Answers to SEC-2 Lab Programs

1. Demonstrate Basic File Commands in Ubuntu

- ls: List files and directories.

- cd: Change the current directory.

- pwd: Display the current working directory.

- cp: Copy files or directories.

- mv: Move or rename files/directories.

- rm: Delete files or directories.

- touch: Create a new, empty file.

- mkdir: Create a new directory.

2. Demonstrate Basic Networking Commands in Ubuntu

- ifconfig or ip a: Show network configuration.

- ping <hostname>: Check connectivity to a host.

- netstat or ss: Display network statistics.

- traceroute <hostname>: Trace the route packets follow.

- nslookup <domain>: Resolve domain names.

- curl <URL>: Fetch data from a URL.

- wget <URL>: Download files from a URL.

3. Check for File Existence in Ubuntu

- Use this script:

```
if [ -f /path/to/file ]; then

    echo "File exists."

else
```

```
    echo "File does not exist."

  fi
```

4. Demonstrate the Vi Editor and Its Modes

- Open the editor: vi <filename>.

- Modes:

  - Command Mode: Default for commands.

  - Insert Mode: Press i to insert text.

  - Visual Mode: Press v for selection.

- Save and Exit:

  - :w: Save.

  - :q: Quit.

  - :wq: Save and quit.

5. Installation and Configuration of Apache Server

1. Install Apache:

```
sudo apt update

sudo apt install apache2
```

2. Start and enable Apache:

```
sudo systemctl start apache2

sudo systemctl enable apache2
```

3. Test: Open http://localhost in a browser.

6. Demonstrate Design Tool Argo UML

1. Download ArgoUML from its official website.

2. Run it using:

```
java -jar argouml.jar
```

3. Use it to design UML diagrams such as class or sequence diagrams.

7. Steps to Install Git on Ubuntu

1. Install Git:

    sudo apt update

    sudo apt install git

2. Verify installation:

    git --version

3. Configure Git:

    git config --global user.name "Your Name"

    git config --global user.email "you@example.com"

8. Track Bugs Using Bugzilla

1. Set up Bugzilla by following its official installation guide.

2. Log in to the Bugzilla interface.

3. Create and track bugs using the provided tools.

9. Track Bugs Using Trac

1. Install Trac:

    sudo apt update

    sudo apt install trac

2. Initialize a project:

    trac-admin /path/to/project initenv

3. Start and use the Trac web interface.

10. Create a College Website Using Bootstrap

1. Include Bootstrap in your HTML:

```
<link                    rel="stylesheet"
```
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css">

2. Use Bootstrap components (e.g., navigation bars, buttons) to build your site.

11. Steps to Create a Wikipedia Account and Page

1. Visit Wikipedia (https://www.wikipedia.org).

2. Click Create Account and fill in the form.

3. Log in, click Create an Article, and follow Wikipedia's content guidelines to create a page.

12. Update Mozilla Firefox

- Use this command:

```
sudo apt update

sudo apt install --only-upgrade firefox
```

13. Build a Website with Joomla 4

1. Download Joomla 4 from joomla.org (https://www.joomla.org).

2. Install it on your web server.

3. Use Joomla's admin panel to design and configure your website.

14. Demonstrate LibreOffice Tools

   - Writer: For creating and editing documents.

   - Calc: For spreadsheets and calculations.

   - Impress: For presentations.

   - Draw: For flowcharts and vector graphics.

   - Base: For managing databases.

   - Math: For formula editing.

15. Steps to Install GNU Compiler (GCC)

1. Install GCC:

   sudo apt update

   sudo apt install gcc

2. Verify the installation:

   gcc --version