# Letter of Intent Automation Utility - Development Prompt

## Project Overview

Create an automated system that generates customized Letters of Intent (LOI) for VP Racing Branded Supply Agreements by integrating Less Annoying CRM form data with a standardized template, then facilitating electronic signature collection.

## System Requirements

### Core Functionality

1. **CRM Integration**: Connect to Less Annoying CRM API to retrieve LOI form submissions
2. **Document Generation**: Populate LOI template with CRM form data
3. **Cloud Storage**: Save completed LOIs to Google Drive
4. **E-Signature**: Send documents via Sign.com (or alternative) for customer signature
5. **Workflow Management**: Track document status and completion

### Technical Architecture

#### Data Flow

Less Annoying CRM Form → API Retrieval → Template Population →

Google Drive Storage → E-Signature Service → Customer Email →

Status Tracking → Completion Notification

#### Integration Points

* **Less Annoying CRM API**: Form data retrieval
* **Google Drive API**: Document storage and management
* **Sign.com API** (or DocuSign/Adobe Sign): E-signature workflow
* **Email Service**: Notifications and document delivery

## Required Form Fields from Less Annoying CRM

### Customer Information

* Company/Business Name
* Contact Person Name and Title
* Business Address (Street, City, State, ZIP)
* Email Address
* Phone Number

### Fuel Supply Details

* Monthly Gasoline Volume (gallons)
* Monthly Diesel Volume (gallons)
* Current Fuel Supplier
* Estimated Conversion Date

### Financial Information

* Image Funding Amount
* Incentive Funding Amount
* Total Estimated Incentives

### Project Specifications

* Canopy Installation Required (Yes/No)
* Current Branding to Remove
* Special Requirements/Notes

## Template Mapping

### Document Fields to Populate

Based on the provided VP Racing LOI template, map CRM fields to:

1. **Header Section**
   * Customer Site Name → Business Name
   * Dealer Address → Business Address
2. **Proposal Section**
   * Monthly fuel volumes → Gasoline/Diesel gallons
   * Agreement duration (default: 10 years)
3. **Incentives Section**
   * Image Funding Value → Image Funding Amount
   * Incentive Funding Value → Incentive Funding Amount
   * Total Estimated Incentives → Sum calculation
4. **Signature Section**
   * Dealer Name → Contact Person Name
   * Dealer Title → Contact Person Title
   * Current Date → Auto-generated

## System Features

### Document Generation

* **Template Engine**: Use library like jsPDF, PDFKit, or Google Docs API
* **Field Validation**: Ensure all required fields are populated
* **Formatting**: Maintain professional appearance with logos and branding
* **Version Control**: Track template versions and updates

### Google Drive Integration

* **Folder Structure**: Organize by date, customer, or status
* **Naming Convention**: Standardized file naming (e.g., "LOI\_[CustomerName]\_[Date]")
* **Permissions**: Appropriate access controls for team members
* **Backup**: Automatic file backup and version history

### E-Signature Workflow

* **Document Preparation**: Convert to e-signature ready format
* **Recipient Setup**: Customer email and signing requirements
* **Reminder System**: Automated follow-up emails
* **Completion Tracking**: Real-time status updates

### User Interface

* **Dashboard**: View pending, completed, and expired LOIs
* **Manual Override**: Edit templates or resend documents
* **Reporting**: Generate summaries and analytics
* **Notifications**: Alert system for completed signatures

## Technical Implementation

### Backend Development

// Pseudo-code structure

class LOIAutomation {

async retrieveCRMData(formId)

async populateTemplate(crmData, templateId)

async saveToGoogleDrive(document, folder)

async sendForSignature(document, customerEmail)

async trackStatus(documentId)

}

### API Integrations

* **Less Annoying CRM**: RESTful API for form data
* **Google Drive**: Google Drive API v3
* **Sign.com**: REST API for document management
* **Email**: SMTP or service like SendGrid

### Error Handling

* **API Failures**: Retry logic and fallback procedures
* **Data Validation**: Check for missing or invalid form data
* **Document Errors**: Handle template population failures
* **Delivery Issues**: Track and retry failed email deliveries

## Security Considerations

* **API Keys**: Secure storage of all API credentials
* **Data Encryption**: Encrypt sensitive customer information
* **Access Control**: Role-based permissions for team access
* **Audit Trail**: Log all document generation and signing activities

## Deployment Options

1. **Cloud-based**: AWS Lambda, Google Cloud Functions, or Azure Functions
2. **Self-hosted**: Node.js application on company servers
3. **SaaS Integration**: Zapier, Microsoft Power Automate, or custom webhooks

## Testing Requirements

* **Unit Tests**: Individual component functionality
* **Integration Tests**: End-to-end workflow testing
* **User Acceptance**: Business stakeholder validation
* **Performance Tests**: Handle expected volume load

## Monitoring and Maintenance

* **Health Checks**: Monitor API connections and system status
* **Performance Metrics**: Track document generation and delivery times
* **Error Logging**: Comprehensive logging for troubleshooting
* **Regular Updates**: Keep API integrations and templates current

## Success Metrics

* **Processing Time**: From CRM form to signature request
* **Completion Rate**: Percentage of LOIs successfully signed
* **Error Reduction**: Decrease in manual intervention required
* **User Satisfaction**: Feedback from sales team and customers

## Future Enhancements

* **Mobile App**: iOS/Android app for field sales teams
* **Advanced Analytics**: Customer behavior and conversion tracking
* **Template Variations**: Multiple LOI types for different scenarios
* **CRM Sync**: Bi-directional data synchronization

## Deliverables

1. **Functional Application**: Complete automation system
2. **Documentation**: User guides and technical documentation
3. **Training Materials**: Staff training on system usage
4. **Support Plan**: Ongoing maintenance and support procedures

This utility should streamline the LOI process, reduce manual errors, improve customer experience, and provide better tracking and management of fuel supply agreements.