AI-Powered Survey Insight Tool - Project Description

Project Description:

The AI-Powered Survey Insight Tool is a full-stack web application designed to simplify survey creation, distribution, and analysis. It empowers businesses to collect user feedback and extract deep insights using OpenAI's GPT models for natural language processing.

This system integrates traditional form-based survey logic with artificial intelligence, allowing automated summarization, sentiment analysis, and suggested improvements based on open-ended responses. The result is faster, more intelligent decision-making based on real customer feedback.

Key Responsibilities:

- Developed a complete full-stack solution using .NET Core Web API and Angular.
- Designed dynamic survey modules supporting MCQ, rating, and open-text questions.
- Integrated OpenAI GPT-4 API to analyze responses and auto-generate insights.
- Built dashboards using Chart.js/ngx-charts to display response trends and sentiment.
- Implemented JWT-based authentication and role-based access control (Admin, Analyst, Respondent).
- Used Entity Framework Core and SQL Server to model relational survey and response data.
- Built PDF/Excel export features and deployed on Azure App Services.

Tech Stack:

Frontend: Angular 15+, Bootstrap, ngx-charts

Backend: ASP.NET Core 6 Web API, C#

AI Integration: OpenAI GPT-4 API

Database: SQL Server / PostgreSQL

Auth: JWT (JSON Web Token)

Deployment: Azure App Services, Azure SQL

Tools: Postman, Swagger, GitHub, VS Code, Visual Studio

Key Features:

- Survey Builder: Create custom surveys with various question types
- Public Link Sharing: Share surveys via unique URLs
- AI Dashboard: GPT-generated summaries and sentiment charts

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- AI Insights: GPT suggests improvements and tags key topics
- Exports: Generate PDF/Excel reports
- Secure Access: Role-based login system using JWT

AI Capabilities Used:

- Summarization of 100s of text responses into a concise overview
- Sentiment Classification: Positive / Neutral / Negative
- Recommendation Generation: Based on feedback trends
- Topic Tagging (future scope): Identify recurring themes automatically