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Alamat Github : <https://github.com/shintaqurrotaaini/Tugas-Praktikum-Individu-Sistem-Operasi-Linux/upload>

| LAPORAN TUGAS PRAKTIKUM | | |
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| No | Jenis Pratikum | Foto |
| 1 | Manajemen File | <pre>Welcome to Cloud Shell! Type "help" to get started. To set your Cloud Platform project in this session use "gcloud config set project [PROJECT_ID]" g32_shintaqurrotaaini@cloudshell:~\$ mkdir tugas_sistem_operasi g32_shintaqurrotaaini@cloudshell:~\$ cd tugas_sistem_operasi g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ touch data1.txt g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ touch data2.txt g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ mkdir backup g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ mv data2.txt backup g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ ls -r data1.txt backup g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ ls backup data2.txt</pre> |
| 2 | Manajemen Proses | <p>Langkah-langkah mematikan proses menggunakan perintah kill :</p> <ol style="list-style-type: none">Ketikkan perintah ps -aux untuk menampilkan program apa saja yang ada di linux) termasuk PID -nya <pre>Welcome to Cloud Shell! Type "help" to get started. To set your Cloud Platform project in this session use "gcloud config set project [PROJECT_ID]" g32_shintaqurrotaaini@cloudshell:~\$ cd tugas_sistem_operasi g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ ps -aux USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 1 0.0 0.0 4224 204 ? Ss 11:56 0:00 /bin/bash /google/scripts/onrun.sh sleep infinity root 9 0.0 0.0 222140 3012 ? Ssl 11:56 0:00 /usr/sbin/crond root 25 0.0 0.3 39004 2892 ? S 11:56 0:00 /usr/bin/python /usr/bin/supervisord -n -c /google/devshell/supervisord.conf --pidfile=/var/ root 26 0.0 0.0 6196 1528 ? S 11:56 0:00 logger -t supervisord root 70 0.0 0.0 12020 4200 ? Ss 11:56 0:00 sshd: /usr/sbin/sshd -p 22 -o AuthorizedKeysFile=/etc/ssh/keys/authorized_keys [listener] 0 root 207 0.0 0.8 196336 73140 ? Sl 11:56 0:00 /usr/bin/docker -p /var/run/docker.pid -sru=1460 root 265 0.1 0.5 180056 44136 ? Ssl 11:56 0:01 containerd --config /var/run/docker/containerd/containerd.toml root 272 0.0 0.0 1230096 4848 ? Sl 11:56 0:00 /google/devshell/editor/proxy/editor-proxy -static-content-dir=/google/devshell/editor/code- root 273 0.0 0.0 16320 6204 ? S 11:56 0:00 sudo /google/devshell/tmux-agent root 278 0.0 0.0 122100 2560 ? Sl 11:56 0:00 /google/devshell/tmux-agent root 445 0.0 0.0 2696 1044 ? S 11:56 0:00 sleep infinity g32_shi+ 462 0.0 0.0 7280 2014 ? Ss 11:57 0:00 tmux new-session -A -D -n cloudshell -a 905301007 g32_shi+ 463 0.0 0.0 8792 5916 pts/2 Scs+ 11:57 0:00 -bash root 960 0.0 0.0 13992 9112 ? Ss 12:15 0:00 sshd: g32_shintaqurrotaaini [priv] g32_shi+ 864 0.0 0.0 14252 6420 ? Ss 12:15 0:00 sshd: g32_shintaqurrotaaini@pts/0 g32_shi+ 865 0.0 0.0 7340 3776 pts/0 Scs+ 12:15 0:00 bash -c (sudo touch /var/run/google/devshell/34567 &) g32_shi+ 868 0.0 0.0 7604 4340 pts/0 Scs+ 12:15 0:00 /bin/bash --nrc --noprofile root 892 0.0 0.0 13992 9112 ? Ss 12:17 0:00 sshd: