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Ex No: 9
Date: 10/10/24

ANALYZE DIFFERENT TYPES OF SERVERS USING WEBALIZER

AIM:

To analyze the different types of web logs using Webalizer tool.

PROCEDURE:

- Step 1: Download Apache web server using- `dnf install httpd`
- Step 2: Configure SELINUX to permissive mode
(open `/etc/sysconfig/selinux` Put `SELINUX=permissive`)
- Step 3: Start Apache web server using- `systemctl start httpd.service`
- Step 4: Create a directory for webalizer using - `mkdir /var/www/html/webalizer`
- Step 5: Install webalizer using - `dnf install webalizer`
- Step 6: Copy files from `/var/www/usage` to `/var/www/html`
- Step 7: Open `/etc/webalizer.conf` file and add the following-
LogFile `/var/log/httpd/access_log`
LogType `clf`
Hostname `localhost`
Output Dir `/var/www/html/webalizer`
- Step 8: Save it and then run webalizer
- Step 9: Open in web browser `http://localhost/webalizer`

Webalizer

#Instructions to install, configure and run Webalizer on Fedora

#Enter the root password after typing su

Su

1. Download Apache web server using- `dnf install httpd`

`dnf install httpd`

Configure SELINUX to permissive mode
(open `/etc/sysconfig/selinux` Put `SELINUX=permissive`)

`vi /etc/sysconfig/selinux`

Put SELINUX=permissive instead of enforcing

Step 3: Start Apache web server using- systemctl start httpd.service

```
systemctl enable httpd.service systemctl start
```

```
httpd.service
```

Step 4: Create a directory for webalizer using - mkdir /var/www/html/webalizer

```
mkdir /var/www/html/webalizer
```

Step 5: Install webalizer using - dnf install webalizer

```
dnf install webalizer
```

Step 6: Copy files from /var/www/usage to /var/www/html

```
cp -r /var/www/usage /var/www/html
```

Step 7: Open /etc/webalizer.conf file and add the following-

```
vi /etc/webalizer.conf
```

#add the following lines

```
LogFile /var/log/httpd/access_log #This is enabled in newer versions of fedora
```

```
LogType clf
```

```
Hostname localhost #For this one you can remove comment denoted by '#'
```

```
OutputDir /var/www/html/webalizer
```

Step 8: Save it and then run webalizer save it
and then run

Webalizer

Step 9: Open in web browser <http://localhost/webalizer>

Open in browser <http://localhost/webalizer>

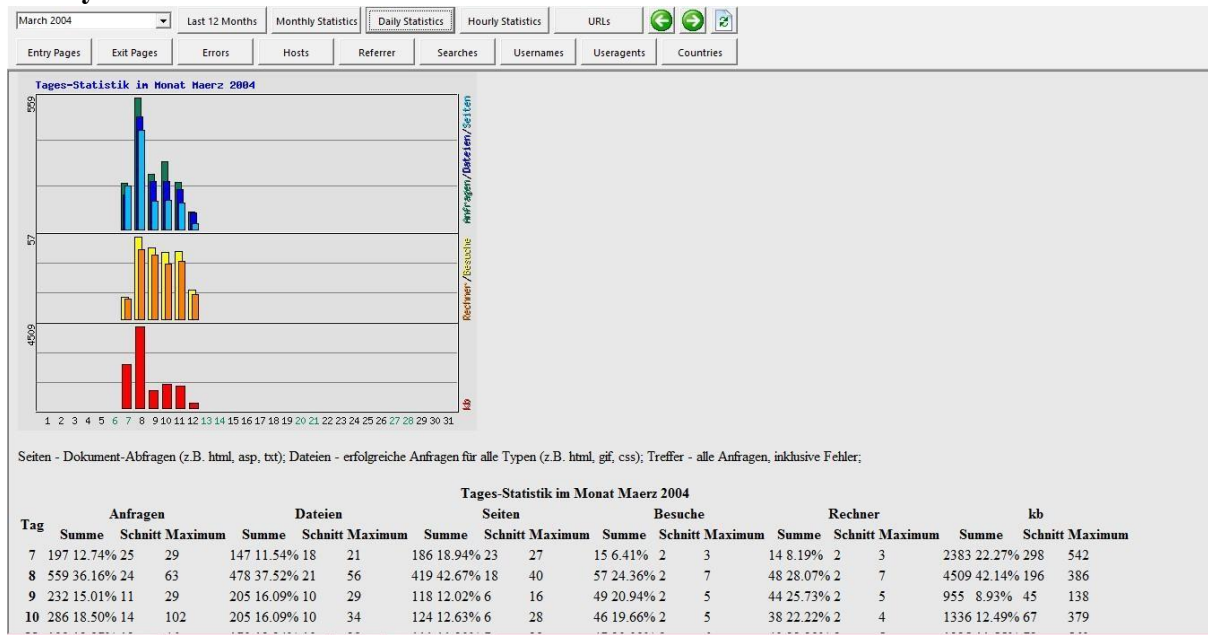
Click Oct.2023 link to get the report for this month

