

Laporan Hands On
Kamis, 25 Oktober 2018

**Membuat Virtual Machine pada Cloudmatika
dan Instalasi pada Linux dengan PuTTY**

Cloud Sore
Kelompok 5:

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Pembuatan *virtual machine* (*New Server*) dilakukan dengan mengakses <https://cloudmatika.com>, Kemudian Log In dengan menggunakan user ID: Cloudsore5 dan Password: "Digitalent:2018".

Setelah sukses masuk cloudmatika, maka akan tampak beberapa tab, yaitu:

- A. *Home* : ringkasan kegiatan
- B. *Cloud* : untuk membuat *server*
- C. *Help & Support*: Sebagai basis pengetahuan dan media bantu jika ada pertanyaan umum lebih lanjut.

Tahapan membuat *Cloud*:

1. Klik menu *Cloud* lalu klik *New server*, lalu masukkan data berikut :

Server name : cloudsore5

Server configuration : minimal (karena trial)

I will manage the OS kernel : centang (untuk membuat container atau VM, jika VM maka checklist)

OS : free linux

number of IPv4 addresses : 1

Lalu klik next

OS : ubuntu 16.04

Gambar 1. Pembuatan server di Cloudmatika.

The screenshot displays the 'New Server' configuration interface on the Cloudmatika website. The browser address bar shows the URL: https://cloudmatika.com/workspace.html?bw_id=1aa3d4d7c219475a1b850e5477ec8d57. The page header includes the Cloudmatika logo, navigation tabs (Home, Cloud, Help & Support), and user information (Subscriber: kelompok lima, Account ID: 1021451, Subscription: CloudServer VDC, Next.com: 1041917). The main content area is titled 'New Server' and prompts the user to 'Please specify the server settings.' The 'General' section includes a 'Server Name' field with the value 'cloudsore5' and a 'Description' field. The 'Server Configuration' section features a 'Preset Configurations' dropdown menu with 'MINIMAL' selected, and input fields for 'CPU Cores' (32), 'CPU Frequency' (2400 MHz), 'RAM' (512 MB), and 'Disk Space' (20 GB). The 'I will manage the OS kernel' checkbox is checked, and the 'Operating System' is set to 'Free Linux'. The 'Public Network Settings' section includes a 'Bandwidth' field (100,000 Kbit/s) and a 'Number of IPv4 Addresses' field (1). The page concludes with a note about network settings and 'Next' and 'Cancel' buttons.

Gambar 2. Pemilihan OS.

The screenshot shows the 'New Server' page on the CloudMatika website. The browser address bar displays the URL: https://cloudmatika.com/workspace.html?bw_id=e888799403b1e53d454d0c7ea5047361. The page header includes the CloudMatika logo, navigation links (Home, Cloud, Help & Support), and user information (Subscriber: kelompok lima (Account ID: 1021451), Subscription: CloudServer VDC (test.com):1041917, Logout). The main content area is titled 'New Server' and includes a breadcrumb 'Odin Panel > Cloud >'. Below the title, it says 'Please choose the operating system.' and 'Operating System'. A dropdown menu is open for 'Edition', showing options: ubuntu-16.04, ubuntu-16.04 (highlighted), debian-7.0, centos-6, scientificlinux-6, debian-8.0, ubuntu-14.04, and centos-7. There are 'Back' and 'Next' buttons at the bottom of the dropdown.

Gambar 3. Ringkasan detail pembuatan server baru.

The screenshot shows the 'New Server' page on the CloudMatika website, displaying the 'New Server Summary' and 'Estimated Price' sections. The browser address bar displays the URL: https://cloudmatika.com/workspace.html?bw_id=b73fcb468.... The page header includes the CloudMatika logo, navigation links (Home, Cloud, Help & Support), and user information (Subscriber: kelompok lima (Account ID: 1021451), Subscription: CloudServer VDC (test.com):1041917). The main content area is titled 'New Server' and includes a breadcrumb 'Odin Panel > Cloud >'. Below the title, it says 'Screen ID'. The 'New Server Summary' section lists the following details:

Name	cloudsore5a
Description	
Backup Schedule	No backup
CPU Cores	1
CPU Frequency	2,000 MHz
RAM	512 MB
Disk Space	20 GB
Disk Storage	Network Storage
Bandwidth	100,000 Kbit/s
Technology	Virtual Machine
Operating System	Free Linux
Number of IPv4 Addresses	1
Edition	ubuntu-16.04
Architecture	x86_64
Language	English

The 'Estimated Price' section lists the following details:

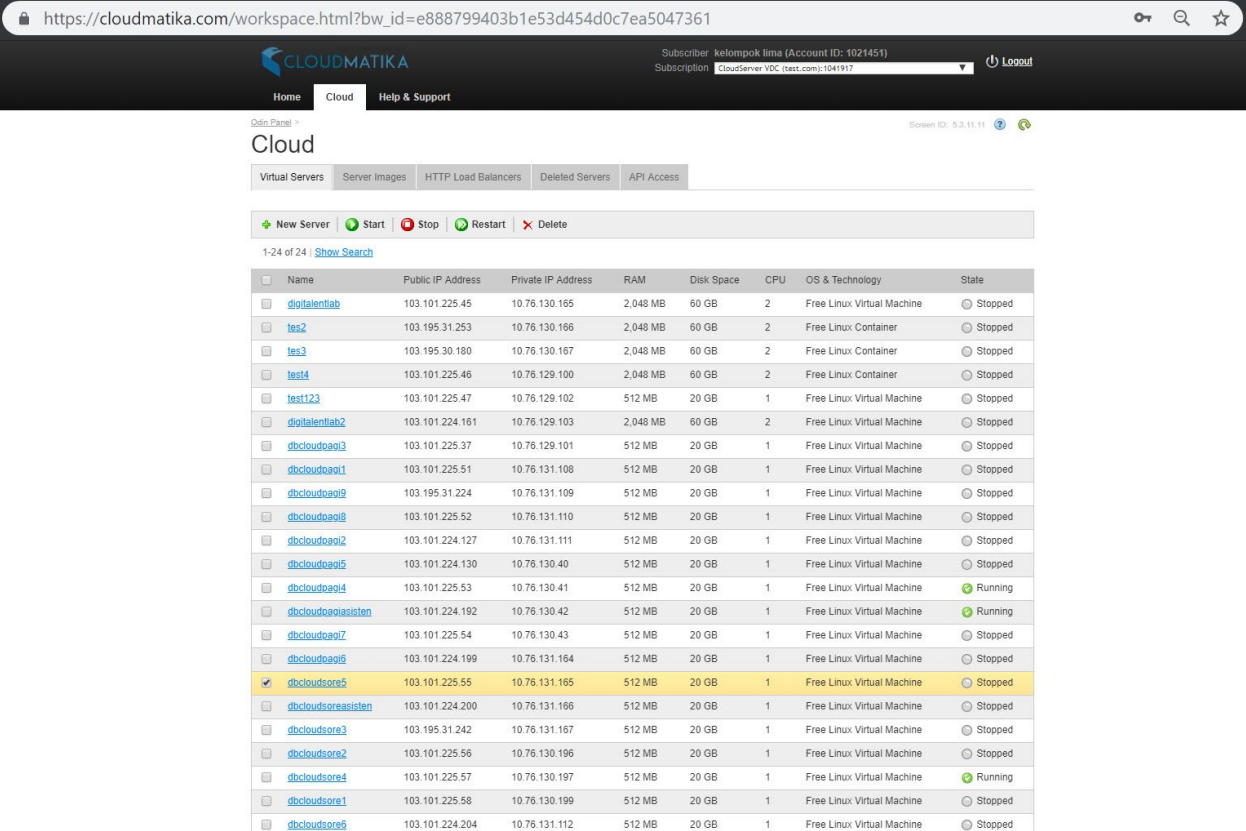
Estimated Price	304280.0000 \$ per month
Tax Total	30428.0000 \$
Total Estimated Price	334708.0000 \$ per month

The 'Start upon creation' section includes a checkbox labeled 'Start after creation' which is checked. At the bottom, there are three buttons: 'Back', 'Finish', and 'Cancel'. The footer of the page states: © 2018 Ingram Micro Inc. All rights reserved.