g32_shintaqurrotaaini [priv] g32_shi+ 994 0.0 0.0 14252 6420 ? Ss 12:17 0:00 sshd: g32_shintaqurrotaaini@pts/1 g32_shi+ 995 0.0 0.0 7340 3608 pts/1 Scs+ 12:17 0:00 bash -c if [-f /google/devshell/start-shell.sh]; then /google/devshell/start-shell.sh g32_shi+ 896 0.0 0.0 7340 3736 pts/1 Scs+ 12:17 0:00 /bin/bash /google/devshell/start-shell.sh 986562170 false g32_shi+ 937 0.0 0.0 8880 1484 pts/1 Scs+ 12:17 0:00 tmux new-session -A -D -n cloudshell -a 986562170 g32_shi+ 890 0.0 0.0 8792 5956 pts/3 Scs+ 12:17 0:00 -bash g32_shi+ 1258 0.0 0.0 10888 4584 pts/3 Rcs+ 12:18 0:00 ps aux</pre> <ol style="list-style-type: none">Gunakan perintah sudo kill -9 [nama PID] untuk menghentikan proses yang sedang dijalankan <pre>g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ sudo kill -9 463</pre> |

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| | | <p>3. Jika proses itu sudah dihentikan maka jika kita ketik perintah <code>ps -aux</code>, otomatis nama PID yang tadi dihentikan akan hilang</p> <pre> g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ ps -aux USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND root 1 0.0 0.0 4324 3284 ? Ss 11:56 0:00 /bin/bash /google/scripts/onrun.sh sleep infinity syslog 9 0.0 0.0 222140 3032 ? Ss 11:56 0:00 /usr/sbin/syslogd root 25 0.0 0.3 39004 28992 ? S 11:56 0:00 /usr/bin/python /usr/bin/supervisord -n -c /google/devshell/supervisord.conf --pidfile=/var/ root 26 0.0 0.0 6196 1528 ? S 11:56 0:00 logger -t supervisord root 70 0.0 0.0 12020 4200 ? Sca 11:56 0:00 sshd: /usr/sbin/sshd -p 22 -o AuthorizedKeysFile=/etc/ssh/keys/authorized_keys [listener] 0 root 207 0.0 0.8 1848336 72864 ? Sl 11:56 0:00 /usr/bin/dockerd -g /var/run/docker-gid -misc1460 root 265 0.1 0.5 1800576 44136 ? Ssl 11:56 0:01 containerd --config /var/run/docker/containerd/containerd.toml root 272 0.0 0.0 1230096 4848 ? Sl 11:56 0:00 /google/devshell/editor/proxy/editor-proxy --static-content-dir=/google/devshell/editor/code- root 273 0.0 0.0 16320 6204 ? S 11:56 0:00 sudo /google/devshell/tmux-agent root 278 0.0 0.0 1226100 2560 ? Sl 11:56 0:00 /google/devshell/tmux-agent root 445 0.0 0.0 2696 1044 ? S 11:56 0:00 sleep infinity g32_shi+ 442 0.0 0.0 7280 2952 ? Sca 11:57 0:00 tmux new-session -A -D -n cloudshell -s 985301807 root 860 0.0 0.0 13992 8112 ? Sca 12:15 0:00 sshd: g32_shintaqurrotaaini [priv] g32_shi+ 864 0.0 0.0 14252 6420 ? Sca 12:15 0:00 sshd: g32_shintaqurrotaaini@pts/0 g32_shi+ 865 0.0 0.0 7340 3716 pts/0 Sca 12:15 0:00 bash -c (sudo touch /var/run/google/devshell/34567 &) g32_shi+ 869 0.0 0.0 7604 4340 pts/0 Sca 12:15 0:00 /bin/bash --nrc --no-profile root 892 0.0 0.0 13992 8112 ? Sca 12:17 0:00 sshd: g32_shintaqurrotaaini [priv] g32_shi+ 894 0.0 0.0 14252 6428 ? Sca 12:17 0:00 sshd: g32_shintaqurrotaaini@pts/1 g32_shi+ 895 0.0 0.0 7340 3608 pts/1 Sca 12:17 0:00 bash -c if [-f /google/devshell/start-shell.sh]; then /google/devshell/start-shell.sh g32_shi+ 896 0.0 0.0 7340 3736 pts/1 Sca 12:17 0:00 /bin/bash /google/devshell/start-shell.sh 986562170 false g32_shi+ 897 0.0 0.0 6880 1484 pts/1 Sca 12:17 0:00 tmux new-session -A -D -n cloudshell -s 986562170 g32_shi+ 898 0.0 0.0 8792 5960 pts/3 Sca 12:17 0:00 -bash g32_shi+ 1210 0.0 0.0 10888 4640 pts/3 Rca 12:21 0:00 ps -aux </pre> |