Before running webalizer, restart httpd server by typing- systemctl restart



httpd.service

OUTPUT:

Monthly statistics



Hosts

March 2004		Last 12 Months		Monthly Statistics		Daily Statistics		Hourly Statistics		URLs		 					
Entry Pages		Exit Pages		Errors		Hosts		Referrer		Searches		Usernames		Useragents		Countries	
Top 20 von 171 Rechnern (IP-Adressen)																	
#	Anfragen	Dateien	Seiten	kb	Besuche	Dauer	Land	Rechnername									
1	100	6.47%	83	6.51%	46	4.68%	472	4.41%	10	4.27%	8.48	39.85	shawcable.net				
2	72	4.66%	71	5.57%	52	5.30%	86	0.80%	71	30.34%	0.09	6.62	inktomisearch.com				
3	47	3.04%	41	3.22%	43	4.38%	613	5.73%	4	1.71%	3.77	15.10	overture.com				
4	44	2.85%	42	3.30%	23	2.34%	244	2.28%	2	0.85%	4.51	4.70	hevanet.com				
5	35	2.26%	29	2.28%	14	1.43%	218	2.03%	7	2.99%	1.31	6.00	bc.ca				
6	29	1.88%	28	2.20%	14	1.43%	97	0.91%	1	0.43%	3.43	3.43	panduit.com				
7	23	1.49%	14	1.10%	10	1.02%	135	1.26%	1	0.43%	12.35	12.35	geovariances.fr				
8	22	1.42%	22	1.73%	8	0.81%	67	0.63%	1	0.43%	3.72	3.72	cox.net				
9	19	1.23%	19	1.49%	7	0.71%	61	0.57%	1	0.43%	1.52	1.52	ac.il				
10	19	1.23%	11	0.86%	10	1.02%	51	0.48%	2	0.85%	3.04	5.87	netinfo.bg				
11	15	0.97%	14	1.10%	13	1.32%	130	1.22%	3	1.28%	1.29	3.87	e-i.net				
12	13	0.84%	13	1.02%	13	1.32%	120	1.12%	1	0.43%	3.88	3.88	telia.net				
13	13	0.84%	13	1.02%	1	0.10%	28	0.26%	1	0.43%	0.13	0.13	net.ar				
14	13	0.84%	13	1.02%	2	0.20%	30	0.28%	1	0.43%	0.87	0.87	dhl.com				
15	12	0.78%	11	0.86%	9	0.92%	68	0.63%	1	0.43%	25.53	25.53	tiscali.de				
16	12	0.78%	12	0.94%	1	0.10%	27	0.25%	1	0.43%	0.33	0.33	wtbts.org				
17	12	0.78%	12	0.94%	1	0.10%	27	0.25%	1	0.43%	0.10	0.10	qwest.net				
18	11	0.71%	11	0.86%	7	0.71%	41	0.38%	2	0.85%	0.56	1.03	radiant.net				
19	10	0.65%	9	0.71%	7	0.71%	41	0.38%	1	0.43%	1.40	1.40	net.au				
20	10	0.65%	10	0.78%	2	0.20%	61	0.57%	1	0.43%	0.17	0.17	3_343_lt_someone				
Top 10 von 171 Rechnern (IP-Adressen) sortiert nach kb																	
#	Anfragen	Dateien	Seiten	kb	Besuche	Dauer	Land	Rechnername									
1	47	3.04%	41	3.22%	43	4.38%	613	5.73%	4	1.71%	3.77	15.10	overture.com				
2	100	6.47%	83	6.51%	46	4.68%	472	4.41%	10	4.27%	8.48	39.85	shawcable.net				
3	44	2.85%	42	3.30%	23	2.34%	244	2.28%	2	0.85%	4.51	4.70	hevanet.com				

