**Script Analyzer for Robot Framework**

**Overview:**

The Robot Framework Script Analyzer is a specialized tool designed to analyze Robot Framework scripts for various parameters such as formatting, consistency, adherence to coding standards, and more. It provides a detailed analysis report and can send this report via email to a designated recipient. The tool ensures that Robot Framework scripts maintain a high standard of quality and are free of common issues that could lead to failures in automation testing.

**Features:**

* **Script Analysis**: The tool thoroughly examines Robot Framework scripts for formatting, consistency, adherence to coding standards, and best practices.
* **Custom Keyword Detection**: Identifies custom keywords defined within the script and excludes them from certain checks to avoid false positives.
* **Spacing and Indentation Checks**: Ensures that the script follows proper spacing and indentation rules, such as requiring exactly four spaces between keywords and their arguments.
* **Operator Spacing Checks**: Validates that arithmetic operators in expressions are properly spaced, while ignoring paths, URLs, and other non-code elements.
* **Documentation and Naming Conventions**: Checks for the presence of documentation in test cases and keywords, and ensures variables, keywords, and test cases follow naming conventions.
* **Error Logging and Reporting**: The tool logs the results of its analysis, including details about each test case, the custom keywords detected, and any issues found. A summary report is generated for easy review.
* **Email Notification**: Upon completion of the analysis, the tool sends an email notification with the comprehensive analysis report to a designated recipient email address.

**Analyzer Checks Implemented:**

**The Robot Framework Script Analyzer performs the following checks:**

* **Custom Keyword Detection**:
  + Identifies custom keywords within the \*\*\* Keywords \*\*\* section.
  + Excludes custom keywords from spacing checks to avoid false positives.
* **Spacing and Indentation**:
  + Ensures exactly four spaces between keywords and their arguments.
  + Checks for consistent spacing between arguments.
  + Verifies proper indentation with spaces instead of tabs.
* **Operator Spacing**:
  + Ensures proper spacing around arithmetic operators (+, -, \*, /, =).
  + Ignores paths, URLs, and file references to avoid incorrect flagging.
* **Documentation and Naming Conventions**:
  + Checks for the presence of documentation in test cases and keywords.
  + Ensures that variables are named using uppercase with underscores.
  + Verifies that keywords and test cases follow Title Case naming conventions.
* **Error Logging and Reporting**:
  + Logs details of the analysis, including the nature of any issues found.
  + Generates a report summarizing the analysis for easy review.

**Limitations:**

* **Single File Upload:** Only one file can be uploaded for analysis at a time.
* **Analysis Time:** The analysis process, including sending out the email with logs, typically takes under a minute for a large file, and even less for smaller files.
* **File Size Limit:** There is a limit to the size of the file that can be uploaded for analysis - **Max Limit is 2MB**.
* **File Extension Requirement:** The uploaded must have the “.robot" extension.
* **Fixed Analysis Settings:** Currently, users cannot change the analysis settings. Future updates may allow customization based on project requirements.
* **No Result Display on GUI:** There is no provision to view the analysis results directly on the GUI. This may be considered for future enhancements.
* **Automatic Deletion of Uploaded Files:** Uploaded files and logs are automatically deleted from the server once the email containing the logs is sent to the recipient email mentioned in the GUI.
* **Update Policy:** The tool will be updated based on issues raised by end users or/and to incorporate new features or improvements.

Overall, the Script Analyzer provides a comprehensive analysis of robot files, helping engineers review the code changes efficiently and effectively.

**How to Access Application:**

The application's graphical user interface (GUI) can be accessed by opening a web browser, preferably Chrome, and entering the following URL in the Web browser:

[**http://192.168.0.78**](http://192.168.0.78)

**How to Use Application:**

* Access Application via GUI
* Enter the Recipient Email Address
  + Support is Provided only for Email-ids from thinkpalm.com domain
* Attach File to be Analyzed from desired Location:
  + Click on [**Select the .robot File**](http://192.168.0.78/) in the GUI and select the .robot file
* Click on Submit once Upload file name is displayed in GUI
* On Clicking submit, the File will be analyzed and Email will be sent to the Recipient Email id, along with a display message on the GUI: “**File uploaded successfully. Logs will be sent to the recipient.**”
* Only one file can be uploaded for analysis at a time. If a second file has to be uploaded, Please click on the **RESET** button.

**Feedback and Support:**

If you encounter any issues, have suggestions, or require assistance, please reach out to me at [**manu.m@thinkpalm.com**](mailto:manu.m@thinkpalm.com) or via Teams/Skype.