🔗 External APIs Required for Agent Bowery System

📱 Social Media Platform APIs

1. Meta (Facebook & Instagram) APIs

Status: ✅ IMPLEMENTED

Required Credentials:

- `META_APP_ID` - Facebook App ID
- `META_APP_SECRET` - Facebook App Secret
- `META_VERIFY_TOKEN` - Webhook verification token

API Endpoints Used:

- **Facebook Graph API v19.0**
  - `https://graph.facebook.com/v19.0/me` - User profile
  - `https://graph.facebook.com/v19.0/{page-id}/feed` - Post to Facebook
  - `https://graph.facebook.com/v19.0/{page-id}/photos` - Upload photos
  - `https://graph.facebook.com/v19.0/{page-id}/videos` - Upload videos
  - `https://graph.facebook.com/v19.0/{page-id}` - Page information
- **Instagram Basic Display API**
  - `https://graph.facebook.com/v19.0/{ig-user-id}/media` - Instagram posts
  - `https://graph.facebook.com/v19.0/{ig-user-id}/media_publish` - Publish to Instagram

OAuth Scopes Required:

- `pages_manage_posts` - Manage Facebook page posts
- `pages_read_engagement` - Read page engagement

- `instagram_basic` - Basic Instagram access
- `instagram_content_publish` - Publish to Instagram

Webhook Endpoints:

- `POST /webhooks/meta` - Receive Facebook/Instagram webhooks

2. LinkedIn APIs

Status: ✅ **IMPLEMENTED**

Required Credentials:

- `LINKEDIN_CLIENT_ID` - LinkedIn App Client ID
- `LINKEDIN_CLIENT_SECRET` - LinkedIn App Client Secret
- `LINKEDIN_WEBHOOK_SECRET` - Webhook signature secret

API Endpoints Used:

- **LinkedIn Marketing Developer Platform**
  - `https://api.linkedin.com/v2/me` - User profile
  - `https://api.linkedin.com/v2/organizationalEntityAcls` - Organization access
  - `https://api.linkedin.com/v2/shares` - Create posts
  - `https://api.linkedin.com/v2/assets` - Upload media
  - `https://api.linkedin.com/v2/organizationalEntityShares` - Organization posts

OAuth Scopes Required:

- `r_liteprofile` - Read basic profile
- `r_organization_social` - Read organization social data
- `w_member_social` - Write social content

Webhook Endpoints:

- `POST /webhooks/linkedin` - Receive LinkedIn webhooks

3. Google APIs (YouTube & Google Business Profile)

Status: ✅ IMPLEMENTED

Required Credentials:

- `GOOGLE_CLIENT_ID` - Google OAuth Client ID
- `GOOGLE_CLIENT_SECRET` - Google OAuth Client Secret
- `GOOGLE_WEBHOOK_SECRET` - Webhook signature secret

API Endpoints Used:

- **YouTube Data API v3**
  - `https://www.googleapis.com/youtube/v3/channels` - Channel information
  - `https://www.googleapis.com/youtube/v3/videos` - Video management
  - `https://www.googleapis.com/youtube/v3/playlists` - Playlist management
  - `https://www.googleapis.com/youtube/v3/comments` - Comment management
- **Google My Business API**
  - `https://mybusinessaccountmanagement.googleapis.com/v1/accounts` - Account management
  - `https://mybusiness.googleapis.com/v4/accounts/{accountId}/locations` - Location management
  - `https://mybusiness.googleapis.com/v4/accounts/{accountId}/locations/{locationId}/posts` - Local posts

OAuth Scopes Required:

- `https://www.googleapis.com/auth/youtube.upload` - YouTube upload
- `https://www.googleapis.com/auth/business.manage` - Google Business management

Webhook Endpoints:

- `POST /webhooks/google` - Receive Google webhooks

🤖 AI & Content Generation APIs

4. Perplexity AI API

Status: ✅ IMPLEMENTED

Required Credentials:

- `PERPLEXITY_API_KEY` - Perplexity API key
- `PERPLEXITY_BASE_URL` - API base URL (default: https://api.perplexity.ai)
- `PERPLEXITY_MODEL` - Model name (default: sonar-large-online)

