CST8917 – Serverless Applications

Lab 3: Implementing a Teams Chat Content Moderation Service

Overview

You are tasked with forming a Content Moderation Team of 1 to 3 members. Your team will develop a service that monitors Microsoft Teams chat messages for inappropriate content. The service must utilize Azure Logic Apps for orchestration, with the optional use of Azure Functions for custom processing and Azure Cognitive Services for Language for content analysis. Any detected policy violations must trigger an email notification to the designated administrator.

Objectives

1. Demonstrate proficiency in using Azure Logic Apps for service orchestration.
2. Optionally incorporate Azure Functions and Azure Cognitive Services to enhance your service.
3. Ensure real-time monitoring and handling of policy violations in Teams chat.
4. Implement an automated notification system to alert administrators of violations.

Team Formation

Please form teams of **1 to 3 students**. We encourage collaboration and peer-learning through this team dynamic. Once formed, please designate a team leader to coordinate with the instructor and submit the team list by **Thursday, March 14, 2024**.

Tasks and Deliverables:

Your Content Moderation Team will:

1. **Design a Content Moderation Workflow:**
    - Create a flowchart detailing the steps of your moderation service using Azure Logic Apps.
2. **Develop the Moderation Service:**
    - Set up the Azure Logic App and integrate Microsoft Teams triggers to monitor chat messages.
    - Optionally, create Azure Functions to preprocess chat messages before analysis.
    - Optionally, utilize Azure Cognitive Services to analyze the content for inappropriate material.
3. **Implement Notification Logic:**

- Configure the Logic App to send an email alert when a violation is detected. The content of the alert email should follow the template provided earlier.

4. **Test the Service:**
    - Conduct comprehensive tests to ensure accurate detection of policy violations and proper functioning of the email alert system.
5. **Document the Project:**
    - Prepare a report documenting your design choices, implementation process, testing strategy, and any challenges faced.
6. **Present Your Solution (Optional):**
    - Your team will present your service to the class, demonstrating its functionality and answering any questions from your peers.

Submission Requirements:

- The list of team members and the designated team leader.
- The flowchart of the content moderation workflow.
- Access to the configured Azure Logic App and any associated Azure Functions or Cognitive Services configurations.
- A written report, including a reflective analysis and any recommendations for improvements.

Grading Criteria:

Your assignment will be assessed on the following:

- Accuracy: The correctness of the content monitoring logic and email alert system.
- Complexity: The sophistication of your Logic App's workflow and the optional use of Azure Functions and Cognitive Services.
- Reliability: The consistency and dependability of the service during testing.
- Documentation: Clarity and thoroughness of your report.
- Presentation: Effectiveness in demonstrating and explaining your service.