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Name- J. A. D. P. K. A Jayasinghe

1. Network monitoring tools that are used in NODE environment

▪ Microsoft network monitor

Microsoft Network Monitor is a packet analyzer that allows you to capture, view and analyze network traffic. This tool is handy for troubleshooting network problems and applications on the network. Main features include support for over 300 public and Microsoft proprietary protocols, simultaneous capture sessions, a Wireless Monitor Mode and sniffing of promiscuous mode traffic, amongst others.

▪ Nagios

Nagios is a powerful network monitoring tool that helps you to ensure that your critical systems, applications and services are always up and running. It provides features such as alerting, event handling and reporting. The Nagios Core is the heart of the application that contains the core monitoring engine and a basic web UI. On top of the Nagios Core, you are able to implement plugins that will allow you to monitor services, applications, and metrics, a chosen frontend as well as add-ons for data visualisation, graphs, load distribution, and MySQL database support, amongst others.

▪ Advanced IP scanner

Advanced IP Scanner is a fast and easy to use network scanner that detects any network devices (including wireless devices such as mobile phones, printers and WIFI routers) on your network. It allows you to connect to common services such as HTTP, FTP and shared folders if they are enabled on the remote machine. You are also able to wake up and shut down remote computers.

▪ Network Miner

NetworkMiner captures network packets and then parses the data to extract files and images, helping you to reconstruct events that a user has taken on the network – it can also do this by parsing a pre-captured PCAP file. You can enter keywords which will be highlighted as network packets are being captured. NetworkMiner is classed as a Network Forensic Analysis Tool (NFAT) that can obtain information such as hostname, operating system and open ports from hosts.

2. Python based web frame works

- **Django**

Django is a high-level Python Web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of Web development, so you can focus on writing your app without needing to reinvent the wheel. It's free and open source.

- **Flask**

Flask is considered more pythonic than Django because Flask web application code is in most cases more explicit. Flask is easy to get started with as a beginner because there is little boilerplate code for getting a simple app up and running.

- **Web2py**

Free open source full-stack framework for rapid development of fast, scalable, secure and portable database-driven web-based applications. Written and programmable in python.

- **Pyramid**

Pyramid is a very general open source Python web framework. As a framework, its primary job is to make it easier for a developer to create an arbitrary web application. The type of application being created isn't really important; it could be a spreadsheet, a corporate intranet, or a social networking platform. Pyramid is general enough that it can be used in a wide variety of circumstances.