Webalizer is a popular web log analysis tool that generates detailed statistics about web server usage. It reads log files generated by a web server (like Apache, Nginx, etc.), and produces various reports that help

analyze the traffic and usage patterns. To analyze different types of servers using Webalizer, follow this step-by-step guide.

Step-by-Step Procedure for Using Webalizer

Step 1: Install Webalizer

The first step is to install Webalizer on the server. Installation steps differ depending on the server type and operating system.

For Ubuntu/Debian `sudo apt-get update`
`sudo apt-get install webalizer`

For CentOS/RHEL `sudo yum install webalizer`

Step 2: Configure Webalizer

After installation, Webalizer needs to be configured to process the log files generated by your server.

- The configuration file is typically located at `/etc/webalizer/webalizer.conf`.

Open this file using a text editor:

```
sudo nano /etc/webalizer/webalizer.conf
```

Look for key parameters:

LogFile: Define the path to the web server log file. This is where the server logs are stored. Example:

```
LogFile /var/log/apache2/access.log # for Apache server
```

```
LogFile /var/log/nginx/access.log # for Nginx server
```

- **OutputDir:** The directory where the generated reports will be stored. Example: `OutputDir /var/www/html/webalizer`
- **HostName:** Set the domain name of your server (optional but recommended). Example: `HostName www.example.com`

- **Step 3: Run Webalizer**

Once the configuration is set, you can manually run Webalizer to analyze the logs and generate reports.

```
sudo webalizer -c /etc/webalizer/webalizer.conf
```

This command will process the log file defined in the configuration and generate output reports in the specified **OutputDir**.

Step 4: Schedule Automatic Log Processing (Optional)

You can set up a cron job to automatically run Webalizer at regular intervals (daily, weekly, etc.).

To edit the cron jobs, use:

```
sudo crontab -e
```

Add the following line to run Webalizer daily:

```
0 0 * * * /usr/bin/webalizer -c /etc/webalizer/webalizer.conf
```

Step 5: Access the Reports

After running Webalizer, you can access the reports through a web browser. Point the browser to the location where reports are stored (e.g., <http://www.example.com/webalizer/>).

These reports will include:

- Daily, monthly, and yearly statistics.
- Visitor counts (hits, page views, unique visitors).
- HTTP status codes (200, 404, etc.).
- Referrer analysis.
- Search engine keywords.

Step 6: Analyzing Different Types of Servers

Webalizer can work with log files from different types of servers (like Apache, Nginx, or FTP servers). The key is to configure Webalizer to point to the correct log file for each type of server. Depending on the server, you'll specify different log file locations in the configuration:

- **For Apache server:**
 - Typical log file location: `/var/log/apache2/access.log`
- **For Nginx server:**
 - Typical log file location: `/var/log/nginx/access.log`
- **For FTP server** (like vsftpd):
 - Typical log file location: `/var/log/vsftpd.log`

You can analyze multiple servers by setting up multiple Webalizer configurations, each targeting the specific log file of each server.