✓ New server creation is in progress.

2. Akan muncul tampilan *list cloud*, klik dbcloudsore5, untuk mengganti *password* klik *Change password* dan selesai. Maka selanjutnya nama server akan tampil seperti pada gambar berikut.

Gambar 3. Tampilan keterangan Nama Server, IP Publik dan VM yang sudah jadi.



The screenshot shows the CloudMatika dashboard with a list of virtual servers. The 'dbcloudsore5' server is highlighted in yellow. The dashboard includes a navigation bar with 'Home', 'Cloud', and 'Help & Support' tabs. Below the navigation bar, there are tabs for 'Virtual Servers', 'Server Images', 'HTTP Load Balancers', 'Deleted Servers', and 'API Access'. The 'Virtual Servers' tab is active, showing a list of servers with columns for Name, Public IP Address, Private IP Address, RAM, Disk Space, CPU, OS & Technology, and State. The 'dbcloudsore5' server is highlighted in yellow.

Name	Public IP Address	Private IP Address	RAM	Disk Space	CPU	OS & Technology	State
digitalentab	103.101.225.45	10.76.130.165	2,048 MB	60 GB	2	Free Linux Virtual Machine	Stopped
tes2	103.195.31.253	10.76.130.166	2,048 MB	60 GB	2	Free Linux Container	Stopped
tes3	103.195.30.180	10.76.130.167	2,048 MB	60 GB	2	Free Linux Container	Stopped
tes4	103.101.225.46	10.76.129.100	2,048 MB	60 GB	2	Free Linux Container	Stopped
test123	103.101.225.47	10.76.129.102	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
digitalentab2	103.101.224.161	10.76.129.103	2,048 MB	60 GB	2	Free Linux Virtual Machine	Stopped
dbcloudoag13	103.101.225.37	10.76.129.101	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudoag11	103.101.225.51	10.76.131.108	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudoag19	103.195.31.224	10.76.131.109	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudoag18	103.101.225.52	10.76.131.110	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudoag12	103.101.224.127	10.76.131.111	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudoag15	103.101.224.130	10.76.130.40	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudoag14	103.101.225.53	10.76.130.41	512 MB	20 GB	1	Free Linux Virtual Machine	Running
dbcloudoag1asisten	103.101.224.192	10.76.130.42	512 MB	20 GB	1	Free Linux Virtual Machine	Running
dbcloudoag17	103.101.225.54	10.76.130.43	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudoag16	103.101.224.199	10.76.131.164	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudsore5	103.101.225.55	10.76.131.165	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudsoreasisten	103.101.224.200	10.76.131.166	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudsore3	103.195.31.242	10.76.131.167	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudsore2	103.101.225.56	10.76.130.196	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudsore4	103.101.225.57	10.76.130.197	512 MB	20 GB	1	Free Linux Virtual Machine	Running
dbcloudsore1	103.101.225.58	10.76.130.199	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped
dbcloudsore6	103.101.224.204	10.76.131.112	512 MB	20 GB	1	Free Linux Virtual Machine	Stopped

Jika di klik pada server name-nya terdapat beberapa menu tab seperti Console, Autoscale, Performance, Backups and Images, Firewall dan History.

Gambar 4. Data umum dan menu tab yang ada pada VM.

The screenshot shows the CloudMatika dashboard for a virtual machine named 'dbcloudsore5'. The top navigation bar includes 'Home', 'Cloud', and 'Help & Support'. The 'Cloud' tab is active, displaying a list of VMs. The 'dbcloudsore5' VM is selected, showing its general information and configuration options.

