

# Installation Summary Sheet – SAE 2.03 Step 3

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## Objective

The goal of this step is to create a prototype web hosting environment for a coworking company. The selected stack includes Ubuntu (OS), Nginx (HTTP server), PostgreSQL (database), and PHP with PHP-FPM (for dynamic web content).

### 1. Operating System: Ubuntu

Ubuntu was chosen for its user-friendliness and widespread support.

Updates were applied using:

```
sudo apt update && sudo apt upgrade
```

### 2. Web Server: Nginx

Installed via:

```
sudo apt install nginx
```

Service status checked with:

```
systemctl status nginx
```

If inactive:

```
sudo systemctl start nginx
```

Web server test:

```
curl localhost
```

### 3. PHP and Extensions (PHP-FPM, PHP-PGSQL)

Installed with:

```
sudo apt install php php-fpm php-pgsql
```

PHP version checked via:

```
php -v
```

PHP-FPM service verified with:

```
systemctl status php8.1-fpm
```

## 4. Nginx Configuration for PHP

Configuration file edited with:

```
sudo nano /etc/nginx/sites-available/default
```

PHP handling block added:

```
location ~ \.php$ {  
    include snippets/fastcgi-php.conf;  
    fastcgi_pass unix:/run/php/php8.1-fpm.sock;  
}
```

Test file created:

```
sudo nano /var/www/html/info.php
```

Nginx reloaded:

```
sudo systemctl reload nginx
```

Verified by visiting:

```
http://localhost/info.php
```

## 5. Database: PostgreSQL

Installed with:

```
sudo apt install postgresql
```

Accessed via:

```
sudo -u postgres psql
```

Inside PostgreSQL:

```
CREATE DATABASE mydb;  
CREATE USER myuser WITH ENCRYPTED PASSWORD 'mypassword';  
GRANT ALL PRIVILEGES ON DATABASE mydb TO myuser;
```

## 6. PHP – PostgreSQL Connection Test

A test PHP script was used to connect to the database.

An intentional error (missing table) confirmed the connection was working.