Conestoga College – SET

Assignment #3

Logging Service

Name: Alex Kozak

Date of Submission: 2020-November-15

Network Application Development

(SENG2040)

Table of Contents

LOGGING SERVICE 3
Purpose of the Application 3
Necessary Features 3
Features Added 3
Things to Add 3
EVALUATION FORM 4
REFERENCES 5

LOGGING SERVICE

PURPOSE OF THE APPLICATION

This application is meant to interact with a vast number of services and allow anyone to log with the service. The main meat of the application is the ability to send in messages to the service which then get stored to a local file. This is a non-volatile destination and will not realistically be deleted.

NECESSARY FEATURES

Several aspects of a logging service are universal and cannot be stressed enough, they are as follows:

- Receiving input from any source in a language-independent manner
- Storing those logs to disk
- Allowing for sufficient information to be stored and gathered to make the log lines useful
- Allowing the user's service to go up and down without affecting the logging service
- Quick enough that it doesn't interfere with normal use of the application
- Configurable logging interface
- UTC Timestamping

All of these features are included in the program, and it is robust enough to handle odd inputs, allowing the user to be confident that their system will go down before this service does. Th

FEATURES ADDED

There are several additional features I added as part of this project that were not directly part of the requirements, and they are as follows:

- Allowing multiple users to append to the same log source
- Separating log files by day
- Masking user identifiers to prevent cross log appending
- Allowing the same user to create multiple log directories
- Granting unique session tokens for use on one client only
- Piping from a login port to a dedicated logging port
- Allowing a user of a directory to grant permissions to other users
- Human readable error messaging to prevent confusion

Most of these systems are allowing the user to customize their solution and allow for the use of this system in a number of different configurable ways. This allows those using this to be comfortable that in the case of a dramatic infrastructure change, they will be able to mould this service to fit their needs.

THINGS TO ADD

There are a couple points to add in the future, and they would be as follows:

- Request the log dump
- Add custom log line formatting
- Improve configurability options

EVALUATION FORM

Please include this page at the end of your test document. Be sure to complete the self evaluation.

		Self Evaluation	Score
Logging			
	Level of Logging Detail	5 / 5	/ 5
	Logging Configurability	5 / 5	/ 5
	Overall “Goodness” *	5 / 5	/ 5
	Research Notes	4 / 5	/ 5
Solution			
	Demonstration Readiness	5 / 5	/ 5
	Automated Testing	5 / 5	/ 5
	Security?	4 / 5	/ 5
	Bug Free Operation	5 / 5	/ 5
	SET Standards	5 / 5	/ 5
Subtotal		43/ 45	/ 45
Completeness Scale Factor		5/ 5	/ 5
Total (Subtotal * Completeness / 5)		43/ 45	/ 45
Reflection		Self Evaluation	Score
	Self Evaluation Accuracy	/ 5	/ 5
		Total	/ 50

Please note, the overall “Goodness” of your logging solution is expected to be based on non-trivial research into the elements of a good logging solution. You will be asked to explain the features of your solution at the time of your demonstration.

REFERENCES

Tips on Logging Microservices. (2019, August 04). Retrieved from https://logz.io/blog/logging-microservices/

Building a very simple SOAP microservice in JAVA. (n.d.). Retrieved from https://seanwasere.com/building-a-very-simple-soap-microservice-in-java/