

Log Monitoring

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

Dhaarani Pushpam S

Domain: Dr. T. Subbulakshmi

VIT Chennai

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Learning Objectives

In this tutorial we will learn about



Learning Objectives

In this tutorial we will learn about

- **System logs**



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In this tutorial we will learn about

- System logs
- How to monitor logs



System Requirements

To record this tutorial, I am using



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- **Ubuntu Linux OS 22.04**



System Requirements

To record this tutorial, I am using

- Ubuntu Linux OS 22.04
- Python 3.12.3



Pre-requisites

- You must have basic knowledge of using Linux Terminal and Python



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- For pre-requisite Linux and Python Tutorials, please visit <https://www.spoken-tutorial.org/>



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- Python libraries required for automation must be installed



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Code files

- The files used in this tutorial are provided in the Code files link



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- Please download and extract the files



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- Please download and extract the files
- Make a copy and then use them while practicing



Log monitoring

Log Monitoring in automation :

- **Collects and analyzes log data for insights**



Log monitoring

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- Collects and analyzes log data for insights
- Record events, errors, and system messages



Log monitoring

Log Monitoring in automation :

- Collects and analyzes log data for insights
- Record events, errors, and system messages
- Helps to detect issues before they become critical



Libraries used

- **Logging library is used to log events during the execution of the program**



Libraries used

- Logging library is used to log events during the execution of the program
- `collections.Counter` is used for counting elements in an iterable and for summarizing log data



Types of logs



Types of logs

- Application Logs **will record events within a running application**



Types of logs

- Application Logs **will record events within a running application**
- System Logs **captures the operating system events**



Types of logs

- Audit Logs **will analyze what is happening on your system in great detail**



Summary

In this tutorial, we have learnt about

- **System logs**
- **How to monitor logs**



Assignment

- 1 Scan the log file for occurrences of the word "ERROR" and "CRITICAL"
- 2 Extract the timestamp of each occurrence
- 3 Plot the frequency of errors by time using matplotlib



About the Spoken Tutorial Project

- Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- It summarises the Spoken Tutorial project
- If you do not have good bandwidth, you can download and watch it



Answers for THIS spoken tutorial

- Questions in THIS Spoken Tutorial
- Visit <https://forums.spoken-tutorial.org>
- Choose the minute and second where you have the question
- Explain your question briefly
- The Spoken Tutorial project will ensure an answer
- You will have to register to ask questions



FOSSEE Forum

- For any general or technical questions on Python for Automation, visit the FOSSEE forum and post your question <https://forums.fossee.in/>



Acknowledgement

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Thank you

- **This is Dhaarani Pushpam S, a FOSSEE Semester Long Intern 2024, IIT Bombay**