API Endpoints Used:

- `POST /v1/search` - Search for information
- `POST /v1/answer` - Generate content answers
- `POST /v1/fact-check` - Fact-checking service

Features Used:

- Content generation for blogs and newsletters
- SEO optimization suggestions
- Fact-checking and research
- Content variation generation

📧 Email Marketing APIs (TO BE IMPLEMENTED)

5. Mailchimp API

Status: ❌ NOT IMPLEMENTED

Required Credentials:

- `MAILCHIMP_API_KEY` - Mailchimp API key
- `MAILCHIMP_SERVER_PREFIX` - Server prefix (e.g., us1, us2)

API Endpoints Needed:

- `GET /3.0/lists` - Get mailing lists

- `POST /3.0/lists/{list_id}/members` - Add subscribers
- `POST /3.0/campaigns` - Create campaigns
- `POST /3.0/campaigns/{campaign_id}/actions/send` - Send campaigns

Features Needed:

- Newsletter template management
- Subscriber list management
- Automated delivery scheduling
- Open/click tracking

6. SendGrid API

Status: ❌ NOT IMPLEMENTED

Required Credentials:

- `SENDGRID_API_KEY` - SendGrid API key

API Endpoints Needed:

- `POST /v3/mail/send` - Send emails
- `GET /v3/templates` - Get templates
- `POST /v3/templates` - Create templates
- `GET /v3/stats` - Get email statistics

🌐 Website Management APIs (TO BE IMPLEMENTED)

7. WordPress REST API

Status: ⚠️ PARTIALLY IMPLEMENTED

Required Credentials:

- `WORDPRESS_URL` - WordPress site URL
- `WORDPRESS_USERNAME` - WordPress username

- `WORDPRESS_PASSWORD` - WordPress application password

API Endpoints Needed:

- `POST /wp/v2/posts` - Create blog posts
- `GET /wp/v2/posts` - Get posts
- `POST /wp/v2/media` - Upload media
- `GET /wp/v2/categories` - Get categories
- `GET /wp/v2/tags` - Get tags

Features Needed:

- Automated blog publishing to chaunceyallpro.com
- SEO meta tag management
- Featured image handling
- Category and tag management

🔐 Authentication & Security APIs

8. JWT Secret Management

Status: ✅ **IMPLEMENTED**

Required Credentials:

- `JWT_SECRET` - JWT signing secret
- `TOKEN_ENC_KEY` - Token encryption key

9. API Key Management

Status: ✅ **IMPLEMENTED**

Required Credentials:

- `API_KEYS` - Comma-separated list of API keys

📊 Analytics & Monitoring APIs (TO BE IMPLEMENTED)

10. Google Analytics API

Status: ❌ NOT IMPLEMENTED

Required Credentials:

- `GOOGLE_ANALYTICS_CLIENT_ID` - GA Client ID
- `GOOGLE_ANALYTICS_CLIENT_SECRET` - GA Client Secret

API Endpoints Needed:

- `GET /analytics/v3/data/ga` - Get analytics data
- `GET /analytics/v3/management/accounts` - Get accounts

11. Facebook Analytics API

Status: ❌ NOT IMPLEMENTED

Required Credentials:

- Uses existing Meta credentials

API Endpoints Needed:

- `GET /v19.0/{page-id}/insights` - Page insights
- `GET /v19.0/{ig-user-id}/insights` - Instagram insights

🔄 Webhook Management

12. Webhook Verification

Status: ✅ IMPLEMENTED

Required Credentials:

- `META_VERIFY_TOKEN` - Meta webhook verification

- `LINKEDIN_WEBHOOK_SECRET` - LinkedIn webhook secret
- `GOOGLE_WEBHOOK_SECRET` - Google webhook secret

