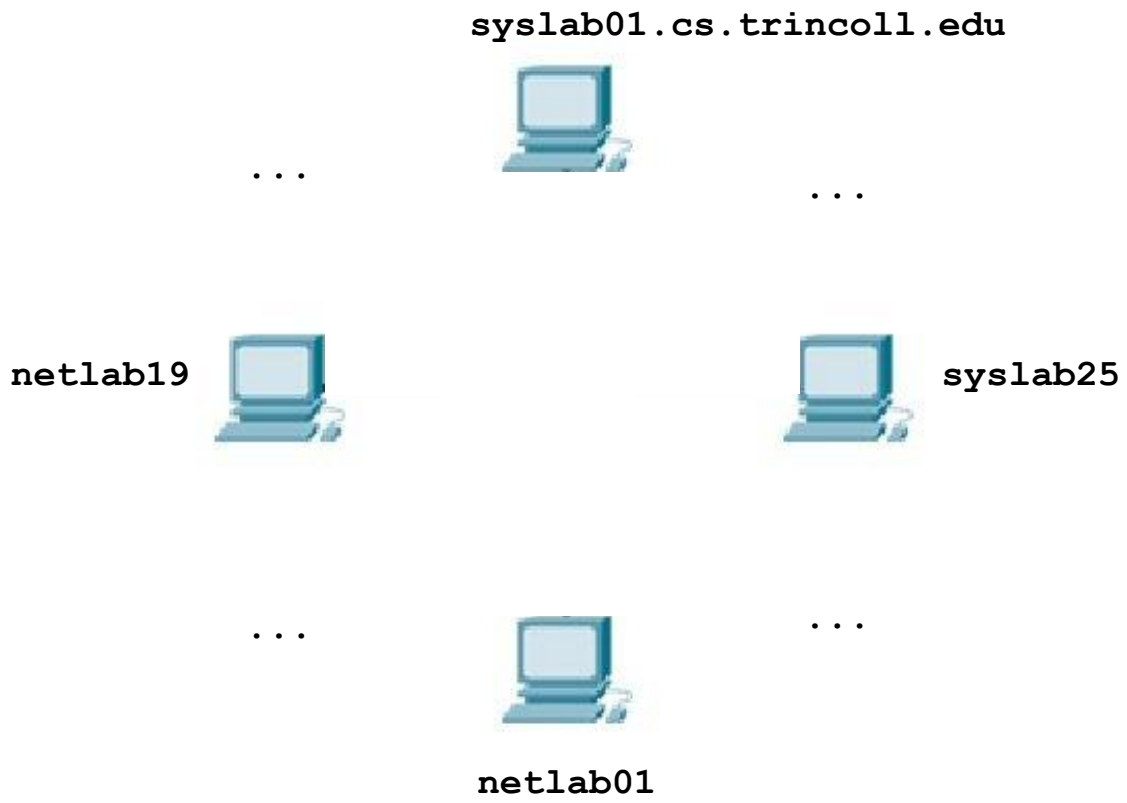
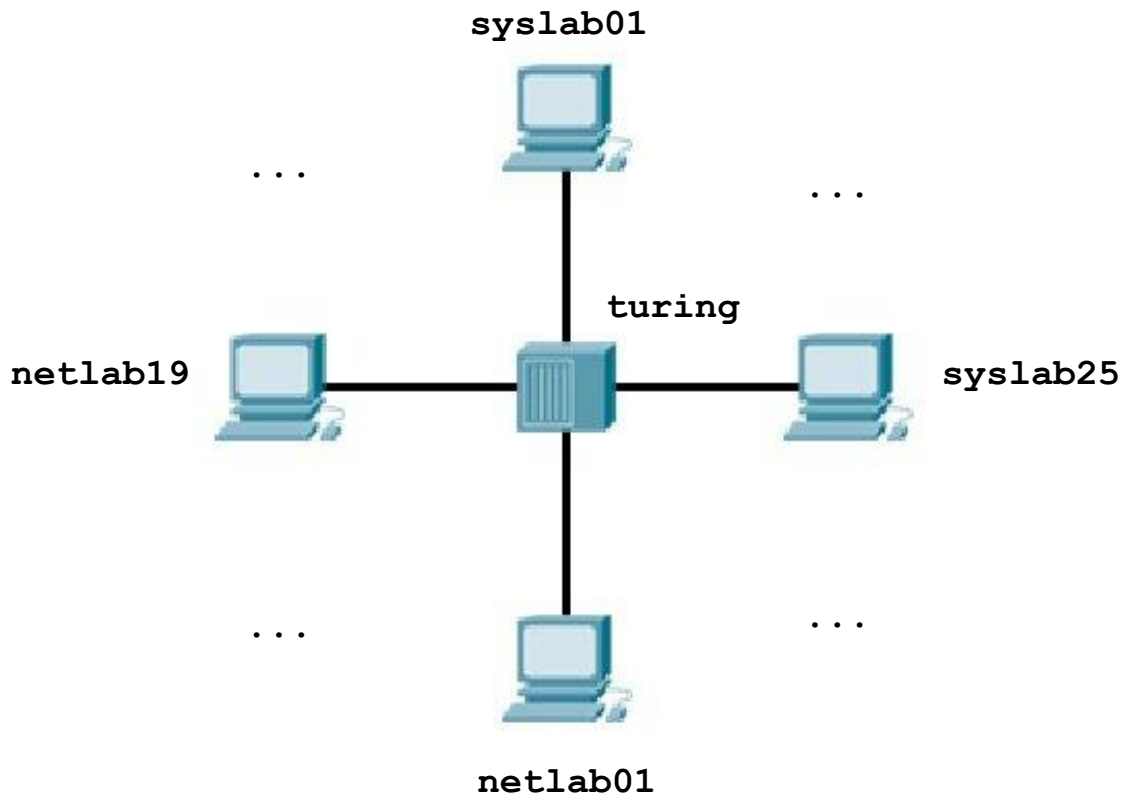
# Announcements