Step 7: Customize Reports (Optional)

You can further customize the Webalizer reports by adjusting the configuration parameters. Some additional options include:

- **TopSites:** Limit the number of top websites listed in the report.
- **GraphLegend:** Toggle the inclusion of graph legends.
- **CountryGraph:** Enable/disable graphs for country-based analysis.

Step 8: Interpret the Data

- **Traffic Patterns:** Check for daily/monthly traffic, peak times, and bandwidth usage.
- **HTTP Status Codes:** Look for errors (404, 500) to optimize your site.
- **Referrals:** Analyze where the traffic is coming from, including search engines.
- **User Agents:** Identify browsers and operating systems used by visitors.

By following these steps, you can successfully analyze logs from different types of servers using Webalizer, gaining valuable insights into traffic and usage trends.

To analyze different types of servers using Webalizer on **CentOS**, follow these detailed steps:

Step-by-Step Procedure for Using Webalizer on CentOS

Step 1: Install Webalizer

Start by installing Webalizer on your CentOS system.

1. Open the terminal.

Use the following command to install Webalizer:

```
sudo yum install webalizer
```

2. If it prompts for confirmation, press **Y** to confirm.

Step 2: Configure Webalizer

After the installation, you'll need to configure Webalizer to process your web server logs. The configuration file is typically located at `/etc/webalizer.conf`.

Open the configuration file using a text editor like **vi** or **nano**: `sudo vi /etc/webalizer.conf` or `sudo nano /etc/webalizer.conf`

1. Modify the following important parameters:

- **LogFile:** Set the path of your server's log file. For example:

- **Apache:** `/var/log/httpd/access_log`

- **Nginx:** `/var/log/nginx/access.log`

```
LogFile /var/log/httpd/access_log # For Apache LogFile
/var/log/nginx/access.log # For Nginx
```

- **OutputDir:** Define the directory where Webalizer will generate the reports. For example:

- `OutputDir /var/www/html/webalizer`

- **HostName:** Specify the hostname for the reports: `HostName www.example.com`

-

2. Save and close the configuration file.

Step 3: Run Webalizer

Once the configuration is set, you can run Webalizer manually to process the logs and generate reports. Use the following command:

```
sudo webalizer -c /etc/webalizer.conf
```

This command will process the log file and generate reports in the directory specified by `OutputDir`.

Step 4: Set Up Webalizer to Run Automatically

You can configure Webalizer to run automatically at regular intervals (e.g., daily) using cron jobs. Open the cron configuration for editing:

```
sudo crontab -e
```

1. Add the following line to execute Webalizer daily at midnight:

```
0 0 * * * /usr/bin/webalizer -c /etc/webalizer.conf
```

2. Save and exit the cron configuration.

Step 5: View Reports

Once Webalizer has processed the logs, you can view the reports through a web browser. Point your browser to the location where Webalizer saves its output:

- Example URL: `http://your-server-ip/webalizer/`

The reports will include:

- Daily, monthly, and yearly traffic statistics.
 - Unique visitors, page views, and hits.
 - HTTP status codes (such as 200, 404).
 - Referrer statistics.
-

- Search engine keywords.

Step 6: Configure for Different Servers

You can configure Webalizer to process logs from different types of servers, such as **Apache**, **Nginx**, or **FTP** servers. Depending on the type of server, change the **LogFile** parameter in `/etc/webalizer.conf` to point to the appropriate log file.