📋 Complete Environment Variables List

Here's the complete list of environment variables you'll need:

```
# Core Application
NODE_ENV=development
PORT=4000
DATABASE_URL=postgresql://bowery:bowery@localhost:55432/bowery
REDIS_URL=redis://localhost:56379
ELASTICSEARCH_NODE=http://localhost:19200

# OAuth Configuration
OAUTH_REDIRECT_BASE=http://localhost:44000/oauth
OAUTH_REDIRECT_ALLOWLIST=http://localhost:44000/oauth/meta/callback,
<http://localhost:44000/oauth/linkedin/callback>
OAUTH_COOKIE_SECRET=your-cookie-secret
OAUTH_STATE_TTL_SECONDS=300
OAUTH_PKCE_ENABLED=true

# Meta (Facebook & Instagram)
META_APP_ID=your-facebook-app-id
META_APP_SECRET=your-facebook-app-secret
META_VERIFY_TOKEN=your-webhook-verify-token

# LinkedIn
LINKEDIN_CLIENT_ID=your-linkedin-client-id
LINKEDIN_CLIENT_SECRET=your-linkedin-client-secret
LINKEDIN_WEBHOOK_SECRET=your-linkedin-webhook-secret

# Google (YouTube & Google Business Profile)
GOOGLE_CLIENT_ID=your-google-client-id
GOOGLE_CLIENT_SECRET=your-google-client-secret
```

```
GOOGLE_WEBHOOK_SECRET=your-google-webhook-secret

# YouTube (separate credentials if needed)
YOUTUBE_CLIENT_ID=your-youtube-client-id
YOUTUBE_CLIENT_SECRET=your-youtube-client-secret

# AI Content Generation
PERPLEXITY_API_KEY=your-perplexity-api-key
PERPLEXITY_BASE_URL=https://api.perplexity.ai
PERPLEXITY_MODEL=sonar-large-online

# Email Marketing (TO BE IMPLEMENTED)
MAILCHIMP_API_KEY=your-mailchimp-api-key
MAILCHIMP_SERVER_PREFIX=us1
SENDGRID_API_KEY=your-sendgrid-api-key

# WordPress Integration (TO BE IMPLEMENTED)
WORDPRESS_URL=https://chaunceyallpro.com
WORDPRESS_USERNAME=your-wordpress-username
WORDPRESS_PASSWORD=your-wordpress-app-password

# Security
JWT_SECRET=your-jwt-secret
TOKEN_ENC_KEY=your-token-encryption-key
API_KEYS=api-key-1,api-key-2,api-key-3

# Frontend
FRONTEND_URL=http://localhost:43000

# Development
DRY_RUN=false
```

🎯 Priority Implementation Order

Phase 1: Core Social Media (COMPLETED)

1. ✅ Meta (Facebook & Instagram)
2. ✅ LinkedIn
3. ✅ Google (YouTube & GBP)
4. ✅ Perplexity AI

Phase 2: Content Publishing (HIGH PRIORITY)

1. 🔥 **WordPress REST API** - For chaunceyallpro.com blog publishing
2. 🔥 **Mailchimp/SendGrid** - For monthly newsletters

Phase 3: Advanced Features (MEDIUM PRIORITY)

1. Google Analytics API
2. Facebook Analytics API
3. Advanced webhook processing

Phase 4: Enterprise Features (LOW PRIORITY)

1. CRM integrations (Salesforce, HubSpot)
2. Advanced analytics APIs
3. Third-party content services

💰 Estimated API Costs

Current APIs (Implemented)

- **Perplexity AI**: ~$20-50/month (depending on usage)
- **Meta APIs:** Free (with rate limits)
- **LinkedIn APIs:** Free (with rate limits)
- **Google APIs:** Free (with rate limits)

Additional APIs Needed

- **Mailchimp**: $10-50/month (depending on subscribers)

- **SendGrid**: $15-100/month (depending on emails)

- **WordPress**: Free (self-hosted)

Total Estimated Cost: $45-200/month

🚀 Next Steps

1. **Set up WordPress REST API** for chaunceyallpro.com

2. **Integrate Mailchimp/SendGrid** for newsletter delivery

3. **Configure webhook endpoints** for all platforms

4. **Set up API monitoring** and rate limit management

5. **Implement error handling** and retry logic for all APIs

Your system is already well-architected to handle these API integrations. The main work needed is implementing the WordPress and email marketing integrations to complete your content marketing automation system.