

# Further Details on Development Environment

- ◆ x86 machines
  - Using VirtualBox to import the provided .ova file
- ◆ ARM-based machines (e.g., Apple M1 or M2)
  - Option 1: Using a cloud service (e.g., AWS Lightsail)
    - Select the same environment (Ubuntu 22.04) from VM options
  - Option 2: Emulating x86 using UTM
    - <https://github.com/utmapp/UTM>

# Option 1: Using a cloud service: AWS Lightsail

- ◆ **Note:** This is for ARM-based machines, which do not support x86 VMs
  - *e.g.*, Apple M1 or M2 laptops (not Apple machines with Intel processors)
  - It is not required for those with x86 machines
  - Your submission must not include any VM-related artifacts (*e.g.*, .ova file)
- 1. Sign in to AWS Lightsail (<https://lightsail.aws.amazon.com/>)
- 2. Create an instance with the appropriate platform
  - Linux/Unix (platform) and Ubuntu 22.04 LTS (blueprint)
- 3. Start the instance
  - Now, this instance runs on an AWS-owned machine, not on your machine
- 4. Connect using SSH and implement your server
- 5. Add an IPv4 firewall rule for HTTP with ports other than 80 (for test)