



Using Kathará, implement the network shown in the figure and described below.

- Routing in this network is to be implemented with RIP.
- **ns-root**, **ns-test**, and **ns-local** are name servers:
  - **ns-root** is the root name server;
  - **ns-test** is the authority for **test**;
  - **ns-local** is a local name server that serves requests from machines within **40.0.0.0/24**. Observe that the nameserver is located in a LAN that is different from the one of the client. Hence, to allow the recursive lookup the following configuration must be used.
 

```
options {
    allow-recursion { 40.0.0.0/24; };
}
```
- **web1** and **web2** are Web servers that run apache2:
  - both servers are assigned the DNS name **server.test**; a suitable DNS-based policy is set up to dispatch web page requests to **web1** and **web2** in a balanced way; in order to implement such policy, add to the applicable name servers two records with type **A** for the same name **server.test** and with the IP addresses of the two servers;
  - both servers offer a single web page available at `http://server.test`

**Goal:** **client** must be able to access the Web page exposed by user guest on **server.test** by using **links**. Moreover, it must be verified that the Web page is alternately served by each one of the two Web servers (this may require restarting **links**).