Report

Neighborhood Event Planner

1. Project Overview

This project is a **Neighborhood Event Planner** web application designed to help communities organize local events. The system uses a **Flask backend** with **AI support from OpenAI** to generate event ideas, invitation messages, and planning timelines. It also provides **fallback content** to ensure functionality without an API connection. The **frontend** is built with **HTML, CSS, and Jinja2 templates** for interactivity.

2. Objectives

- Assist communities in planning engaging events.
- Provide creative ideas for **themes, food, and activities**.
- Automatically generate **inclusive invitations**.
- Create a **structured preparation timeline**.
- Demonstrate the application of **AI in event management**.

3. System Requirements

Software Requirements

- Python 3.9+
- Flask
- Jinja2 Templates
- OpenAI Python SDK
- python-dotenv
- HTML5, CSS3

Hardware Requirements

- System with minimum **4GB RAM**
- Stable **internet connection** for AI features

4. System Design

Architecture

1. **User Input** – Event details (type, guests, budget, location, date, venue, tone).
2. **Event Ideas Generation** – ideas.py suggests themes, food, and activities.
3. **Invitation Generation** – invitation.py generates 3 distinct messages.
4. **Timeline Creation** – timeline.py builds a preparation schedule.
5. **Output** – Results displayed in a web page (Flask template).

5. Implementation

Modules

- app.py – Main Flask application with routes.
- config.py – Handles OpenAI configuration and API keys.
- ideas.py – Generates event ideas with AI or fallback.
- invitation.py – Generates invitation texts.
- timeline.py – Creates preparation timeline.
- index.html – Input form for event details.
- static.css – Styles the UI.

Workflow

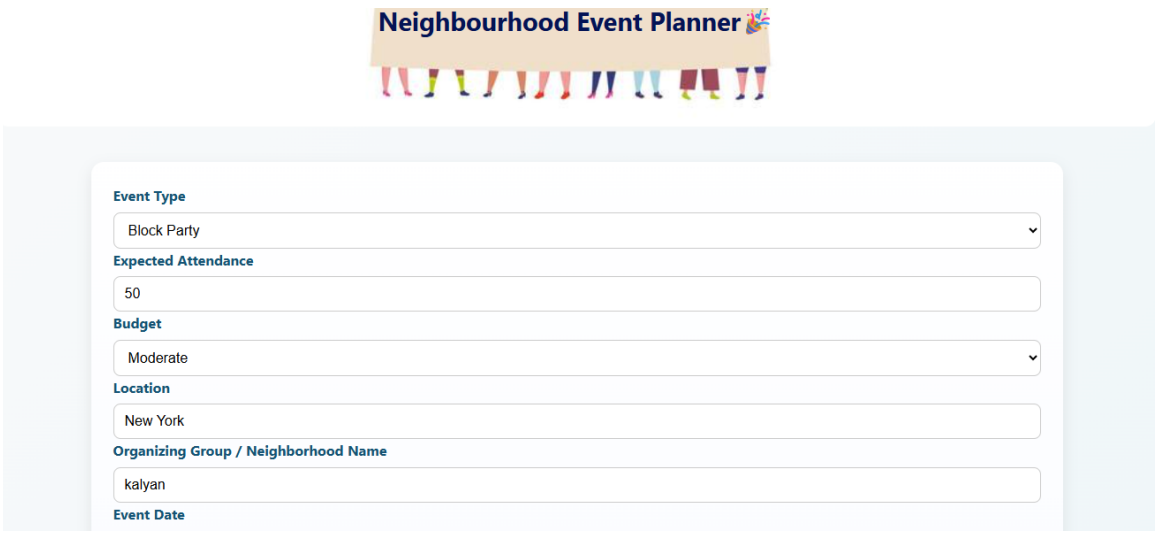
1. User fills event details in the **form (index.html)**.
2. Flask collects input in **app.py**.
3. Functions generate_event_ideas, generate_invitations, and make_timeline process the input.

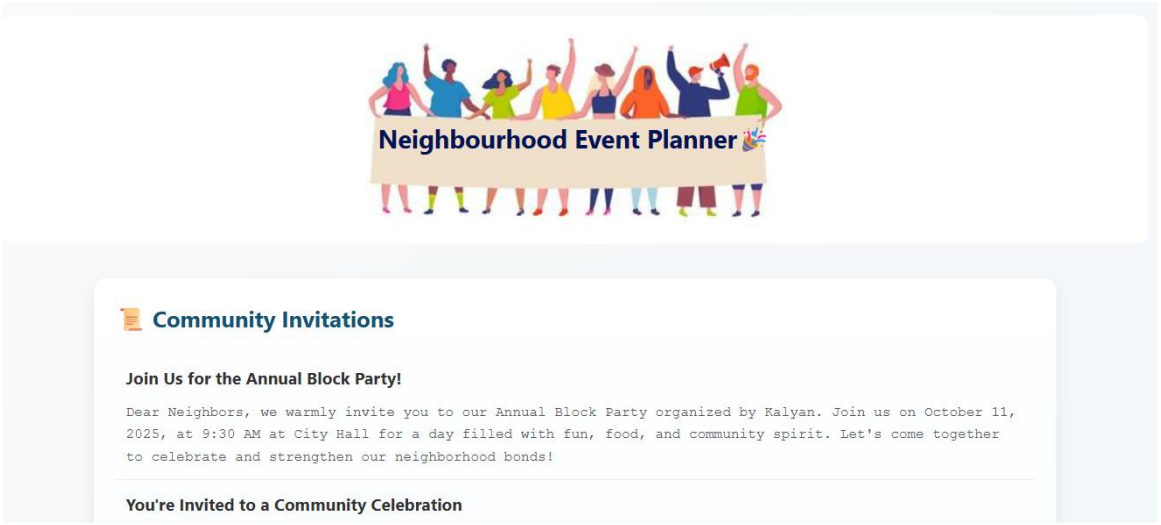
4. Results are displayed on a **results page**.

6. Results

- Successfully generates **community event plans**.
- Provides **fallback options** when OpenAI API is unavailable.
- Creates **user-friendly invitations and timelines**.
- Has a **modern, responsive user interface**.

7. Screenshots





8. Applications

- **Community Engagement** – Plan block parties, cultural fairs, cleanups.
- **Education** – Teach event management concepts interactively.
- **Local Governance** – Help councils organize neighborhood activities.
- **Nonprofits** – Simplify planning for volunteer-driven events.

9. Limitations

- Dependent on **OpenAI API** for advanced features.
- Requires **internet connectivity** for AI suggestions.
- Current version lacks **PDF export or sharing functionality**.
- Results page (results.html) needs to be added for complete workflow.

10. Future Scope

- Add **results.html** for better output display.
- Implement **PDF export** of event plans.
- Add **multi-language support** for diverse communities.
- Integrate with **calendar/reminders**.
- Deploy on **cloud hosting platforms** (Render, Heroku, etc.).

11. Conclusion

The **Neighborhood Event Planner** demonstrates how AI can assist communities in organizing **inclusive and engaging local events**.
It combines **automated idea generation, invitation creation, and timeline planning** with a **user-friendly interface**, making event organization easier and more collaborative.