General Information:

- State: Stopped
- Backup Schedule: No backup [configure]
- Password: [reset] [change]
- OS / Technology: ubuntu-16.04_x86_64_English / Free Linux Virtual Machine

Hardware Configuration:

- Autoscale: Disabled
- CPU: 1 * 2,000 MHz
- RAM: 512 MB
- Disk Space: 20 GB

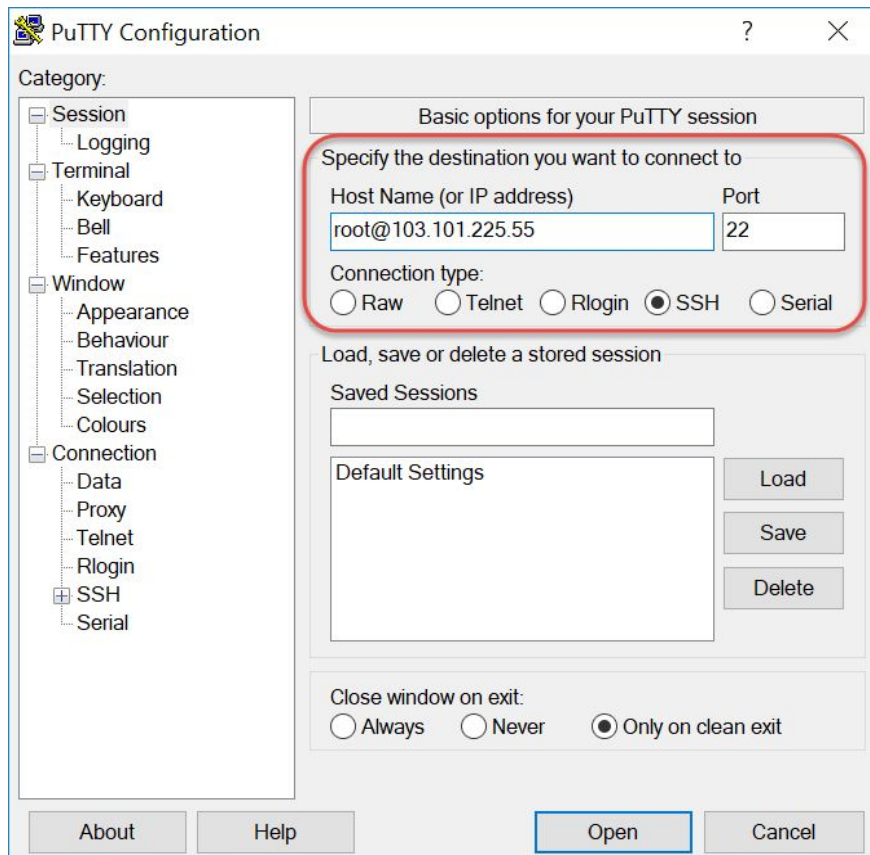
Network Configuration:

- Hostname: dbcloudsore5
- Bandwidth: 100,000 Kbit/s
- Public IP Address: 103.101.225.55
- Private IP Address: 10.76.131.165

Selanjutnya adalah proses instalasi LEMP yang terdiri dari Nginx (E), MySQL (M), PHP (P) di Linux melalui PuTTY.