- **For Apache:**
LogFile `/var/log/httpd/access_log` • **For Nginx:**
LogFile `/var/log/nginx/access.log` • **For FTP servers (like vsftpd):** **LogFile** `/var/log/vsftpd.log`
- You can also create separate configuration files for each server type and run Webalizer for each one individually:

```
sudo webalizer -c /etc/webalizer_apache.conf # For Apache
sudo webalizer -c /etc/webalizer_nginx.conf  # For Nginx
```

Step 7: Analyze the Data

- **Traffic Overview:** Get insights into daily, monthly, and yearly traffic trends.
- **Error Monitoring:** Look for HTTP errors (404, 500) to fix broken links or server issues.
- **Referrers and Keywords:** See which sites or search engines are referring traffic.
- **User Agents:** Analyze the browsers and devices being used by visitors.

By following these steps, you can analyze logs for different server types on CentOS using Webalizer, helping you optimize server performance and understand traffic patterns better.

To download and install **Webalizer**, the web log analysis tool, follow these steps based on your operating system.

For CentOS (7/8/Stream):

Update the Package List: First, ensure your system's package list is updated.

```
sudo yum update
```

Install Webalizer: Install Webalizer using the **yum** package manager:

```
sudo yum install webalizer
```

Verify Installation: After the installation, check that Webalizer is installed correctly by running:

```
webalizer -V
```

1. This should output the version of Webalizer installed.
 2. **Set Up Configuration (Optional):** After installing Webalizer, you can configure it by editing the configuration file located at `/etc/webalizer.conf` to point to your server logs.
-

For Ubuntu/Debian:

Update Package List: Run the following command to update your system:

`sudo apt-get update`

Install Webalizer: Install Webalizer using `apt`:

`sudo apt-get install webalizer`

Verify Installation: Check if Webalizer is installed by running: `webalizer -V`

For Other Linux Distributions:

