joy, and a better understanding of what it means to constantly be in God's presence.

Abby Zwart
CCEL Staff Writer

Popularity



Available formats



CONCLUSION · Q&A

Thank You.

Questions?
