Using Netkit, implement the network depicted in the figure and described below.

- **client** and **web** are standard end hosts. **web** has domain name **web.roma3.it**.
  - Remember to set a default route on all network nodes that do not act as routers.
- **r1**, **r2**, **r3**, and **r4** are routers statically configured.
- The DNS hierarchy is as follows:
  - **root** is the root name server.
  - **it** is authority for the domain “.it”; its name is “dns.it”.
  - **roma3** is authority for the domain “roma3.it”; its name is “dns.roma3.it”.
  - **local** is the local name server for **client**.

### Goals:

**client** must be able to ping **web** (ping **web.roma3.it**).

The traffic generated inside the collision domain **A** must pass through routers **r2**, **r1** and **r4** while the traffic generated inside the collision domain **B** must pass through routers **r4**, **r3** and **r2**.