# **Feeler: An AI-Powered Sentiment Analysis Platform for Customer Feedback**

**Team Members**:

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* Jany Muong - ML Engineer
* Gatmach Yuol] - UI/UX Designer
* Vincent Ochieng - Backend/API Developer
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**Date**: March 11th, 2025

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## **1. Introduction**

### **Problem Statement**

Businesses receive **vast amounts of customer feedback** from various sources such as social media, review sites, and customer support channels. However, manually analyzing this feedback is inefficient, prone to bias, and lacks scalability and obviously it’s prone to errors. In essence, businesses struggle to derive meaningful insights, leading to missed opportunities for customer satisfaction and business growth.

### **Feeler - Solution**

Feeler is an AI-powered sentiment analysis platform leveraging **Natural Language Processing** (NLP) to **analyze customer feedback** in real time. It provides businesses with **actionable insights**, enabling them to understand customer sentiment, identify pain points, and make data-driven decisions. The platform supports natural language and offers granular **sentiment classification** ranging from e.g. **very negative** to **very positive**.

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### **Objective**

The objectives of Feeler are:

1. **Core Objective** - user-friendly sentiment analysis platform.
2. To provide businesses with real-time insights to improve customer experience.
3. Deliver **actionable insights** through an intuitive dashboard - you decide whether to promote a feature and/or improve on a feature.

## **2. Team Structure**

### **Team Members and Roles**

1. **Team Feeler - Product Owner**: manages project vision, requirements, and stakeholder communication.
2. **Joram Kireki - Lead Developer**: oversees backend development, API integration, and deployment.
3. **Jany Muong - Backend Engineer**: Implements NLP models and manages database operations.
4. **Vincent Ochieng - Lead Developer**: oversees backend development, and API integration
5. **Gatmach Yuol - UI/UX Designer**: designs the user interface and ensures seamless user experience.
6. **Josphat Waweru - UI/UX Designer**: designs the user interface and ensures seamless user experience.

### **Commitment**

All team members have signed a contract committing to regular meetings, task completion, and milestone adherence. We will use Trello for task management.

## **3. Problem Justification**

### **Why is this Problem Important?**

* Manually analyzing customer feedback is inefficient and prone to human bias.
* Businesses need real-time sentiment analysis to enhance customer satisfaction and reduce churn.
* Existing tools are either expensive, limited in some type of way, or lack granular **sentiment** classification.

### **Real-World Impact**

Feeler will empower businesses to:

* Enhance customer experience by addressing concerns proactively.
* Improve revenue by refining products/services based on sentiment insights.
* Gain a competitive edge through data-driven decision-making.

## **4. Commercial Viability**

### **Revenue Model**

* **Subscription-Based SaaS**: Offers tiered pricing plans (Basic, Pro, Enterprise).
* **Freemium Model**: Provides basic features for free with premium analytics as a paid option.

### **Target Customers**

* Small and medium-sized businesses (SMBs).
* Enterprises in e-commerce, hospitality, and retail.

### **Competitor Analysis**

Compared to tools like Hootsuite Insights and Brandwatch, Feeler offers:

* **Affordability**: Lower pricing for SMBs.
* **Multilingual Support**: Sentiment analysis in 20+ languages.
* **Granular Sentiment Analysis**: 5-level sentiment classification.

### **Scalability**

* Built on cloud infrastructure (AWS, Heroku) to handle large-scale data processing.
* API integration with multiple data sources for broad applicability.

## **5. Go-To-Market Strategy**

### **Marketing Approach**

* **Digital Marketing**: Leverage LinkedIn ads, Google Ads, and social media campaigns.
* **Partnerships**: Collaborate with business associations and influencers.

### **User Acquisition**

* **Free Trial**: Offer a 14-day free trial for early adoption.
* **Referral Program**: Reward users for inviting others.

### **Pilot Testing**

* Partner with businesses to test the platform and refine features.

### **Customer Support**

* 24/7 support via email and live chat.
* Self-help resources, including a knowledge base and video tutorials.

## **6. Resources Required**

### **Human Resources**

* Core development team, mentors, and external consultants for security and cloud deployment.

### **Hardware/Software**

* Cloud servers (preferably AWS).
* NLP libraries (TensorFlow, Hugging Face Transformers).
* Frontend frameworks (React.js).

## **7. Methodology**

### **Development Methodology**

* **Agile Development**: 2-week sprints with continuous feedback.
* **DevOps Practices**: CI/CD pipelines, automated testing, and cloud deployment.
* **Lean Software Development**: Prioritization of user needs and rapid prototyping.

### **Development Plan**

1. **Week 1**: Ideation and team formation.
2. **Week 2**: Software design and architecture.
3. **Week 3**: CI/CD pipeline setup.
4. **Week 4**: Frontend and backend development.
5. **Week 5-6**: Testing and debugging.
6. **Week 7**: Security and performance optimization.
7. **Week 8-9**: Deployment and monitoring.
8. **Week 10-11**: Final development sprint.
9. **Week 12**: Research paper writing.
10. **Week 13**: Final presentations.
11. **Week 14**: Industry evaluation.

## **8. Expected Outcomes**

1. **Fully Functional Software Product**: A live, deployable version of Feeler.
2. **Industry-Level Documentation**: README, Wiki, and API documentation.
3. **Research Paper**: A publishable paper based on project insights.
4. **Certifications**: Industry-recognized certifications earned by team members.

## **9. Conclusion**

Feeler is an innovative sentiment analysis platform designed to help businesses derive actionable insights from customer feedback. By integrating AI and NLP, the platform enhances decision-making, improves customer satisfaction, and drives business growth. With a strong development plan, committed team, and industry-oriented approach, Feeler is positioned for success.