

# NETFLASK

This is a Python Flask web app that provides basic network troubleshooting and information gathering functionality, including ping test, DNS and IP lookup, traceroute, port scanner, and web scraping.

## Modules:

- Ping Test: Tests the reachability of a host by sending ICMP packets.
- DNS and IP Lookup: Retrieves DNS information and performs a reverse lookup for a given IP address.
- Traceroute: Traces the path that packets take from the server to a specified host.
- Port Scanner: Scans for open ports on a specified host.

## Installation

1. Clone this repository to your local machine.
2. Create a virtual environment: `python -m venv env`.
3. Activate the virtual environment: `source env/bin/activate` (on Linux/Mac) or `.\env\Scripts\activate` (on Windows).
4. Install the required dependencies: `pip install -r requirements.txt`.
5. Start the Flask development server: `python app.py`.
6. Open your web browser and navigate to `http://localhost:5000`.

## Usage

The home page of the web app provides links to each of the modules. Simply click on the desired module and follow the on-screen instructions to enter the necessary input.

## Login

The default login credentials are `nargis:1234`. Please change the password after logging in for the first time.

## Dependencies

This project requires the following dependencies:

- Flask==2.1.2
- Jinja2==3.0.2
- MarkupSafe==2.0.1
- Werkzeug==2.0.2
- argparse==1.4.0
- dnspython==2.1.0
- itsdangerous==2.0.1
- nmap==0.6.7
- requests==2.26.0
- six==1.16.0
- urllib3==1.26.7

## Student Details:

**NAME** : NARGIS GULHASAN SHAH  
**ENROLMENT** : 59  
**SUBJECT** : ITL 4  
**CLASS** : 3<sup>RD</sup> YEAR IT