- No lecture on Wednesday
- Lab policy
  - Designed to be completed by 4:10 p.m.
  - If you need extra time,
    - Wednesday Lab: Show your work to a TA by 9:00 p.m. on Wednesday.
    - Thursday Lab: Show your work to Prof. Yoon by 10:50 a.m. on Friday.

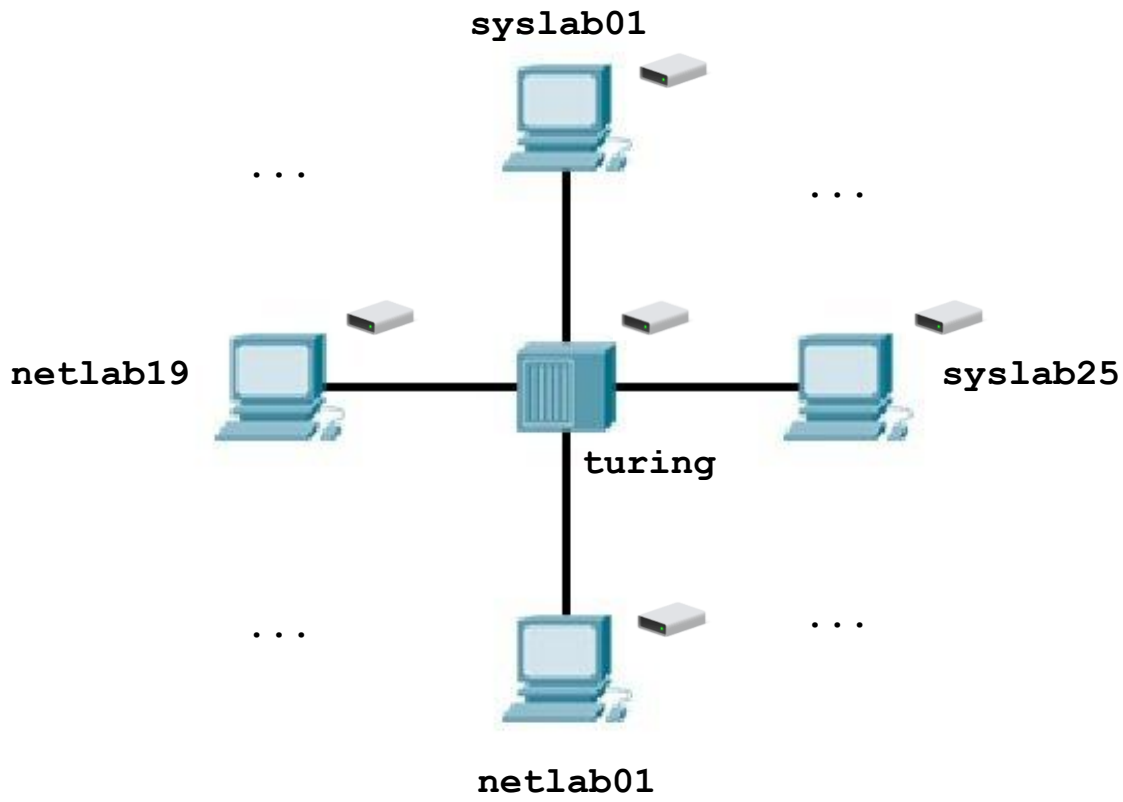
# Working with a networked system



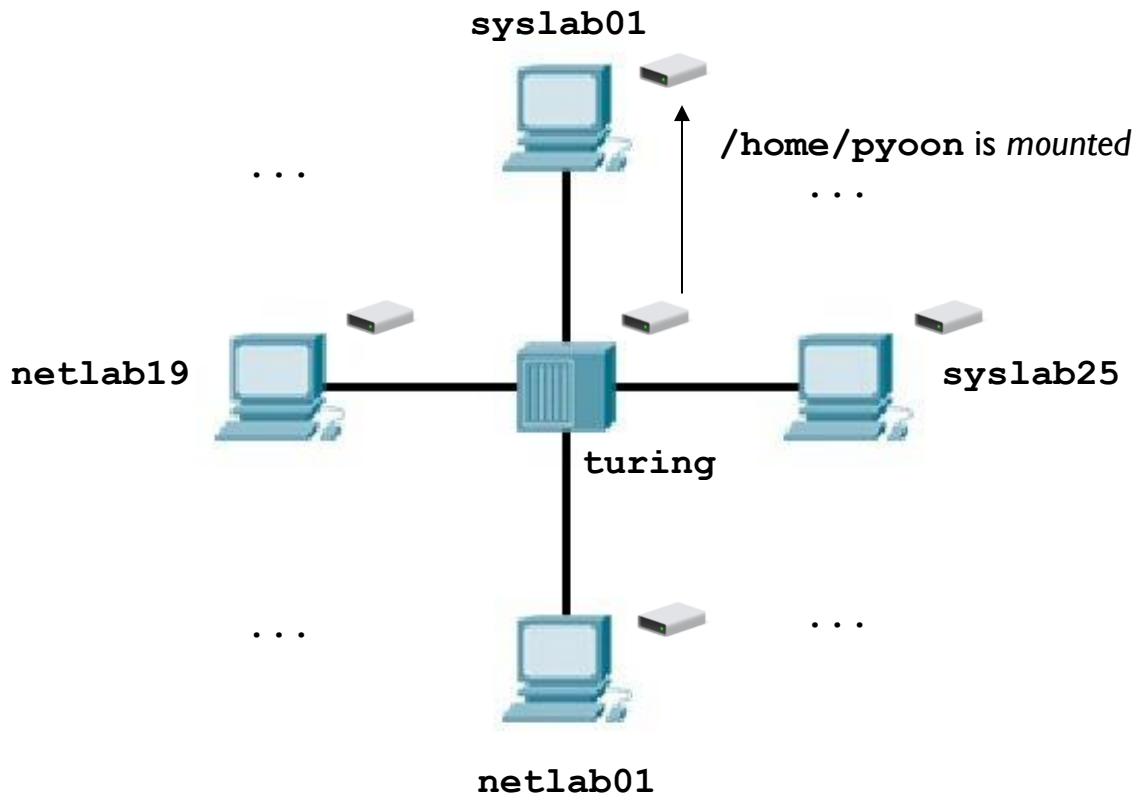
# Working with a networked system



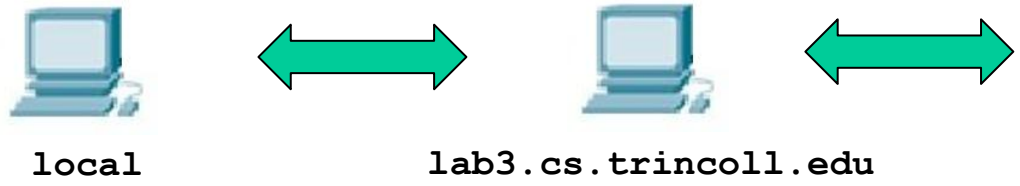
