

## **Task 0: Simple Web Stack**

### **Description:**

This project implements a simple web infrastructure using a LAMP stack.

### **Components:**

- 1 server
- 1 web server (Nginx)
- 1 application server
- 1 application files (code base)
- 1 database (MySQL)
- 1 domain name foobar.com configured with a www record pointing to server IP 8.8.8.8

### **Explanations:**

- **\*\*Server\*\***: Provides hosting for all components.
- **\*\*Domain Name\*\***: Maps human-readable domain (foobar.com) to server IP.
- **\*\*www DNS Record\*\***: Points the domain to the web server.
- **\*\*Web Server (Nginx)\*\***: Handles HTTP requests and serves static content.
- **\*\*Application Server\*\***: Executes dynamic code and interacts with the database.
- **\*\*Database (MySQL)\*\***: Stores website data.

### **Issues:**

- Single Point of Failure (SPOF)
- Downtime during maintenance
- Limited scalability with increased traffic