

# DCN Lab - How to run NS2 programs (selected experiments)

These are the NS2 (Tcl) experiments you specifically asked to practice.

## Folder structure

```
ns2_programs/      # All NS2 Tcl scripts
```

## Requirements

NS2 runs on Linux. On Ubuntu/Debian (or WSL) you can install:

```
sudo apt install ns2 nam
```

## How to run NS2 scripts

```
ns <file>.tcl
nam <file>.nam      # opens the network animator GUI
```

| #  | Topic                           | File                  |
|----|---------------------------------|-----------------------|
| 22 | Connect two nodes               | 22_two_nodes.tcl      |
| 23 | Star topology                   | 23_star_topology.tcl  |
| 24 | Mesh topology                   | 24_mesh_topology.tcl  |
| 25 | Bus topology                    | 25_bus_topology.tcl   |
| 26 | Stop and Wait (TCP + FTP)       | 26_stop_and_wait.tcl  |
| 27 | Sliding window (TCP + FTP)      | 27_sliding_window.tcl |
| 28 | Star topology (duplicate of 23) | 28_star_topology.tcl  |
| 29 | Token ring (TCP + CBR)          | 29_token_ring.tcl     |
| 30 | Token bus (TCP + CBR)           | 30_token_bus.tcl      |

## Notes on practicing in VS Code

- For Tcl/NS2 syntax highlighting, install the Tcl extension.
- NS2 itself needs Linux (or WSL on Windows). The `.tcl` files open fine in VS Code on any OS, but actually *running* them requires NS2 on Linux.

For information about the C programs, see the companion file `how-to-run-c-programs.md`.