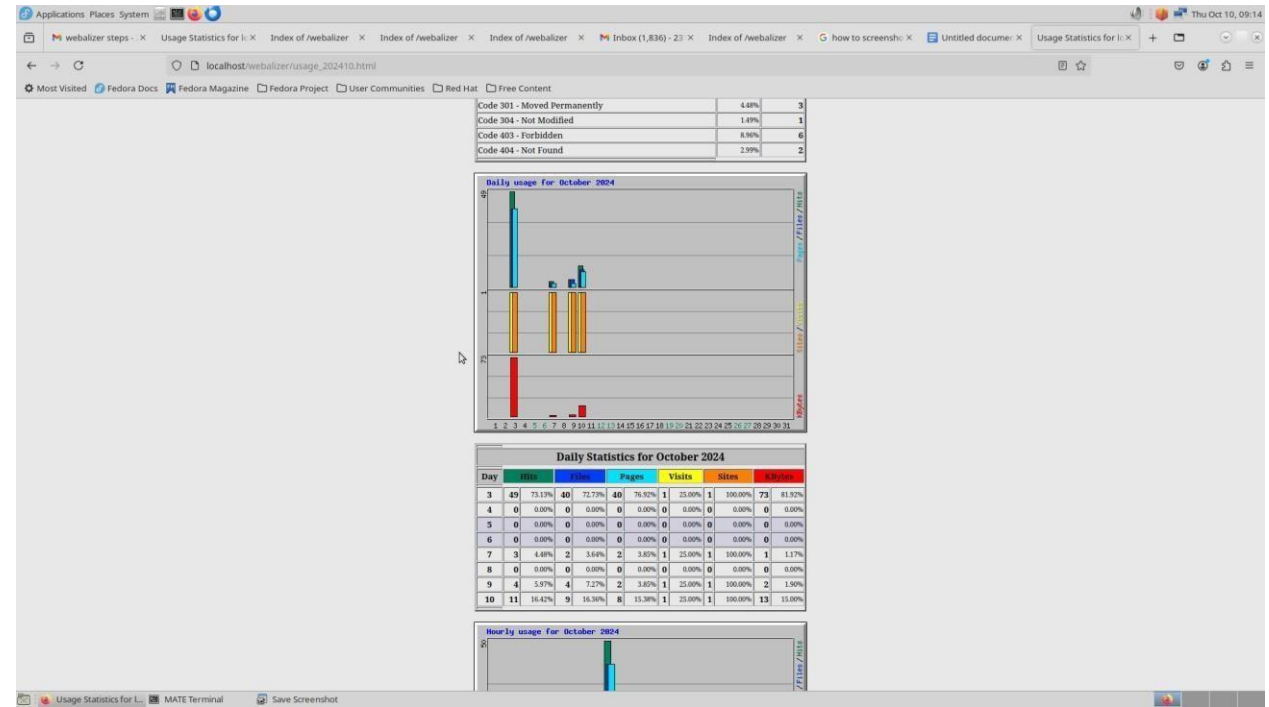
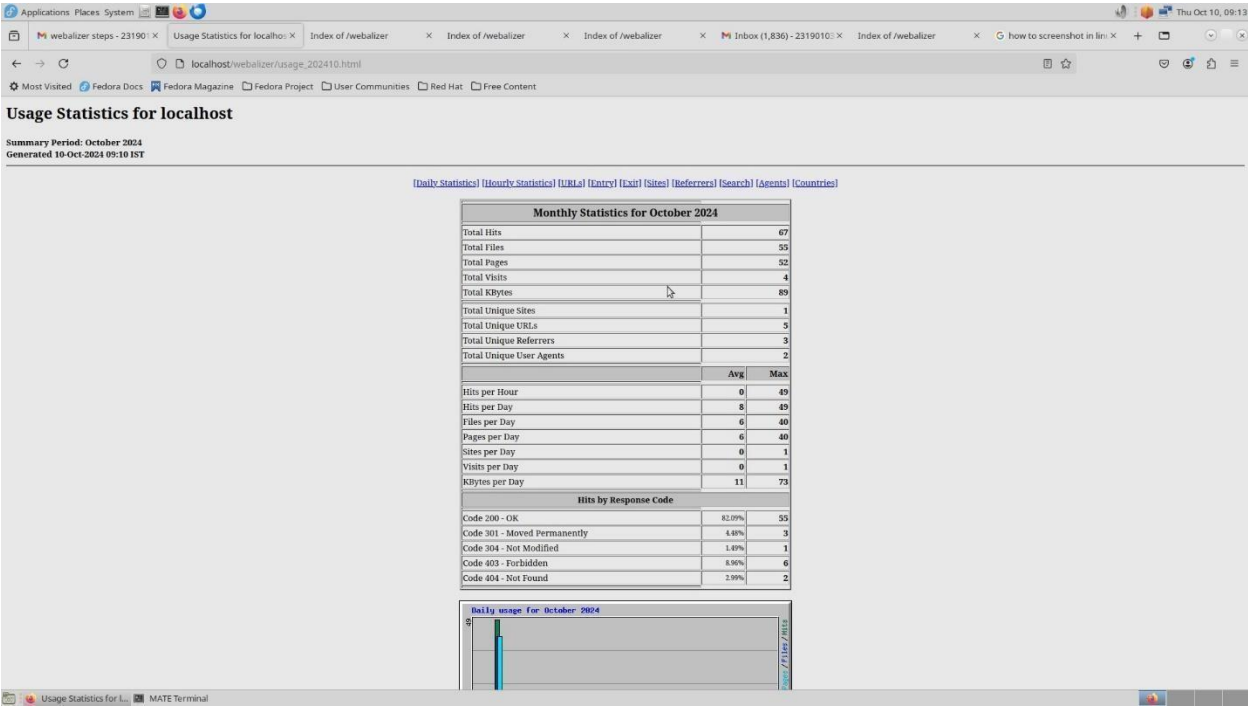
If you're using another Linux distribution, you can generally install Webalizer using the package manager available for your system (like `dnf` for Fedora or `zypper` for SUSE).

