### **🧩 Problem Statement**

In today’s digital workplace, employees often interact with internal systems and documents that may contain sensitive information. It’s important to:

* Allow only authorized users to access the system, SSO
* Ensure any sensitive data (like emails, phone numbers, etc.) is protected, masking
* Store user-uploaded content securely, Azure blob storage
* Provide a user-friendly interface to interact with this system. streamlit

Your project solves this by building a secure, cloud-powered platform that:

* Authenticates users via Microsoft login,
* Masks sensitive data from uploaded content,
* Saves data securely to Azure Blob Storage, and
* Provides an interactive Streamlit-based UI for user interaction.

### **🛠️ Tech Stack Used**

* **Microsoft Authentication**: For secure user login
* **Azure Blob Storage**: For storing user-uploaded text files safely
* **Python**: Backend logic and data processing
* **Streamlit**: Frontend UI for user interaction
* **OpenAI (Azure-hosted)**: For evaluating user inputs and enforcing company policies
* **Pandas, Regex, PIL, etc.**: For data handling, image rendering, and PII masking

### **🔐 What the Authentication Module Does**

The authentication folder handles Microsoft Single Sign-On (SSO). It:

* Verifies the identity of users trying to log in,
* Ensures that only authorized employees can access the platform,
* Redirects users after successful login to the main app interface.

### **⚙️ What the Backend Module Does**

The backend folder contains two key files: blob.py and helper.py.

* **blob.py**:  
  + Cleans incoming text data by masking sensitive information (like emails, phone numbers, etc.),
  + Uploads the cleaned data to Azure Blob Storage,
  + Compares user input against a set of predefined rules.
* **helper.py**:  
  + Loads all environment variables (like API keys, model names),
  + Retrieves logos/icons from Azure for frontend display,
  + Interacts with OpenAI to:  
    - Validate user prompts against company policy,
    - Evaluate whether the content is safe and appropriate.

### **🎨 What the Frontend Module Does**

The frontend folder uses **Streamlit** to build a web-based UI that:

* Lets users log in via Microsoft Authentication,
* Allows uploading of PDF or text data,
* Displays any results, feedback, or visual elements like logos,
* Provides a smooth and interactive user experience.

### **🧠 In a Nutshell**

Your project is a secure and intelligent platform where employees can:

1. **Log in** safely using their Microsoft account,
2. **Upload content** like feedback or documents,
3. **Have that content processed** to remove sensitive data,
4. **Store it** securely in the cloud (Azure),
5. **Get a clean, interactive experience** through a Streamlit web app.

It’s like a smart assistant that filters and safely stores workplace content—while ensuring only the right people can use it.