| 3 | Pengelolaan izin file | <pre> g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ touch script.sh g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ chmod 700 script.sh g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ ls -l total 4 drwxrwxr-x 2 g32_shintaqurrotaaini g32_shintaqurrotaaini 4096 Dec 12 11:12 backup -rw-rw-r-- 1 g32_shintaqurrotaaini g32_shintaqurrotaaini 0 Dec 12 11:12 data1.txt -rwx----- 1 g32_shintaqurrotaaini g32_shintaqurrotaaini 0 Dec 13 02:24 script.sh </pre> |
| 4 | Shell scripting | <pre> g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ touch info_system.sh g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ pico info_system.sh g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ chmod +x info_system.sh g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$./info_system.sh waktu saat ini: Fri Dec 13 02:57:57 AM UTC 2024 nama pengguna: g32_shintaqurrotaaini total penggunaan disk: Filesystem Size Used Avail Use% Mounted on overlay 95G 60G 36G 63% / tmpfs 64M 0 64M 0% /dev /dev/sdal 95G 60G 36G 63% /root /dev/disk/by-id/google-home-part1 4.8G 344K 4.6G 1% /home /dev/root 2.0G 1.2G 814M 59% /usr/lib/modules shm 64M 0 64M 0% /dev/shm </pre> <p>Shell script :</p> <pre> #!/bin/bash # Menampilkan waktu saat ini echo "waktu saat ini: \$(date)" # Menampilkan nama pengguna echo "nama pengguna: \$(whoami)" # Menampilkan total penggunaan disk echo "total penggunaan disk:" df -h </pre> <p>Penjelasan :</p> <p>#!/bin/bash : baris pertama ini menandakan bahwa csript akan dijalankan oleh shell bash</p> <p>echo : perintahh echo digunakan untuk menampilkan teks ke layar</p> <p>\$(date) : untuk menampilkan waktu saat ini</p> <p>\$(whoami) : untuk menampilkan nama pengguna yang sedang login</p> <p>df : digunakan untuk menampilkan informasi tentang sistem file</p> <p>-h : menampilkan ukuran dalam format yang lebih mudah dibaca seperti MB, GB</p> |

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| | | <p><i>chmod +x info_system.sh</i> : untuk memberikan izin eksekusi pada script info_system.sh</p> <p><i>./info_system.sh</i> : menjalankan script info_system.sh</p> |
| 5 | Manajemen jaringan | <pre>g32_shintaqurrotaaini@cloudshell:~/tugas_sistem_operasi\$ ping -c 5 www.google.com PING www.google.com (74.125.68.99) 56(84) bytes of data: 64 bytes from sc-in-f99.1e100.net (74.125.68.99): icmp_seq=1 ttl=114 time=2.43 ms 64 bytes from sc-in-f99.1e100.net (74.125.68.99): icmp_seq=2 ttl=114 time=0.398 ms 64 bytes from sc-in-f99.1e100.net (74.125.68.99): icmp_seq=3 ttl=114 time=0.433 ms 64 bytes from sc-in-f99.1e100.net (74.125.68.99): icmp_seq=4 ttl=114 time=0.504 ms 64 bytes from sc-in-f99.1e100.net (74.125.68.99): icmp_seq=5 ttl=114 time=0.490 ms --- www.google.com ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4067ms rtt min/avg/max/mdev = 0.398/0.850/2.428/0.789 ms</pre> <p>penjelsan :</p> <p><i>ping</i> : perintah untuk melakukan ping</p> <p><i>-c 5</i> : opsi untuk membatasi jumlah paket menjadi 5</p> <p><u>www.google.com</u> : Alamat IP atau nama domain yang akan di ping</p> |