Using Netkit, implement the network depicted in the figure and described below (you can use the following as a checklist).

- Routing is implemented by using statically configured routes.
  - Remember to set a default route on all network nodes that do not act as routers (including l4switch; pay special attention to ns because a default route alone is not enough on that machine).

- ws1, ws2, and ws3 are web servers running apache2; they serve a single default page, which is different for each server.

- l4switch is a layer 4 web switch that implements a round robin load balancing policy. Use the following commands to properly set it up:

```
iptables -t nat -A PREROUTING -d 1.0.0.4 -m statistic --mode nth --every 2 -j DNAT
iptables -t nat -A PREROUTING -d 1.0.0.4 -j DNAT --to-destination 10.0.0.3
```

- ns-local, ns-root, ns-com, and ns-eyesbook are name servers running bind.
  - ns-local is a local name server on its own LAN; ns-root is the root name server; ns-com is the authority for zone com; ns-eyesbook is the authority for zone eyesbook.com.
  - The only meaningful DNS name is www.eyesbook.com, corresponding to the web service offered by the two server farms.
  - ns-eyesbook implements a round robin load balancing policy on name www.eyesbook.com (note: do not use location-based load balancing).

**Goals:**
- pc must be able to access web page http://www.eyesbook.com/ using the links web browser.
- The load balancing mechanisms implemented by the DNS and the web switch must be observable (using ping, dig, or links).
Using Netkit, implement the network depicted in the figure and described below (you can use the following as a checklist).

- Routing is implemented by using statically configured routes.
  - Remember to set a default route on all network nodes that do not act as routers (including wswitch; pay special attention to ns2 because a default route alone is not enough on that machine).
- www1, www2, and www3 are web servers running apache2; they serve a single default page, which is different for each server.
- wswitch is a layer 4 web switch that implements a round robin load balancing policy. Use the following commands to properly set it up:
  ```sh
  iptables -t nat -A PREROUTING -d 1.0.0.4 -m statistic --mode nth --every 2 -j DNAT --to-destination 10.0.0.2
  iptables -t nat -A PREROUTING -d 1.0.0.4 -j DNAT --to-destination 10.0.0.3
  ```

- ns1, ns2, ns3, and ns4 are name servers running bind.
  - ns1 is a local name server on its own LAN; ns4 is the root name server; ns2 is the authority for zone com; ns3 is the authority for zone eyesbook.com.
  - The only meaningful DNS name is www.eyesbook.com, corresponding to the web service offered by the two web clusters.
- ns3 implements a round robin load balancing policy on name www.eyesbook.com (note: do not use location-based load balancing).

**Goals:**
- **host** must be able to access web page http://www.eyesbook.com/ using the **links** web browser.
- The load balancing mechanisms implemented by the DNS and the web switch must be observable (using **ping**, **dig**, or **links**).
Using Netkit, implement the network depicted in the figure and described below (you can use the following as a checklist).

- Routing is implemented by using statically configured routes.
- Remember to set a default route on all network nodes that do not act as routers (including `ws`; pay special attention to `dnscom` because a default route alone is not enough on that machine).
- `web1`, `web2`, and `web3` are web servers running apache2; they serve a single default page, which is different for each server.
- `ws` is a layer 4 web switch that implements a round robin load balancing policy. Use the following commands to properly set it up:

```
iptables -t nat -A PREROUTING -d 1.0.0.0/24 -m statistic --mode nth --every 2 -j DNAT
```

- On a single line: `iptables -t nat -A PREROUTING -d 1.0.0.4 -m statistic --mode nth --every 2 -j DNAT
- iptables -t nat -A PREROUTING -d 1.0.0.4 -j DNAT --to-destination 10.0.0.2`

- `dnslocal`, `dnsroot`, `dnscom`, and `dnseyesbook` are name servers running bind.
- `dnslocal` is a local name server on its own LAN; `dnsroot` is the root name server; `dnscom` is the authority for zone `com`.
- `dnseyesbook` is the authority for zone `eyesbook.com`.
- The only meaningful DNS name is `www.eyesbook.com`, corresponding to the web service offered by the two server farms.
- `dnseyesbook` implements a round robin load balancing policy on name `www.eyesbook.com` (note: do not use location-based load balancing).

**Obiettivi:**
- `client` must be able to access web page `http://www.eyesbook.com/` using the `links` web browser.
- The load balancing mechanisms implemented by the DNS and the web switch must be observable (using `ping`, `dig`, or `links`).