# Working with a networked system

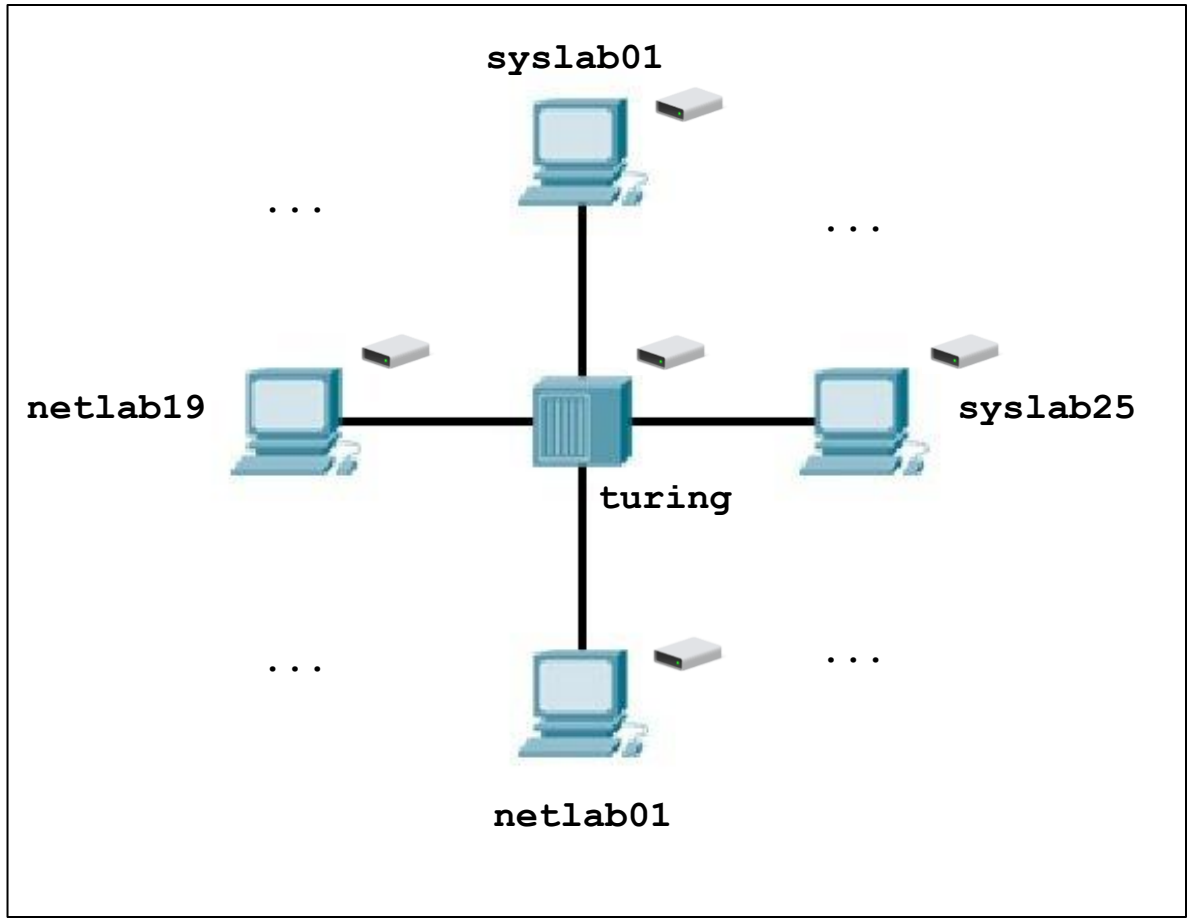


# Working with a networked system



# Working with a networked system remotely



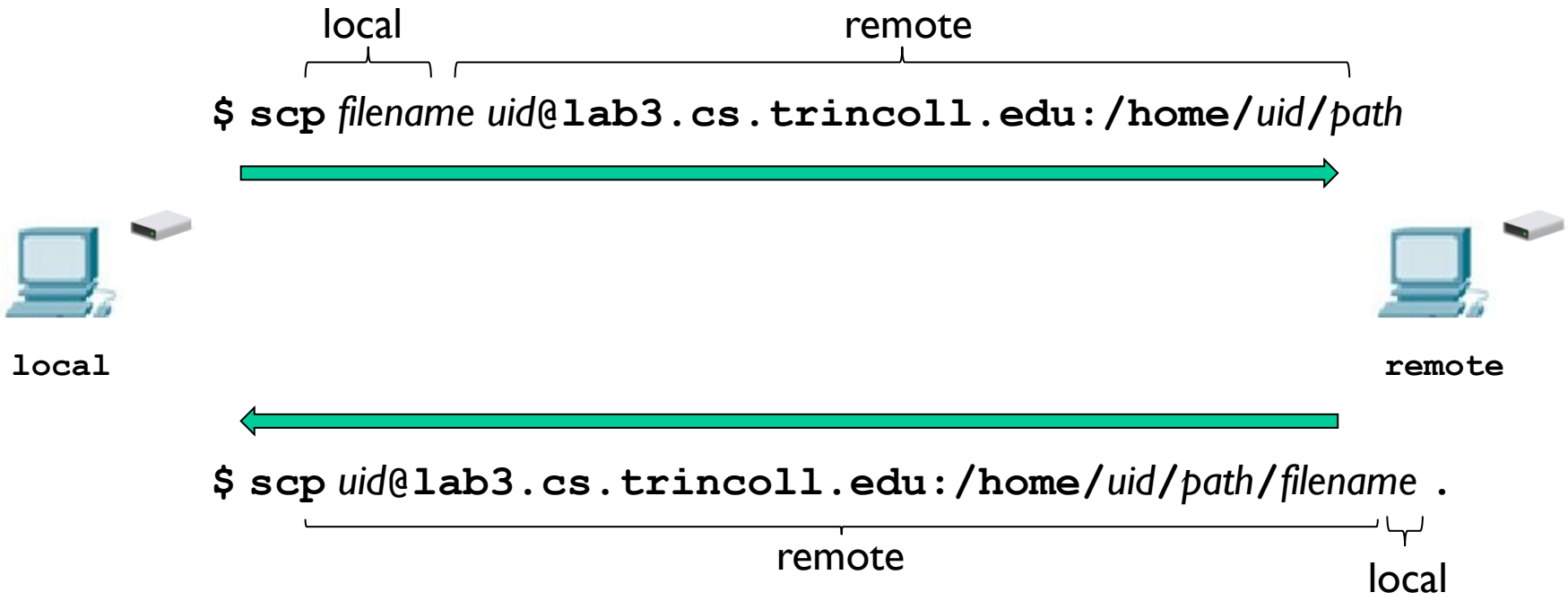
# To connect to the CS network

- Open a terminal on your local computer
  - Windows: *cmd*
  - MacOS: *Terminal*
- Enter the following command:

  **`$ ssh`** *uid*`@lab3.cs.trincoll.edu`

  where *uid* is your username.
- When asked for your password, enter your Trinity password.

