

## AI Support Ticket Classifier

This project is an **AI-powered support ticket classifier**.

It uses **Google's Gemini AI model** to read customer support tickets and classify them into:

- **Bug** 
- **Feature Request** 
- **Question** 

It also suggests the **next steps** and saves all tickets into a **history file** for tracking.

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## Features

- Classifies tickets automatically using AI
  - Categories: Bug, Feature Request, Question
  - Suggests next actions for each ticket
  - Saves ticket history to ticket\_history.json
  - Export history as **JSON** or **CSV**
  - Easy-to-use **Gradio web interface**
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## Tech Stack

- **Python**
  - **Google Generative AI (Gemini)**
  - **Gradio** (for user interface)
  - **Pandas** (for CSV export)
  - **dotenv** (for managing API key)
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## Installation

1. **Clone this repository**
2. `git clone https://github.com/your-username/ai-support-ticket-classifier.git`
3. `cd ai-support-ticket-classifier`

#### 4. Install dependencies

5. pip install -r requirements.txt

(Make sure you have Python 3.8 or above installed)

#### 6. Set up API key

- Create a .env file in the project folder
  - Add your **Google API key** inside it:
  - GOOGLE\_API\_KEY=your\_api\_key\_here
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### Usage

Run the app with:

```
python app.py
```

It will launch a **Gradio interface** in your browser where you can:

- Enter a support ticket
  - See the **category**, **reply**, and **next steps**
  - View the history of all classified tickets
  - Export history to **JSON** or **CSV**
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### Project Structure

```
ai-support-ticket-classifier
├── app.py          # Main application
├── requirements.txt # Dependencies
├── .env            # API key (not uploaded to GitHub)
└── ticket_history.json # History of tickets (auto-created)
  └── README.md      # Project documentation
```

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### Example

**Input Ticket:**

The login page shows an error when I try to sign in.

#### **Output:**

- Category: Bug 🐞
  - Reply: "Thanks for reporting this issue. We'll assign it to the dev team."
  - Next Steps: "Log into bug tracker. Assign to dev team."
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#### **Contributing**

Contributions are welcome!

- Fork the repo
  - Create a new branch
  - Make your changes
  - Open a pull request
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#### **License**

This project is licensed under the **MIT License** – free to use and modify.