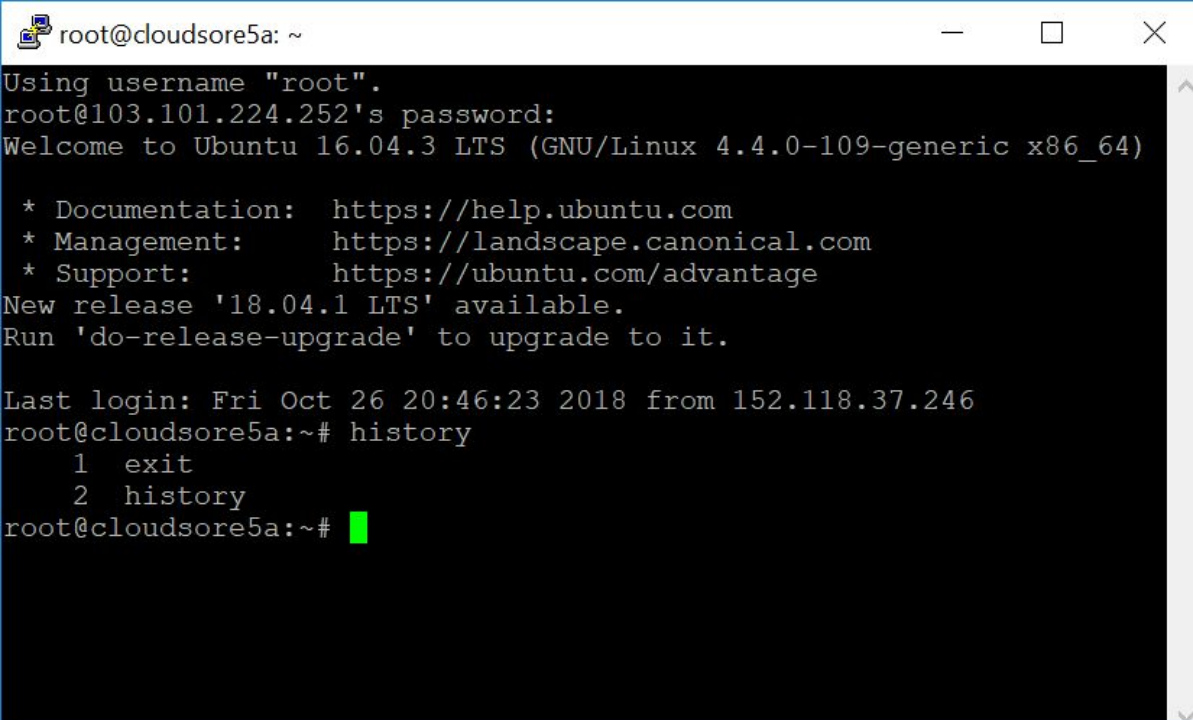
3. SSH ke Server

Akses PuTTY dengan Hostname : root@103.101.225.55



Kemudian login dengan nama server dan password yang telah dibuat pada Cloudmatika sebelumnya.

Gambar 6. Tampilan setelah login.

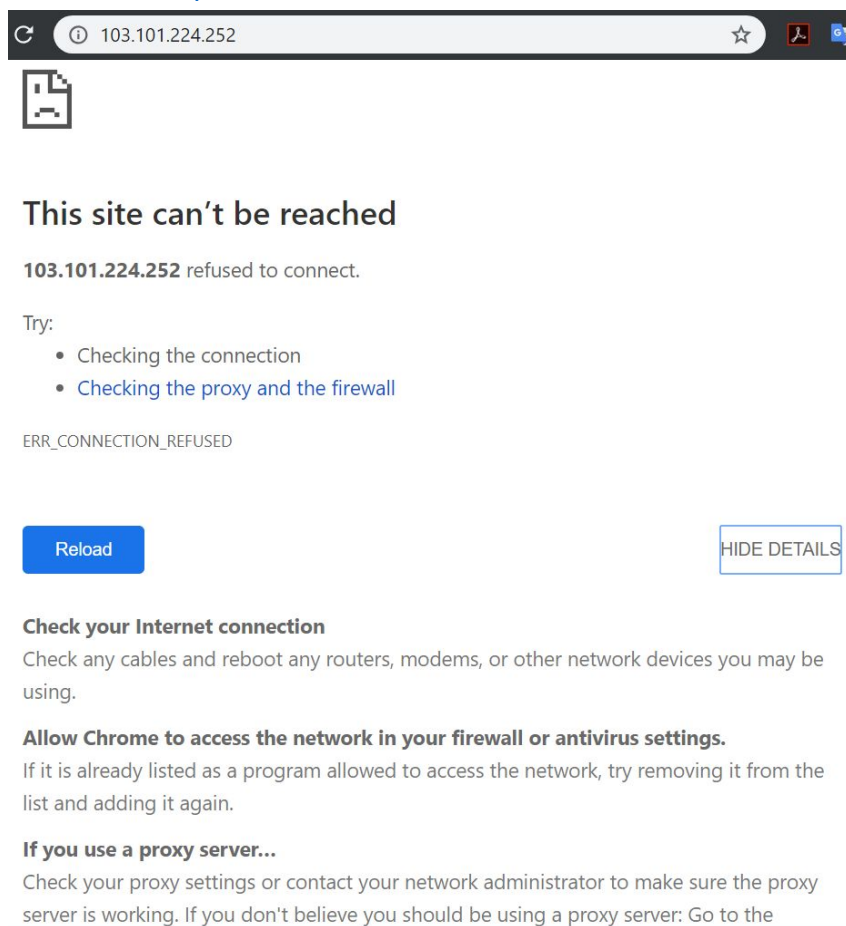
A terminal window titled 'root@cloudsore5a: ~' with standard window controls. The terminal text shows a login process for 'root' on IP '103.101.224.252'. It displays the Ubuntu 16.04.3 LTS welcome message, system links for documentation, management, and support, a notification about a new release '18.04.1 LTS', and the last login timestamp. The user then enters the 'history' command, showing a list of previous commands: 'exit' and 'history'. The prompt returns to 'root@cloudsore5a:~#'.

```
root@cloudsore5a: ~
Using username "root".
root@103.101.224.252's password:
Welcome to Ubuntu 16.04.3 LTS (GNU/Linux 4.4.0-109-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage
New release '18.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Fri Oct 26 20:46:23 2018 from 152.118.37.246
root@cloudsore5a:~# history
  1  exit
  2  history
root@cloudsore5a:~#
```