# Moving files between the hosts



# Moving files between the hosts

- From *local* to *remote*

  **`$ scp`** *filename uid*`@lab3.cs.trincoll.edu:/home/`*uid/path*

  where *uid* is your username and *path* is a directory.

- From *remote* to *local*

  **`$ scp`** *uid*`@lab3.cs.trincoll.edu:/home/`*uid/path/filename* `.`

  where `.` is the current working directory.

- SSH login without password (See Resources)

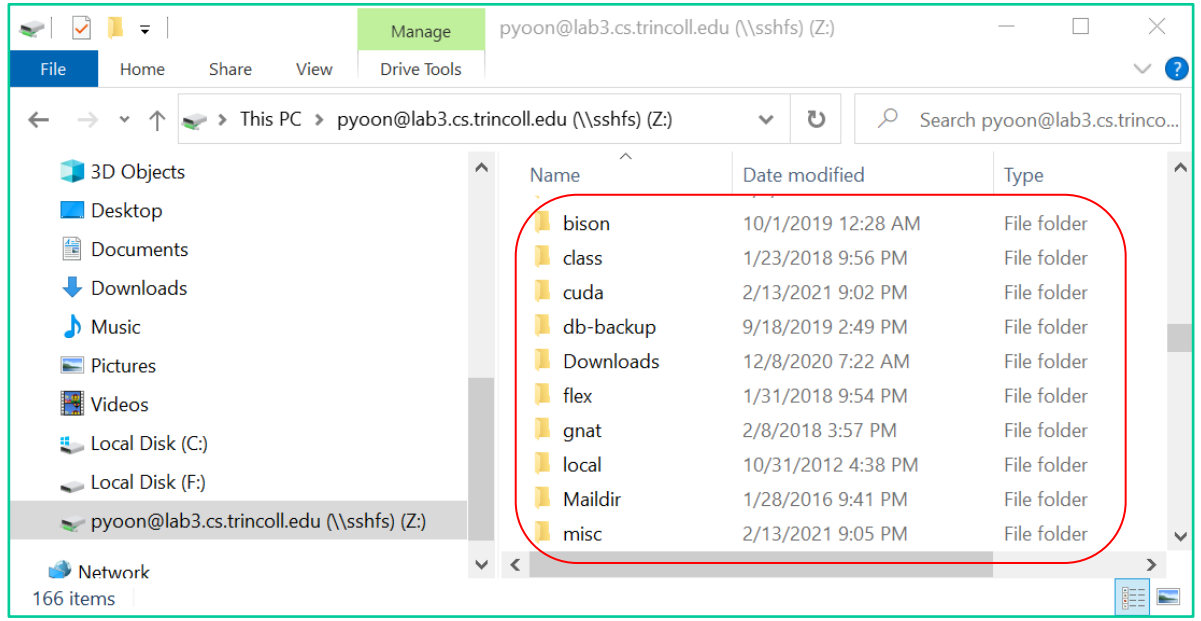
# Mounting remote file systems automatically

- Linux:

  **#** **`mount`** *device mount_point*

  **#** **`umount`** *mount_point*

- Windows/MacOS
  - How to use **`sshfs`** to mount remote file systems over **`ssh`** (See Resources)



# Shift Operations

- Left Shift: **`x << n`**
  - Shift bit-vector **`x`** left **`n`** positions
    - Throw away extra bits on left
    - Fill with 0's on right
- Right Shift: **`x >> n`**
  - Shift bit-vector **`x`** right **`n`** positions
    - Throw away extra bits on right
  - Logical shift
    - Fill with 0's on left
  - Arithmetic shift
    - Replicate most significant bit on left

| Argument `x` | `01100010` |
|---|---|
| `<< 3` | `00010000` |
| Log. `>> 2` | `00011000` |
| Arith. `>> 2` | `00011000` |

| Argument `x` | `10100010` |
|---|---|
| `<< 3` | `00010000` |
| Log. `>> 2` | `00101000` |
| Arith. `>> 2` | `11101000` |