For Fedora: `sudo dnf`

`install webalizer` **For SUSE:**

`sudo zypper install webalizer`

OUTPUT:



ApplicationsPlacesSystem

Thu Oct 10, 09:15

webalizer steps - xUsage Statistics for i: xIndex of /webalizer xIndex of /webalizer xIndex of /webalizer xInbox (1,836) - 23 xIndex of /webalizer xHow to screensh: xUntitled docume: xUsage Statistics for i: x

localhost/webalizer/usage_202410.html

Most VisitedFedora DocsFedora MagazineFedora ProjectUser CommunitiesRed HatFree Content

Hourly Statistics for October 2024

Hour	Hits		Pages		Visits		Bytes					
	#	%	#	%	#	%	#	%				
0	0	0.00%	0	0.00%	0	0.00%	0	0.00%				
1	0	0.00%	0	0.00%	0	0.00%	0	0.00%				
2	0	0.00%	0	0.00%	0	0.00%	0	0.00%				
3	0	0.00%	0	0.00%	0	0.00%	0	0.00%				
4	0	0.00%	0	0.00%	0	0.00%	0	0.00%				
5	0	0.00%	0	0.00%	0	0.00%	0	0.00%				
6	0	0.00%	0	0.00%	0	0.00%	0	0.00%				
7	0	0.00%	0	0.00%	0	0.00%	0	0.00%				
8	1	14.93%	1	14.55%	0	7	13.48%	2	13	14.23%		
9	6	50	74.63%	5	41	74.53%	5	41	78.83%	9	73	82.67%
10	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
11	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
12	0	7	10.45%	0	6	10.91%	0	4	7.69%	0	3	3.08%
13	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
14	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
15	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
16	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
17	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
18	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
19	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
20	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
21	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
22	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	
23	0	0	0.00%	0	0.00%	0	0	0.00%	0	0	0.00%	

Top 1 of 5 Total URLs

#	Hits	%	Pages	%	URL
1	43	64.18%	29	32.29%	/webalizer/

Top 1 of 5 Total URLs By KBytes

#	Hits	%	KBytes	%	URL
1	43	64.18%	29	32.29%	/webalizer/

Usage Statistics for i: MATE TerminalSave ScreenshotSave ScreenshotSave Screenshot

Thu Oct 10, 09:15

Applications Places System										Thu Oct 10, 09:15									
webalizer steps - x Usage Statistics for i: x Index of /webalizer x Index of /webalizer x Index of /webalizer x Inbox (1,836) - 23 x Index of /webalizer x how to screensh: x Untitled docume: x Usage Statistics for i: x																			
localhost/webalizer/usage_202410.html																			
Most Visited Fedora Docs Fedora Magazine Fedora Project User Communities Red Hat Free Content																			
Top 1 of 5 Total URLs																			
#	Hits		Pages		URL														
1	43	64.18%	29	32.29%	/webalizer/														
Top 1 of 5 Total URLs By KBytes																			
#	Hits		KBytes		URL														
1	43	64.18%	29	32.29%	/webalizer/														
Top 1 of 1 Total Entry Pages																			
#	Hits		Visits		URL														
1	43	64.18%	2	100.00%	/webalizer/														
Top 1 of 1 Total Exit Pages																			
#	Hits		Visits		URL														
1	43	64.18%	3	100.00%	/webalizer/														
Top 1 of 1 Total Sites																			
#	Hits		Visits		KBytes		Visits		Hostname										
1	67	100.00%	55	100.00%	89	100.00%	4	100.00%	localhost										
Top 1 of 1 Total Sites By KBytes																			
#	Hits		KBytes		Visits		Visits		Hostname										
1	67	100.00%	55	100.00%	89	100.00%	4	100.00%	localhost										
Top 3 of 3 Total Referrers																			
#	Hits		Referrer																
1	44	65.67%	http://localhost/webalizer/																
2	20	29.85%	(Direct Request)																
3	3	4.48%	http://localhost/																
Top 2 of 2 Total User Agents																			

RESULT:

Apache server using using webalizer tool is Analayzed.