Gambar 7. Tampilan web ketika awal dibuat.



4. Masukkan *syntax* :

apt-get update -> untuk *update list* aplikasi apa saja yang ada di dalamnya ke repository.

apt-get install nginx -> untuk *me-install webserver*

Masukan *public ip address* di *browser* -> untuk melihat *webserver*, pada *webserver* muncul tulisan *Welcome to nginx*.

(After this operation, 9,785 kB of additional disk space will be used.

Do you want to continue? [Y/n])

Gambar 8. Setelah update dan instal nginx.



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

5. *Install MySQL* : untuk *me-install MySQL* pada VM

apt-get install mysql-server-> setelah ter-*install* masukkan *password* baru.

Untuk membuka MySQL -> mysql -u root mysql. Bisa juga untuk mengganti *password*.

(After this operation, 202 MB of additional disk space will be used.

Do you want to continue? [Y/n])

6. *Install PHP untuk processing*

apt-get install php-fpm php-mysql -> disk akan terpakai 14.5MB. Prosesnya lama karena mengambil data dari yang lainnya (misal Ubuntu)

(After this operation, 14.5 MB of additional disk space will be used.

Do you want to continue? [Y/n])

nano /etc/php/7.0/fpm/php.ini -> muncul file tulisan lalu ubah baris dengan isi
;cgi.fix_pathinfo=1 menjadi cgi.fix_pathinfo=0. Lalu save dan exit.

systemctl restart php7.0-fpm -> untuk me-restart agar system berjalan sesuai dengan yang sudah diubah.

Untuk mengecek dapat juga dengan cara -> Stop php7.0-fpm

start php7.0-fpm

7. Konfigurasi Nginx untuk menggunakan PHP Processor : untuk mendaftarkan aplikasi di nginx.

Hapus tagar agar yang awalnya hanya command agar dapat dibaca oleh system.

*untuk melihat daftar perintah apa saja yang sudah dilakukan -> *history*. Untuk memakai ulang -> !(nomor)

8. Buat file PHP untuk tes konfigurasi: *script* untuk menampilkan versi dari PHP

9. Install phpMyAdmin :

apt-get install phpmyadmin -> Muncul konfigurasi PHP MyAdmin, pilih Apache, lalu masukkan password.

ln -s /usr/share/phpmyadmin /var/www/html -> untuk *link*

phpenmod mcrypt

systemctl restart php7.0-fpm

akses `http://public ip adress/phpmyadmin` -> muncul *dashboard* phpmyadmin untuk administrasi MySQL.

TUGAS LANJUTAN - Jumat 26 Oktober 2018

Menambahkan user masing - masing kelompok

Cmd: "Adduser nama user"