- **`INDEX=123456` → замени**
- `DATUM=ddmmyyyy`
- `SERVER_IP` → динамичката IP (провери со `ip a`)

1️⃣ Корисник + sudo + hostname (15 поени)

Најава

```
ssh student@IP_ADRESA
# лозинка: Laboratorija11!
```

📌 Креирање корисник

```
sudo useradd -m anms123456
sudo passwd anms123456
```

📌 Додавање sudo привилегии

(ВАЖНО: експлицитно бара /etc/sudoers → носи поени)

```
sudo visudo
```

Додај на крај:

```
anms123456 ALL=(ALL) ALL
```

👉 Проверка:

```
su - anms123456
sudo whoami
```

📌 Hostname

```
sudo hostnamectl set-hostname ddmmyyyy.ans.edu.mk
```

Провери:

```
hostname
```

2️⃣ DNS сервер + master + slave (25 поени)

📌 Инсталација

```
sudo apt update
```

```
sudo apt install bind9 bind9utils bind9-dnsutils -y
```

📌 named.conf.options

```
sudo nano /etc/bind/named.conf.options
options {
    directory "/var/cache/bind";

    listen-on { any; };
    allow-query { any; };

    recursion yes;
    dnssec-validation no;
};
sudo systemctl restart bind9
```

📌 Master зона: index.com

```
sudo nano /etc/bind/named.conf.local
zone "123456.com" {
    type master;
    file "/etc/bind/db.123456.com";
};
```

📌 Zone file

```
sudo cp /etc/bind/db.local /etc/bind/db.123456.com
sudo nano /etc/bind/db.123456.com
$TTL 604800
@   IN  SOA name1.123456.com. admin.123456.com. (
        2022061701
        604800
        86400
        2419200
        604800 )
```

```
@       IN  NS      name1.123456.com.
name1   IN  A       SERVER_IP
web     IN  A       SERVER_IP
monitor IN  A       SERVER_IP
```

📌 Проверки

```
sudo named-checkconf
sudo named-checkzone 123456.com /etc/bind/db.123456.com
```

📌 DNS сервер како прв (НЕ бришеј други!)

```
sudo nano /etc/resolv.conf
```

Hajrope:

```
nameserver 127.0.0.1
```

📌 Slave зони (многу поени)

```
sudo nano /etc/bind/named.conf.local
zone "anms.com.mk" {
    type slave;
    masters { 10.10.16.200; };
    file "/var/cache/bind/anms.com.mk";
};

zone "ans.edu.mk" {
    type slave;
    masters { 10.10.16.200; };
    file "/var/cache/bind/ans.edu.mk";
};
sudo systemctl restart bind9
```

📌 Проверка дали се преземени

```
ls /var/cache/bind/
dig @localhost anms.com.mk
```

```
dig @localhost ans.edu.mk
```

3️⃣ Apache (10 поени)

```
sudo apt install apache2 -y
sudo systemctl enable apache2
sudo systemctl start apache2
```

4️⃣ WordPress + VirtualHost (20 поени)

📌 PHP + екстензии

```
sudo apt install php php-mysql php-xml php-curl php-gd php-mbstring php-zip php-intl -y
```

📌 MariaDB

```
sudo apt install mariadb-server -y
sudo mysql_secure_installation
sudo mysql -u root
CREATE DATABASE wpdb;
CREATE USER 'wpuser'@'localhost' IDENTIFIED BY 'wppass';
GRANT ALL PRIVILEGES ON wpdb.* TO 'wpuser'@'localhost';
FLUSH PRIVILEGES;
EXIT;
```

📌 WordPress

```
cd /var/www
sudo wget https://wordpress.org/latest.tar.gz
sudo tar -xvzf latest.tar.gz
sudo chown -R www-data:www-data wordpress
```

📌 VirtualHost

```
sudo nano /etc/apache2/sites-available/wp.conf
<VirtualHost *:80>
```

```
    ServerName wp.123456.com
    DocumentRoot /var/www/wordpress

    <Directory /var/www/wordpress>
        AllowOverride All
        Require all granted
    </Directory>
</VirtualHost>
sudo a2ensite wp.conf
sudo a2enmod rewrite
sudo systemctl restart apache2
```

👉 Во browser:

```
http://wp.123456.com
```

5️⃣ FTP сервер (15 поени)

📌 Инсталација

```
sudo apt install vsftpd -y
```

📌 Корисник editor

```
sudo useradd -m editor
sudo passwd editor
```

📌 FTP директориум

```
mkdir -p /home/student/ftp
sudo chown editor:editor /home/student/ftp
```

📌 Конфигурација

```
sudo nano /etc/vsftpd.conf
```

Провери/овозможи:

```
write_enable=YES
local_enable=YES
```

```
sudo systemctl restart vsftpd
```

---

6 Firewall + iptables (15 поени)

📌 UFW

```
sudo apt install ufw -y
sudo ufw default deny incoming
sudo ufw default allow outgoing
sudo ufw allow ssh
sudo ufw allow 53
sudo ufw allow 80
sudo ufw allow 21
sudo ufw enable
sudo ufw status
```

📌 IPTABLES (што да напишеш на ispiti)

```
iptables -P INPUT DROP
iptables -P OUTPUT ACCEPT

iptables -A INPUT -p tcp --dport 22 -j ACCEPT
iptables -A INPUT -p tcp --dport 21 -j ACCEPT
iptables -A INPUT -p tcp --dport 80 -j ACCEPT
iptables -A INPUT -p udp --dport 53 -j ACCEPT
iptables -A INPUT -p tcp --dport 53 -j ACCEPT
iptables -A INPUT -m state --state ESTABLISHED,RELATED -j ACCEPT
```