**ITP111 – System Administration and Maintenance**

**MIDTERM – LABORATORY ACTIVITY 2**

Running a Website in Nginx in Ubuntu Server

**Instruction:**

1. Run the Ubuntu Server on your Virtual Machine(VM).
2. Login on your server account.
3. Do the following and save screenshots of the output of the following commands. Submit in PDF format

**Materials:**

* Ubuntu (either a physical server or a virtual machine)
* Basic understanding of Linux commands

**Create a Simple Website**

1. **Create a New Directory for the Website:** Nginx serves content from /var/www/. Create a new directory for your website.

sudo mkdir -p /var/www/simple\_website

1. **Assign Proper Permissions:** Change ownership of the directory to the current user.

sudo chown -R $USER:$USER /var/www/simple\_website

1. **Create an HTML File:** Create a basic HTML file in the website directory.

nano /var/www/simple\_website/index.html

Add the following content:

<html>

<head>

<title>Welcome to My Simple Website</title>

</head>

<body>

<h1>Hello, this is a test website running on Nginx!</h1>

</body>

</html>

1. **Save the File:** Press CTRL + X, then Y, and hit Enter to save and exit the nano editor.

**Configure Nginx to Serve the Website**

1. **Create a New Server Block:** Server blocks (virtual hosts) are configurations that enable Nginx to serve different websites. Create a new server block configuration file.

sudo nano /etc/nginx/sites-available/simple\_website

Add the following configuration:

server {

listen 80;

server\_name localhost;

root /var/www/simple\_website;

index index.html;

location / {

try\_files $uri $uri/ =404;

}

}

1. **Enable the Configuration:** Create a symbolic link to enable the server block.

sudo ln -s /etc/nginx/sites-available/simple\_website /etc/nginx/sites-enabled/

1. **Test Nginx Configuration:** Verify that the configuration file is correct.

sudo nginx -t

1. **Reload Nginx:** Reload Nginx to apply the new configuration.

sudo systemctl reload nginx

**Verify the Website**

1. **Open a Web Browser:** In your web browser, navigate to your server’s IP address or localhost:

*http://<your-server-ip>*

1. **Verify the Webpage:** You should see the "Hello, this is a test website running on Nginx!" message from your HTML file.
2. Create a simple CRUD static pages of a simple Student Information System and test run on the server
   1. Data Page
   2. Add Page
   3. Edit Page
   4. Delete