

Ghostart Project Overview

What is Ghostart?

Ghostart is an **AI-powered LinkedIn content platform** that helps users **create, optimize, and automate LinkedIn posts** while tracking engagement and enhancing thought leadership. It integrates **AI exercises, content generation, scheduling, and analytics tracking** for individuals and brand advocacy programs.

**Core Features

- **AI-Enhanced Post Writing** → Users draft, generate, and optimize LinkedIn posts with AI assistance.
- **Live LinkedIn Preview** → Real-time preview of the post.
- **Content Calendar & Scheduling** → Drag-and-drop scheduling for LinkedIn content.
- **The Beige-ometer** → Post scoring system that rates engagement potential.
- **AI-Powered Insights** → Suggests improvements based on past engagement data.
- **Training Hub** → Thinkific-style learning platform with AI-powered exercises.
- **Brand Content & Team Collaboration** → Admins can add company content for resharing.
- **Automated Email System** → Sends user notifications, reminders, and reports via Resend API.
- **LinkedIn Analytics Dashboard** → Tracks post performance & engagement trends.
- **Monetized AI Content Packs** → Users can purchase AI-generated LinkedIn content.

**Tech Stack & Hosting

- **Frontend:** Next.js (App Router) hosted on Vercel (`togethr-app.vercel.app`)
- **Styling:** TailwindCSS
- **Backend:** Supabase (PostgreSQL, RLS, Edge Functions) + Redis (caching & queue system)
- **AI Services:** Python backend hosted on Render (OpenAI-powered content generation)
- **External APIs:** LinkedIn API (OAuth, analytics, posting) & Stripe (payments)
- **Email System:** Resend API for transactional & automated emails
- **Security & Monitoring:** Sentry (error tracking), APM (performance monitoring)

**Key Integrations

- ✓ **OAuth Authentication** (Google, LinkedIn, Email) - Already Set Up in Supabase
- ✓ **Supabase Row-Level Security** (User & admin roles)
- ✓ **Redis Queue System** (AI post generation & scheduling automation)
- ✓ **LinkedIn API for Post Analytics** (Fetch impressions, engagement rates)
- ✓ **Resend API for Emails** (Notifications & weekly engagement reports)
- ✓ **Existing Supabase Tables & Storage Buckets Used** (See below)

**Project Goals

- 🎯 Build a **seamless LinkedIn content creation platform** powered by AI.
- 🎯 Provide users **automated scheduling & insights** to boost engagement.
- 🎯 Offer **monetized AI-generated content** to drive revenue.
- 🎯 Develop a **scalable system** that integrates AI, content automation, and analytics.

Ghostart Tech Specification

1. Frontend (Next.js on Vercel - `togethr-app.vercel.app`)

- **App Router model** → Faster rendering & modular routes.
- **Authentication Flow** → OAuth (Google, LinkedIn) & Email/password (Already Configured in Supabase).
- **Live Post Preview System** → Mimics LinkedIn's UI.
- **The Beige-ometer** → AI-driven post scoring algorithm.

2. Caching Layer (Redis on Upstash)

- Stores user **preferences, AI-generated content, and engagement analytics**.
- Reduces **API call frequency** (e.g., OpenAI & LinkedIn API requests).

3. AI Services (Python API on Render)

- **AI-powered content generation** → OpenAI API + user data.
- **Task queue system for AI jobs** → AI post generation & LinkedIn optimization.
- **Fallback mechanisms** for OpenAI failures.

4. Backend (Supabase & PostgreSQL - Existing Setup)

- **Row-Level Security (RLS)** → Ensures users only see their own data.
- **Edge Functions** → Triggers AI personalization & content processing.
- **Database Tables (Existing & Used by Ghostart)**:
 - **Authentication & User Management:** `users`, `user_roles`, `user_brands`
 - **AI Exercises:** `exercises`, `user_exercises`, `exercise_results`
 - **Learning & Course Progress:** `courses`, `modules`, `lessons`, `lesson_progress`, `learning_profiles`, `learning_insights`, `learning_interactions`
 - **LinkedIn Content Management:** `linkedin_posts`
 - **Certificates & Achievements:** `certificate_templates`, `certificates`
- **New Features Will Be Integrated Into Existing Tables**
 - AI-generated post drafts → `linkedin_posts`
 - Post analytics tracking → Possible new table (`post_engagement` if needed)

5. Email Automation (Resend API + Redis Queue)

- **Transactional Emails** → Welcome emails, post scheduling reminders.
- **Automated Engagement Reports** → Weekly LinkedIn analytics report.
- **Email Preferences Management** → Users control notification settings.

6. Supabase Storage Buckets (Existing Setup)

- `lesson-videos` → **Public** storage for course training videos.
- `course-content` → Likely used for other course-related files.
- **New Features Will Reuse Existing Storage Instead of Creating New Buckets**.

7. Monitoring & Security

- **Error tracking with Sentry** → Logs frontend & backend errors.
- **Application Performance Monitoring (APM)** → Tracks response times & resource usage.
- **OAuth security with JWT & token storage**.

Environment Variables (Existing Setup - DO NOT CHANGE)

```env

# Created by Vercel CLI

LINKEDIN\_CLIENT\_ID="78ripjzs5awmwd"

LINKEDIN\_CLIENT\_SECRET="WPL\_AP1.I7xpdUE2ZstMhJmv.JkeQcg=="

NEXT\_PUBLIC\_SUPABASE\_ANON\_KEY="eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9..."

NEXT\_PUBLIC\_SUPABASE\_URL="https://yedzhatfvkwjyvnnkypb.supabase.co"

SUPABASE\_SERVICE\_ROLE\_KEY="eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9..."

OPENAI\_API\_KEY="sk-proj-kXmLjwFkBR65lODF997ffTOpij6NzFTtqjaAkookghcAhX5\_lbU4  
mLAP66Ka7pMsT6ir7z0zVTT3BIbkFJtW9zy1jj-zppxL-FqtJtRVRnR-KYTcrMiZDPOzmml405  
E5x3ooTZ0tIAUdEAMpEfaEJaRPIsG"

```
